

# Information Technology

## CBSE Code: 402 (NSQF) Class IX and X

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# Class IX

## PART A: Employability Skills

### Unit 1: Communication Skills

#### SESSION 1: Communication Cycle

##### Exercise

**1. List the main components of communication process.**

The main components or elements of communication process are sender, message, encoding, communication channel, receiver, decoding and feedback.

**2. Who is responsible for the encoding of the message?**

Encoding of the message is done by the sender before sending it to the receivers.

**3. Who is responsible for decoding the message?**

Decoding of the message is done by the receiver after receiving the message.

**4. List 3 scenarios of technology based communication?**

Three scenarios of technology communication are conversation over telephone, online chat and video conferencing.

**5. What do you mean by the channel of communication? Give some examples.**

The medium of communication is called communication channel such as oral, written, technology based.

##### Exercise

**1. Describe a scenario where all the major factors of effective communication come in effect.**

One such scenario is classroom. Sender and receiver are teacher and students respectively. The mutually accepted communication code is the discipline in the classroom wherein students will pay attention to what teacher is explaining. Teachers encodes the message ie simplifies the concept to be taught with her explanation. Students receive the message and with their attentive mind, try to understand the explanation given by the teacher (decoding). Then teacher enquired whether they understood the concept or not by asking questions. This is feedback.

**2. List any 4 most important characteristics of effective communication.**

1. Communication should be clear in content and purpose.
2. Communication should be complete with least scope of questions.
3. Communication should be based on right facts and should not be vague.
4. Effective communication leads to desired output and achievements.

**3. Relate a real life scenario depicting communication barrier of environment.**

During summers, a hot classroom is there with students and teachers. Due to the heat, students find it difficult to concentrate on what teacher is explaining and teacher is also uncomfortable.

**4. Give real life example of communication barrier due to personality traits of the communicators.**

A person who is not well conversant in English is trying to sell an item to a customer who understands English only. Another example: two persons from vastly different culture say Japan and India, trying to exchange their ideas for the first time.

**SESSION 2: Methods of Communication**

**Exercise**

**1. Describe a scenario where oral communication is most effective as compared to written.**

Teacher's explanation in the classroom, a leader addressing a gathering of people, two persons discussing a matter to resolve a dispute between them.

**2. List any 3 scenarios where written communication is most effective.**

Written communication is most effective in formal setups like official orders, legal notices, agreement with terms and conditions, pact signed between two governments etc.

**3. List any 2 major advantages and disadvantages of non-verbal communication.**

Advantages of Non-verbal Communication

1. Non-verbal communication complements oral and audio visual communication.
2. It substitutes for the verbal communication like speaking with proper eye contact and tone.

Disadvantages of Non-verbal Communication

1. Sometimes non-verbal communication becomes vague and send wrong signals.
2. You cannot stop non-verbal communication.

**4. List any 3 major advantages and disadvantages of AV communication.**

Advantages of AV Communication

1. Use of internet and video conferencing saves cost incurred otherwise on scaling geographical barriers, physical movement of participants and other related expenses like lodging, food etc.
2. It is an effective way to explain complex ideas and concepts easily.
3. Technology makes it reusable and easy to distribute.

Disadvantages of AV Communication

1. It incurs a lot of cost in infrastructure.
2. It needs maintenance of equipment.
3. Technology and equipment can be complex to operate and learn.

**SESSION 3: Communication Perspectives**

**Exercise**

**1. Describe a scenario where your visual perspective affected your decoding of a message.**

Seeing a man in plain, simple clothes with ordinary personality and we assume that the person is not very bright and not sufficiently wealthy while actually he could be a learned college professor earning a handsome salary.

**2. Relate an example where you interpreted a message depending on your past experiences.**

After receiving a bad response from the customer care persons of the company which sold me a TV, I did not buy air conditioner from them.

**3. What do you mean by prejudice?**

Believing the information about someone without verifying the facts and disliking the person accordingly is called prejudice.

**4. How our beliefs, emotions and environment influence our communication perspective?**

We relate with people according to our value system and beliefs. During communication, our negative emotions affect the process badly. Reacting in anger spoils the conversation. Our environment determines how we communicate. When we are with friends on a picnic, our style of communication is different as compared to that in the classroom in front of teacher.

**SESSION 4: Basic Writing Skills**

**Exercise**

- Types of Phrase: pleasantly surprised (adverbial), meeting her friend (verb), at the airport (prepositional), had been sitting (verb), the waiting lounge (noun), Lata spotted her (verb), both shared (verb), a lot of experiences (adjective), of their exciting lives (adjective), time flied very fast (noun, verb and adverb mix), boarded the same flight (verb), bound to Mumbai (noun).

2.

NOUN	PRONOUN	VERB	ADJECTIVE	ADVERB	PREPOSITION	CONJUNCTION	INTERJECTION
Girl	Her	Lived	Poor	Very much	On	Who	Wow
Anna	She	Thought	New	Suddenly	In	So	Alas
Mother		Loved	Useful		To	And	
Year		Thinking	Beautiful			Which	
Gift		Sew	Long			But	
Hair		Buying	Colourful				
hair ribbons		Wished	Too old				
Clothes		Buy	Shining				
Villagers		Did	Enough				
set of needles		Got	Short				
Threads		Called					
glass box		Said					
Money		Have					
Idea		Saying					
eve of new year		Removed					
Cap		Showed					
Barber		Bought					
		Selling					

**Exercise**

**A. Fill in the blanks with the suitable article:**

- the
- The
- An
- A
- The
- An
- An, the
- the

**B. Is there anything wrong with these sentences? Why?/ Why not?**

“The” will not be used before nouns here.

- |  |                           |
|--|---------------------------|
| 1. My brother plays cricket.             | Abstract Noun             |
| 2. She likes chocolates.                 | Plural noun               |
| 3. Everything that glitters is not gold. | Name of metal             |
| 4. I returned the book to Ram.           | Proper noun - Ram         |
| 5. Breakfast is ready.                   | Abstract noun - breakfast |
| 6. My favourite colour is blue.          | Name of the colour        |

## Exercise

Traveling is fun with adventure. It is a good hobby as it presents opportunities to visit new places and meet interesting people. Travelling lets us make new friends in far places. We get to learn about various cultures, a variety of languages and cultures. Visit to different places enhances knowledge, we meet different people. It accounts for good for health since a tourist is an active and dynamic person. Travelling keeps us fit. Travelling is also a good career option. One can write about the places travelled and publish them in the form of books, blogs and articles. When we meet different cultures and people, we develop an understanding about them, It inculcates good habits such as patience, care, love and concern for others. Overall benefit of travelling is that it improves personality. The only downside of travelling is that it is an expensive hobby. It needs money to travel to different places. Food, stay and other related expenses make it an exclusive hobby. It also claims a lot of time.

## Assessment

### 1. What do you mean by the term Communication? List the features of effective communication.

Communication is a process to give to and receive information from others. Interacting with others while exchanging information is called Communication. The features of effective communication are:

- Effective communication is clear, complete and based on right facts.
- In written form, communication is be concise and to-the-point.
- Good communication develops relationships, promotes confidence and creates goodwill.
- Effective communication leads to desired output and achievements.
- Effective communication establishes responsibility and accountability.
- It provides right kind of persuasion, guidance and consultation.

### 2. You need to prepare for a classroom presentation of 10 minutes. How will you ensure effective communication while presenting?

Following points will ensure effective communication during peresentation:

1. The purpose and objectives of presentation should be mentioned clearly.
2. The language of explanation should be simple and correct.
3. Explanation should cover right facts, clearly and in crisp manner.
4. The voice, expressions and gestures should reflect confidence.
5. There should be some time spared for audience to have their queries cleared.

### 3. Describe any 2 communication barriers.

1. Barriers to effective listening: We jump to conclusions. Mind gets lost in thoughts while listening. Our emotional state, our capacity of patience, our temperament, likes and dislikes are common barriers in effective listening. Sincere and attentive listening is required for receiving and decoding of the message sucessfully.
2. Barriers related to the personality traits of the communicators: We sometimes exhibit following behavioural or personal traits which act as barriers to effective communication:
  - Behaviour due to age difference, attitude, gender, cultural and social differences etc.
  - Proficiency of the sender and the receiver in the language they are using to communicate.
  - Ailments, disappointments, personal grudges and hidden intentions.

**4. You are conversing with your friend about something important in a roadside open café in a crowded market. Your friend has to rush to receive his mother from the airport also. What are the communication barriers in this scenario? How these could have been taken care of?**

This is an example of situational barrier. Noise and other distractions are there. Friend is also in rush to airport. These barriers could have been avoided by fixing a prior appointment with the friend and deciding a quiet place to converse.

**5. Briefly explain the terms Coding and Decoding taking a simple example.**

Coding or encoding means how the message has been communicated by the sender. If the manner of the message is rude or offensive or if the message is not clear or incomplete then message is not encoded correctly.

For example:

Authoritative message - I want the report on my table first thing in the morning without any excuses.

Normal message – Please manage to get the report tomorrow for sure so that things are not delayed further.

Decoding means how the message has been interpreted by the receiver.

Authoritative message - I want the report on my table first thing in the morning without any excuses.

– here, receiver feels offended and pinned down. He is demotivated to prepare the report and may not do it by inventing a genuine looking excuse.

Normal message – Please manage to get the report tomorrow for sure so that things are not delayed further. – here, message is levelled. It respects the receiver and prompts him to prepare the report.

**6. Describe communication cycle with a simple example.**

Communication Cycle involves following elements. Communication channel is oral, face-to-face.

Sender: Your article needs too many corrections and modifications before we send it to print. [Here message is not encoded effectively]

Receiver: I spent whole night, cutting on my sleep preparing this article. [Here, receiver has not taken the critique positively. He responds by giving an excuse. (Feedback)]

Sender: We really appreciate your effort in getting that article ready in such a short time but there are certain parts of it we need you to look at and revise before we get it into print. [Message is re-encoded in a better form after feedback from the receiver]

Receiver: Okay, let me know which parts and I shall redo it. [Receiver has decoded the message as desired since it was encoded well after the feedback]

**7. How is oral communication different from written communication?**

ORAL COMMUNICATION	WRITTEN COMMUNICATION
1. It is fastest and easiest hence more effective.	1. Time taking and more effort is required.
2. Sender and receiver are present in person.	2. Sender and receiver need not be present in person.
3. Suitable for formal and informal modes of conversation.	3. Mostly suitable for formal communication.
4. Creates lesser misinterpretation.	4. Written messages have no emotions and body language involved hence it can be misinterpreted.
5. Cannot be used as evidence.	5. Can be used as evidence of conversation.
6. Cannot be referred to later on.	6. Can be referred to later.

**8. List the advantages of written communication.**

- There is advantage of time for choosing suitable vocabulary and tone of the message. Message can be reviewed before sending.
- It has legal acceptance in most of the cases.
- Longer messages can be created.
- Can be referred to later.
- Written messages can be duplicated and distributed.
- Effective written messages help building good relations.
- With written messages comes responsibility.

**9. List any 4 body language features that influence our communication.**

Voice, gestures, posture, facial expressions.

**10. Explain briefly how verbal and non-verbal communication occur using Audio-visual aids.**

Any verbal or non-verbal communication that involves vision and auditory capability is called audio-visual communication. For example, telephonic conversation involves hearing while video conferencing involves both sense of sight and vision.

Such communication is supported by technology. Telephone equipment, smart phone, Internet, visual displays, speakers, microphones, communication channel, presentation software, models, visual aids, video and audio player software etc. constitute AV communication.

**11. You have to make a presentation on your achievements in school to a global audience including students of other cities over video conferencing. How will you take care of your effective communication?**

Following points will ensure effective communication during presentation:

1. Prepare well and rehearse if possible.
2. Body language should be positive.
3. State the objectives of the presentation first.
4. The language of explanation should be simple and correct.
5. Explanation should cover right facts, clearly and in crisp manner.
6. The voice, expressions and gestures should reflect confidence.
7. There should be some time spared for audience to have their queries cleared.

**8. What are the disadvantages of non-verbal communication?**

Disadvantages of Non-verbal Communication

- Sometimes non-verbal communication becomes vague hence misinterpreted.
- It cannot be stopped.
- It occurs too fast and simultaneously hence difficult to interpret.
- It has cultural and regional differences.

**9. Explain the importance of gestures and eye contact while you speak to someone in person.**

**Gestures:** Gestures make the major part of our body language. Gestures that occur in the control of our subconscious mind convey our state of mind like Movement of hands, fingers, legs. Gestures made consciously are pointing with finger, nodding, waving, envisaging using hands.

**Eye contact:** The way we make eye contact tells a lot about us. Right kind of eye contact reflects confidence and sincerity. Eye contact could be gentle, steady, formal for a few seconds, sweeping, stare or gaze.

**10. How does our attitude determine the effectiveness of our communication?**

Our attitude builds our behaviour and response to a message. Our positive attitude helps us in relating others easily and on good terms. This makes the base of effective and positive communication while out negative attitude builds a hostile environment. We cannot relate with others positively which leads to ineffective communication. A positive attitude means the person is cheerful, open, optimistic, confident and orderly while negative attitude means stubborn, hopeless, bad intent and lack of enthusiasm.

**11. Describe any two factors that influence our perspective in communication.**

**Visual Perspective:** We judge and make decisions on visual perspective like how someone looks and dresses up. Who the person is? How important or unimportant he or she is? etc. In accordance to this visual impression we decide to develop relationship with the person and communicate with him ir her.

**Perspective of language:** Words have different meanings depending on the context. A good listener catches the meaning and intent. Language and figures of speech give different meanings to the message. Synonyms and idioms change our perspective. We should understand the message in its context.

**12. What care should we take while we meet and talk to a person for the first time?**

First we should ensure that the environment and surroundings are suitable to communicate. Our perspective helps us understand people and situations. Our perspective determines how we encode a message as a sender and how we decode it as a receiver. While communicating with others we should use the simple ad suitable language, we should not judge the person through some preconceived notions, out attitude should be positive, and we should not carry any prejudice based on our past experiences. We should also show emotional intelligence.

**13. Ravi met a few people in a party and was mixing up well with those wearing expensive clothing and fair complexion. Which factors are influencing Ravi's perspective towards the people?**

Visual perspective.

**14. How do our past experiences shape our communication perspective? Cite an example.**

Our personal experiences help us develop perspective. If I have a disappointing experience with a service company, I shall avoid using the service of that company in future. Any positive experience helps us meet and relate with people positively.

**15. How is a phrase different from a sentence? Give 2 examples.**

A set of words that indicates some object or action but does not makes complete sense is called a phrase while a group of words that makes complete sense is called a sentence. For example:

Phrase:	a beautiful frock	Sentence:	She is wearing a beautiful frock.
Phrase:	is eating	Sentence:	Raj is eating a mango.

**16. Giving 2 example each, explain Noun, Adjective, Verb and Adverb.**

Noun is name of a person, place, thing, event, animal or idea. For example, *Suman* goes to *school*. I am reading a *book*.

Verb is any action or state of being. Like, Suman *goes* to school. I am *reading* a book.

Adjective describes a noun or pronoun. E.g. I am reading an *old* book. He is wearing a *red* cap.



Adverb describes a verb, another adverb or adjective. E.g. He walked down the hill *quickly*. He looked at her *angrily*.

**17. What is preposition? Give 4 examples of preposition.**

Preposition shows the relationship of one noun, pronoun or noun phrase with other. For example, the dog is sitting *under* the table. There are two birds *in* the bush. I kept the pen *on* the table. There is a mango *among* the apples.

**18. How do articles differ in usage for consonants and vowels? Explain with 2 examples.**

Article 'an' is used before vowel sounds and 'a' is used before a consonant sound. For example, He eats an apple daily. Butterfly is an insect. They bought a book. I saw an aeroplane.

**19. Cite 4 examples where article 'The' should not be used.**

Gold is an expensive metal.  
Both Ravi and Raj went on a picnic today.  
I like to eat fruits once a week.  
I selected some fresh fruits from the basket.

**20. What are the basic rules of good paragraph writing?**

1. The topic on which the paragraph needs to be written should be clear.
2. A paragraph should begin with the topic sentence.
3. Major part of paragraph should include the sentences which elaborate on the topic more.
4. Paragraph should end properly with a closing sentence or conclusion.

**21. What do you mean by interjection and conjunction? Explain with 2 examples each.**

Interjection reflects strong emotions, followed by exclamation sign (!). Like, Oh!, Hey!, Wow!, Alas! Etc.

E.g. Hey! Where have you been so long? Wow! This idea of picnic sounds great.

Conjunction connects two words, phrases or sentences. Like: so, but, and, or, therefore etc.

E.g. I would have loved to come for the party, *but* I have my exam tomorrow.

He was down with fever, *so* he didn't come to the school yesterday.

**22. Write a paragraph to describe a train journey you took last.**

On our summer vacations, we planned to catch a late evening train to reach Lucknow overnight. On the day of journey, it was raining heavily. We took a taxi to the railway station. As we reached near the railway station, we got stuck in a thick traffic jam. Afraid of missing our train, we paid to the taxi driver and rushed with our luggage on foot towards the railway station in the heavy rain. Completely drenched in water, when we reached the railway station, found that train was already late by half an hour. We changed our clothes in the wash room in the waiting room. Finally, the train arrived, and we boarded the train. We reached Lucknow the next day early morning welcomed by a bright and pleasant weather.

**23. You need to write an essay about your favourite leader. Which basic writing skills would you apply in doing so?**

An essay includes more than one paragraph. We need to apply following basic writing skills:

1. Correct usage of grammar.
2. Give brief introduction about the leader, describe his qualities as a great leader, his achievements and failures too. How he learnt from his failures. How he influenced people positively and other important incidents of his life.
3. Keeping the sentences simple and short.
4. End the essay with a brief conclusion.

**24. Identify parts of speech in the following paragraph:**

NOUN	PRONOUN	VERB	ADJECTIVE	ADVERB	PREPOSITION	CONJUNCTION
Deforestation	These	Remove	Large	Never	In	When
Humans		Clear				Or
Forest lands		Clearing				And
Areas		Is				Since
Ecosystem		Are				
Trees		Replanted				
Animals		Destroyed				
Living things		Endangered				

**Unit 2: Self-Management Skills**

**SESSION 1: Meaning and Importance of Self-Management**

**Exercise**

**1. What are the benefits of self-discipline?**

The benefits of self-discipline are as below:

- We have a pleasant personality.
- We inspire others too for self-discipline.
- We can think and plan clearly
- Ability to identify our weaknesses and improve upon them
- Realising our strengths and their use
- Self-respect and respect for others
- Understand importance of time
- Higher achievement rate
- People like and respect us.

**2. What do you mean by S.M.A.R.T target?**

SMART targets are clear, crisp and specific. The achievements of targets should be measurable. Targets should be achievable - not too difficult to achieve and too easy on efforts. Targets should be realistic – achievable with our abilities. Targets should be time-bound – they should be achieved in a set timeline.

**3. How is time management important in achieving targets?**

We plan our goals according to the available time and resources. Managing the time includes keeping track of how much time we utilise in achieving our targets and finishing our tasks. We should plan well to avoid spending more than required time on any task. Keeping track of time and utilising the time wisely helps us achieve our targets easily.

## SESSION 2: Building Self-Confidence

### Exercise

#### 1. What are the possible reasons for low self-esteem?

Common reasons behind lack of self-esteem or self-confidence are:

- Fear of the failure.
- Seeking other's approval instead of believing in self.
- Lack of efforts in overcoming weaknesses.
- Lack of initiative for any achievable task.
- Poor or incomplete preparation.
- Missing opportunities
- Not learning from failures.

#### 2. List the factors that influence our self-confidence?

The factors that influence our self-confidence are society, culture and community, exposure to media and physical factors.

#### 3. List some steps that you will deploy to enhance your self-confidence.

Steps to enhance our self-confidence are positive attitude, seek and face challenges, positive self-criticism, setting realistic goals, be helpful, keeping right company, emotionally intelligent and healthy use of social media.

### Assessment

#### 1. What do you mean by the term self-management?

Managing oneself in order to achieve desired goals and targets is called self-management.

#### 2. Why is self-management important for us?

Self-management help us in maintaining right kind of discipline to plan our goals and targets and achieve them with hard and smart work.

#### 3. You need to prepare for the 100 meter race in the annual sports event of your school to be held after 3 months. Which self-magement skills do you need for this.

The self-management required in such scenario are organising self as per the set goals, controlling, reflecting, self-motivation, self-discipline and time management.

#### 3. What does the term S.M.A.R.T. stand for?

S.M.A.R.T stands for Specific, Measurable, Achievable, Realistic and Time Bound.

#### 5. What do you mean by goal and target?

Goal is our aspiration, dream or ambition to achieve something. Once goal is clear, it is divided into short-term SMART targets.

#### 5. What is the meaning of a measurable and realistic target?

Target should be measurable in such a way that we should be able to tell how much is achieved and how much is yet to be done. Realistic target is one that is possible for us to achieve considering our capabilities and ability.

**6. You need to prepare for a computer quiz to be held next week out of your text book. Which SMART targets would you set for yourself?**

I will check how many chapters in the book need to be prepared. I will prioritise the chapters on the basis of their difficulty and length. Then, I will decide the number of chapters to be covered daily in 6 days.

SMART target:

I will cover N chapters in N hours each day for the quiz.

**7. How does procrastination affect our progress towards our goals?**

Many a times we tend to keep on doing the tasks we like and ignore the other important ones. This is called procrastination. This unknowingly leads to wastage of time and irresponsible behaviour.

**8. How does identifying goals and setting targets ease our preparation in achieving something?**

Identifying goals gives us the clarity of what we need to achieve. It also gives us direction and focus. Targets help us achieving the goal by steadily working towards it. Goal is split into short term targets to be achieved one by one and finally reach the goal.

**9. After achieving a goal, how does reflection help you further?**

After achieving the goal, reflection helps us in improving further. It shows us the positive or negative difference. In case of negative difference, we shall look for what went wrong and a how to avoid it next time. Positive difference motivates us to do even better in future.

**11. What is the importance of time management? Why do we have a time table in school?**

Time management helps us understand the importance of time. We avoid activities that waste our time and instead utilise it in achieving our goals. Time table in school is the best example of time management. It helps to cover all the subjects in a given time period. It also ensures that students easily learn and understand the subjects and teachers can easily cover the course. Also, along with studies, other cocurricular and extra-curricular activities could be performed.

**12. How do prioritisation and self-discipline help us in managing time?**

Prioritisation helps us finish important tasks in time. Self-discipline helps us in working towards our goals sincerely.

**13. List any 4 major reasons behind lack of self-confidence.**

Four major reasons behind lack of self-confidence are fear of failure, making weaknesses an excuse, lack of initiative and not being prepared.

**14. How does preparation of something helps in retaining your self-confidence?**

When we are prepared, we know what we are supposed to do in achieving our goals. This naturally gives us self-confidence. Being well informed and suitably prepared is half the battle won. When we are prepared, we are confident. We must utilise time to prepare for what we have to achieve.

**15. Explain any 2 factors that build a person's self-confidence.**

Exposure to Media and Online Social Platforms: We learn a great deal about the outside world from media, movies and the internet. They mould our thoughts and influence our personality. Negative influences like cyber bullying, crime, violence badly affect our personality and the way we perceive the world. Positive influences like learning about other cultures, stories of achievements and inspirations, encourage us to develop a positive personality.

**Physical Factors:** Impressive physical appearance, pleasant personality and sound mental health are keys to the development of our self-confidence. Instead of worrying about our looks, we must focus on carrying ourselves well, etiquette and manners, confident and positive outlook.

**16. How does media influence our belief system and values?**

Our thoughts are influenced by what we from outside world through television, newspapers, magazines, movies and the internet. Movies, programs, news and online interactions mould our thoughts and influence our beliefs and personality. Negative influences like crime and violence badly affect our personality. Positive influences like cultures, stories of achievements and inspirations, sports, responsible use of social media encourage us to develop a positive and balance belief system and values.

**17. List certain ways to build one's self-confidence.**

Certain ways to build one's self-confidence are having a positive outlook and attitude, always look for new challenges, self-criticism for self-improvement, setting realistic goals and SMART targets, keeping positive people in company, being emotionally stable and controlled and responsible use of social media.

**18. How will you ensure preparedness while working towards a goal?**

Being well informed and suitably prepared is half the battle won. By right planning, setting clear goals and identifying SMART targets we can prepare well for our achievements. Practicing time management and self-discipline helps us prepare better.

**19. How does keeping right company and healthy use of social media shape your self-confidence?**

Feedback from people to learn is good but those who discourage us must be avoided. We should have company of positive people having positive mental framework.

Social media is a tool to learn, explore, meet others and stay friends. Do not let social media be a manipulating tool of yourself. Do not be addicted into spending unnecessary time online. Decide your priorities between amusement and work. Both are necessary so manage time between the two.

**20. What are the physical factors that enhance our self-esteem?**

Focus on clean appearance, carrying ourselves well, etiquette and manner in dealing with people, confident smile and positive outlook. Knowing our strengths and working on our weaknesses is the key to better personality. Personal hygiene, gentle outlook, positive smile, confident stride and elegant dress code.

## **Unit 3: Basic ICT Skills**

### **SESSION 1: Information and Communication Skills**

#### **Exercise**

#### **1. How do we use information in various ways?**

Information is dealt with by us in following ways:

1. Accessing the information: Various means like computers, communication networks, smart phones help us access information through world wide web.
2. Creation of information: Computers, digital cameras, digital recorders, smart phones, scanners etc. help us create information in various forms like text, audio-video and image.
3. Sharing and distributing information: The internet, communication networks and tools like video conferencing, video chat platforms, smart phones and computers are the tools to disseminate information.
4. Storing and managing information: Databases, computers, storage devices like disks, pen drives, online drives are the means to store and manage information.

#### **2. How are computers useful in our daily life?**

Computers help us in almost all aspects of life be it education, entertainment, travel, our profession, using various services, communication, using social media, health care, doing our business, doing financial transactions etc.

#### **3. How computers help in running various businesses and industries?**

All kinds of business operations are carried out very easily and accurately by computers. Database of all the business details are maintained by computers. Small shops, supermarkets, big companies, restaurants, small offices use computers for efficient service. People access the services and buy products from businesses online. New technologies like big data and cloud computing provide enormous capabilities to the computers for bright future of industries.

#### **4. Why ICT skills are necessary for us in today's world?**

World around us is impossible to believe without the presence of computers. To survive in our trade and profession, we must have necessary ICT skills. Information and communication technology skills make our lives easier by easing our tasks up to greater extent. Availing a domestic service, booking travel tickets, hotel room and flights, ordering food, finding a location using GPS, interacting with people, instant communication are the part of our daily life. It also helps us remain competitive in our career.

### **SESSION 2: Computer System**

#### **Exercise**

#### **1. What is the role of input and output devices in a computer system?**

Input devices are used to feed input to the computer in different forms like clicking on command with the mouse, typing data through keyboard, scanning image using scanner, feeding video through a web camera and recording audio with microphone.

Output devices generate result of processing in various forms like text, image and video on monitor, hard copy print by printer, maps by plotter, and audio through speaker.

## **2. List differences between primary and secondary memory.**

Primary memory is usually not permanent. It loses data once power is switched off while secondary memory is permanent storage. Storage capacity of primary memory is very less as compared to permanent memory which can store data in bulk form. Primary memory is less expensive than permanent memory.

## **3. How is RAM different from ROM?**

RAM is main working memory of the computer. It stores the working data of the user as long as computer is powered on while ROM contains permanent instructions. RAM is Read/Write memory as data can be read and written on it while ROM is Read Only memory. Storage capacity of RAM is higher than that of ROM. RAM is upgradable.

## **4. What do you mean by peripheral devices?**

In addition to standard devices that form the actual computer system for standard input, output and processing operations there are additional devices which extend the functionality of a computer system such as printing out the content (printer), transmitting messages over network (modem), scanning images (scanner), recording voice and video (microphone and web camera).

## **5. Describe any 5 peripheral devices.**

1. **Printer:** It prints out the hard copy of the documents and images over variety of medium like paper, plastic sheets etc. Ranging from a simple deskjet printer to industry line printer used to print banners and posters, printers come in a wide variety to cater to various printing needs of various industries.
2. **Scanners:** This device is used to scan documents and store them in the computer for later use. A flatbed scanner can scan whole sheets of documents while handheld scanners are useful for quick scanning of a part of a document like a few lines or an image.
3. **Speakers:** Speakers are used to generate sound. They convert analog electric signals into air vibrations. Speakers are used to listen to music and sounds on the computer.

## **6. Describe the functioning of processing unit.**

A CPU consists of Arithmetic and Logic Unit (ALU) and Control Unit (CU).

1. **Arithmetic Logic Unit (ALU):** The ALU performs all arithmetic operations and logic operations. Logic operations test various logical conditions encountered during processing and different actions to be taken.
2. **Control Unit (CU):** It coordinates the components of a computer system. The control unit manages the execution of program instructions by fetching instructions from memory, parsing those instructions as necessary and then scheduling the appropriate hardware components to act on those instructions.

# **SESSION 3: Basic Computer Operations**

## **Exercise**

### **1. List the steps to switch on and shutdown a computer system.**

Switching a Computer System On

1. Switch on the UPS by a long press on its power button.
2. Press the power button on the CPU cabinet or system unit.

Shutting down the Computer

1. Click on Start button.
2. In the Start menu, click on Shutdown.

3. Switch off the monitor and then UPS.

## **2. What is the use of operating system.**

Operating system controls entire functionality of the computer system. It allows the user to interface with the computer hardware and make use of other software applications on the computer. Common functions are managing hardware devices, managing software and scheduling programs, files and storage management and system security.

## **3. How CUI is different from GUI?**

CUI is difficult to learn and operate since commands need to be type in and remembered correctly. In GUI, commands need not to be remembered, we use graphical interface to click on work. It is less interactive than GUI which is very intuitive.

## **4. What is the use of a file and folder?**

A file is a collection of related information. In other words, a file is a collection of data stored on a storage device. There are different types of files depending on the types of information they contain, like document, image file, music file, movie file, etc.

Folder contains files and other folders. Folders help us organise our data.

## **5. List the main components of a GUI desktop.**

Desktop, icons, Start menu, Taskbar, Program Windows, Dialog boxes and Toolbars etc.

# **SESSION 4: Internet and Its Applications**

## **Exercise**

### **1. What do you mean by the terms Homepage and Web page?**

A web page generally consists of text, images, audios, videos, links, animations, etc. The homepage is the first web page of a website. It provides introductory information and the links to the other pages of the website.

### **2. What is the role of browser in accessing internet?**

A web browser is an application software that is used to access the information (websites) on the web. Mozilla Firefox, Internet Explorer, Google Chrome, Safari, Opera are some commonly used browsers.

### **3. What is electronic mail? What are its advantages over traditional mail?**

The term e-mail refers to Electronic Mail. E-mail is a communication system that sends and receives messages through the internet by using specific e-mail addresses or e-mail IDs.

Advantages of e-mail

E-mail offers many advantages over traditional mailing system listed below:

1. Sending and receiving e-mail is very fast. It is received and delivered within seconds across the world.
2. E-mail is an affordable means of communication as compared to other systems.
3. Sending and receiving e-mail is very easy and convenient. Any type of files can be sent as an attachment through e-mail.

### **4. Write the steps to compose and send a simple mail without any attachment.**

Compose Mail

The steps to compose or create a new mail and send are:

1. Click on Compose button located on the left side pane. A Compose mail frame appears.



2. Type the e-mail address in the To box.
3. Type the subject name in the Subject box to send it with message.
4. Type your message in the message box.
5. Click on Send button.

### **5. What is the difference between replying a mail and forwarding a mail?**

When we reply a mail, the message goes back to the original sender of the email. Forwarding means sending the mail received from someone to other recipients.

### **Exercise**

#### **1. What is the difference between a blog and a standard web site?**

Blog, earlier known as Weblog, is an online platform which allows a person to post his/ her views on a particular topic or issue in the form of an online article for other people to visit and go through. Readers can post their comments on the article and this way threads of interaction and dialogues begin. Blog is maintained by blogger or blog writer. Blogs may be the part of a web site. Website is a huge collection of web pages linked together and identified by a web url. They are maintained by team of professionals and showcase products and services of an organisation.

#### **2. How a Facebook post different from a Tweet?**

Facebook post has no word limit. Tweet is 280 characters max. Posts can be shared. Tweets are forwarded as retweets.

#### **3. Describe the features of Twitter and Whatsapp.**

Twitter is social media website where users can post short messages including videos, links and text called Tweets. It needs user account name called Twitter handle. Username is preceded by @ sign. People can be followed on Twitter Twitter timeline displays all the Tweets which are updating amongst your connections. This is called Twitter feed.

WhatsApp is a messaging application that you can download to your smartphone and use to easily send messages to other people's mobile phones freely. It also allows video calls freely by using your phone's data connection. WhatsApp allows creating groups of your contacts. WhatsApp allows video calling too for all Android versions 4.1 and above.

#### **4. Go to a blogging website and create a simple blog telling about yourself.**

Practical assignment.

#### **5. List salient features of FaceBook and Youtube.**

Facebook

Timeline or wall, Page, Events, Photo Albums, News Feeds, Privacy Settings, Profile picture and Cover Picture etc.

Youtube

It is an online platform dedicated to video sharing. People can shoot videos and upload them on Youtube. It lists the most trending or popular videos. You can search videos or click on the video thumbnails to watch them. Youtube Channel, video playlist, restricted viewing by applying parental control and safety mode.

#### **6. What do you mean by a Youtube channel?**

Youtube Channel: People who are regular users of Youtube and upload videos on it are recommended to create a channel. Channel is simple a series or collection of related vidoes. The advantage of having a channel for creator is that popularity of multiple videos can analysed as one

channel. It is easier to manage a channel as compared to individual videos. For users, it is easier to subscribe the channel so that they get reminder about any new video updated by the channel owner.

### **7. What is Digital India campaign? List its 4 main initiatives.**

To ensure that government services and government schemes' information reaches to masses online easily, government of India (GoI) launched Digital India campaign in July 2015.

Connecting rural areas over high speed internet connection to bring the remote areas of the country into mainstream and improve digital literacy is the ambitious objective of the campaign.

Its 4 main initiatives are:

1. Access to mygov.in portal that lists details of all the government services and schemes.
2. Multi channel, multi-lingual, multi-service mobile app Unified Mobile Application for New Age Governance (UMANG) to access all government services over handheld devices.
3. Adhaar number has enable to access digital signature service eSign.
4. People can keep digital copies of their important documents over DigiLocker.

### **8. Go to [www.mygov.in](http://www.mygov.in) and find out various schemes launched by government.**

Practical assignment

### **9. How Whatsapp is different from Twitter? Describe briefly.**

Twitter is social media website where users can post short messages including videos, links and text called Tweets. It needs user account name called Twitter handle. Username is preceded by @ sign.

People can be followed on Twitter Twitter timeline displays all the Tweets which are updating amongst your connections. This is called Twitter feed.

WhatsApp is a messaging application that you can download to your smartphone and use to easily send messages to other people's mobile phones freely. It also allows video calls freely by using your phone's data connection. WhatsApp allows creating groups of your contacts. WhatsApp allows video calling too for all Android versions 4.1 and above.

## **Assessment**

### **1. In what ways do we deal with information. Explain very briefly.**

Information is dealt with by us in following ways:

1. Accessing the information: Various means like computers, communication networks, smart phones help us access information through world wide web.
2. Creation of information: Computers, digital cameras, digital recorders, smart phones, scanners etc. help us create information in various forms like text, audio-video and image.
3. Sharing and distributing information: The internet, communication networks and tools like video conferencing, video chat platforms, smart phones and computers are the tools to disseminate information.
4. Storing and managing information: Databases, computers, storage devices like disks, pen drives, online drives are the means to store and manage information.

### **2. Explain any 2 roles of ICT in our personal daily life.**

Entertainment

Presentation of content today has gained completely a different level. Entertainment, news and field of journalism are greatly supported by computers. Sports, online games, movies, songs, web series, video interaction with others have taken the entertainment to a next level.

Social Media

Sharing ideas, information, your personal views, achievements, setbacks or any news with almost anyone and everyone across the globe in moments over internet is due to the World Wide Web running on networks of computers. Integrated chat services, photo sharing services, video uploads

and video interactions are a routine today. Facebook, Whatsapp, Snapchat, Skype and YouTube have entirely changed the way we connect with people. Writing, photography, filmmaking, singing, video editing, video consulting, online coaching, relationship advice are new opportunities today.

**3. In which 2 industrial or business areas ICT is playing an important role and how?**

**Health Care**

Online diagnostic services, creatively designed medical equipment, consultancy services, personal doctor on-call, personal online physical trainer etc. are the examples of ICT intervention in health care.

**Banking Industry**

Entire financial industry all over the world relies and runs over computers and sophisticated communication infrastructure. Computers are used by banks to maintain the financial database, customers and day to day transactional details. Instant online transactions, secured transfer of funds, encrypted communication of data, verifying authenticity, efficient customer support, reaching out with financial schemes to mass – this all has been greatly revolutionised using computers.

**4. Why is keyboard called standard input device?**

Most of the input is given in the form of commands and text to the computer. Since the advent of modern computers, keyboard has been the device used to give input to the computer hence it is called the standard input device which completes the computer system.

**5. What is swift triple mouse click?**

Swift triple mouse click selects the whole paragraph.

**6. How do ALU and CU aid in data processing by computer?**

The arithmetic-logic unit (ALU) performs all arithmetic operations and logic operations. Logic operations test various logical conditions encountered during processing.

Control Unit (CU) is the circuitry that issues commands to other hardware components to execute programs. It manages the execution of program instructions by fetching instructions from memory, parsing those instructions as necessary and then scheduling the appropriate hardware components to act on those instructions.

**7. List any 2 main functions of CPU.**

**Functions of CPU**

1. The CPU accesses and stores the relevant data and instructions during processing.
2. The CPU controls the sequence of operations.

**8. Why ROM and RAM called primary memory?**

RAM is used to store primary working data of the user and ROM stores instructions required to start up and boot the computer. Without these two computer cannot start up and function hence they are called primary memory.

**9. How is ROM different from RAM?**

RAM is main working memory of the computer. It stores the working data of the user as long as computer is powered on while ROM contains permanent instructions. RAM is Read/Write memory as data can be read and written on it while ROM is Read Only memory. Storage capacity of RAM is higher than that of ROM. RAM is upgradable.

**10. Why printer is called a peripheral device while not the keyboard?**

Computer can still work in absence of a printer. If a printout is required, printer can be attached and installed with the computer anytime. Printer only extends the functionality of the computer but it is not very necessary part of it.

**11. Explain any 2 storage devices.**

**Digital Card Reader-Writer**

Digital card readers are found in devices like laptops, digital cameras and smart phones. These devices have slots to read from and write on the memory cards. These cards are available in various storage capacities ranging from 16 GB to 1 TB.

**External Hard Drives**

In addition to computer's main storage device – Hard disk there are external hard drives available. They can be easily connected with the computer through USB port. External drive is the best suited device for keeping backup of the computer data since it can store data in the range of 500 MB to 2 TB or even more in near future.

**12. Explain the optical disks briefly.**

Optical discs can store information or data like video, audio, text, images, games, software etc. Various types of optical discs are available which can store up to 8 GB data.

CD-ROM stores data for distribution for example, music CDs. It is read-only storage media. It stores data up to 700 MB.

There are 3 types of CDs:-

CD-R (Compact Disc Recordable): Data can be written once but read many times from it.

CD-RW (Compact Disc Re-Writable): It allows us to erase previous data and write new data on them.

**13. What is the basic difference between a printer and a plotter?**

Printer prints out the hard copy of the documents and images over variety of medium like paper, plastic sheets etc. while plotters draws or plots building maps or product designs. It is used by architects and product designers. A Plotter prints high-quality graphics or drawings.

**14. What is operating system? List any 2 functions of operating system.**

Operating system controls entire functionality of the computer system. Operating system allows the user to interface with the computer hardware and make use of other software applications on the computer.

**Two Functions of Operating System**

Managing hardware devices: Controls functioning and interaction among devices.

Managing software and scheduling programs: Keeps track of installed software and allocates/deallocates memory to the required programs.

**15. Describe any 4 types of operating system.**

Single User OS: Such operating systems allow one user at a time on a system. Examples: DOS and Windows 95

Multi-User OS: Such operating systems support more than one user at a time on the same computer. Examples: Windows 7, Windows 10, Linux, Unix.

**16. How is application software different from an operating system?**

Application software are used to perform various tasks in a variety of fields while operating system controls the functioning of the computer system.

**17. Why operating system needs to be loaded first in computer's memory when it is switched on?**

Operating system controls entire functionality of computer system, it manages other software applications on the computer, devices connected to it and memory. It also provides user an interface to work with computer. Until the operating system is loaded in computer's memory, user cannot work on the computer therefore operating system should load very first.

**18. List any 4 parts of a GUI.**

Desktop, Start Menu, Task bar, Icons, windows etc.

**19. What do you see on a desktop generally?**

Every GUI component appears over the desktop. On the desktop, icons of shortcuts of various programs, Recycle Bin, Computer and Network are seen. In the background either colour is set or a wallpaper is there. At the bottom, Taskbar is situated.

**20. What is the role of folders?**

Folders store files and other folders called sub-folders. They help us organise our data in various folders.

**21. Describe the use of taskbar in Windows.**

Taskbar is usually found on the bottom of the desktop and displays Start button and system tray. Various parts of the taskbar are:

1. Start Button: The Start button is found on the left side of the taskbar. When we click on the Start button, a menu appears which is known as the Start menu. We can find and open all the programs from the Start menu.
2. Quick Launch toolbar: The Quick Launch toolbar provides an easy access (in single- click) to our favourite programs. These programs can be opened in one click.
3. Middle Section: The Middle Section shows us the programs and files we have opened and allows us to quickly switch between them.
4. System Tray: The System Tray is used to show the date and time and various other notifications.

**22. List the advantages of email over traditional mail.**

E-mail offers many advantages over traditional mailing system listed below:

1. Sending and receiving e-mail is very fast. It is received and delivered within seconds across the world.
2. E-mail is an affordable means of communication as compared to other systems.
3. Sending and receiving e-mail is very easy and convenient. Any type of files can be sent as an attachment through e-mail.

**23. What is the structure of an email address? Give an example.**

E-mail addresses or E-mail ID identifies the receiver. It has username followed by @ sign and then name of the email service provider website. info@eduitspl.com is an example of an e-mail address.

**24. How will you forward an email along with an attachment?**

Steps to forward the mail are:

1. Click on mail, which you want to forward.
2. Now, click on arrow next to the Reply option. A menu appears.
3. Select Forward option. A new frame appears below the mail details, to forward the message.
4. Type the email address of the recipients in *To* text box and type the text in the message.

5. Click on the *Attachment* The File Upload dialog box appears after clicking on Attachment option to select the attachments.
6. Click on Send button.

### **25. What is a blog?**

Blog is an online platform which allows a person to post his/ her views on a particular topic or issue in the form of an online article for other people to visit and go through. Readers can post their comments on the article and this way threads of interaction and dialogues begin. Blog is an excellent way to showcase your writing and reporting talents or just to share your thoughts and views in an structured way. A person who writes and maintains a blog is called blogger.

Any person who has basic computer knowledge and has drafting skills can create a blog. Some popular blog services are Wordpress, Blogadda, Blogger, Tumblr etc.

### **26. How is facebook a popular social media platform?**

Facebook is one of the most popular social website that allows people interact with each other for free. Sending and accepting friend requests, sharing videos, pictures and posts, creating pages, events and photo albums and online chat are some exciting features which make Facebook popular.

### **27. In what manner can you interact with people on Facebook?**

We can post comments on other people's posts. We can share videos, pictures, pages and events with others. We can respond with likes and other responses to other's posts. Facebook chat is another way to interact with others.

### **28. What is tweeting and re-tweeting? What do you mean by #savetreescampaign**

A post on Twitter is called tweet. Someone reposting anybody's tweet is called retweet.

### **29. Explain Youtube channel and its advantage.**

Youtube channel allows people to create a collection of uploaded videos. Channel is a series or collection of related videos. The advantage of having a channel for creator is that popularity of multiple videos can analysed as one channel. It is easier to manage a channel as compared to individual videos. For users, it is easier to subscribe the channel so that they get reminder about any new video updated by the channel owner.

Users can create a playlist of their favourite channels depending on their interests like education, sports, cookery etc.

### **30. How is Whatsapp different from Twitter?**

Twitter is social media website where users can post short messages including videos, links and text called Tweets. It needs user account name called Twitter handle. Username is preceded by @ sign. People can be followed on Twitter Twitter timeline displays all the Tweets which are updating amongst your connections. This is called Twitter feed.

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### **31. What are various Digital India initiatives taken by Indian government?**

1. Multi channel, multi-lingual, multi-service mobile app Unified Mobile Application for New Age Governance (UMANG) to access all government services over handheld devices.
2. Adhaar number has enable to access digital signature service eSign.
3. People can keep digital copies of their important documents over DigiLocker.

4. eHospital application to for enquiring about blood donation services, appointments for checkup diagnostics, registration and payment for fees of the service availed.
5. Swachh Bharat Mission app to promote cleanliness as a nationwide mission.
6. eSampark application to promote communication in regional language.
7. Pradhanmantri Digital Saksharta Abhiyan to make rural households digitally literate.

**32. How Digital India campaign will help in rural digital literacy and how will it help in serving masses in a better way? Give your general idea citing some examples.**

To be answered by student after discussion with the teacher.

## **Unit 4: Entrepreneurial Skills**

### **SESSION 1: Types of Business and Business Activities**

#### **Exercise**

**1. What is the difference between corporation and cooperative?**

##### **Corporation**

A corporation is a business organization that has a separate legal personality from its owners. Ownership in a stock corporation is represented by shares of stock. The owners enjoy limited liability but have limited involvement in the company's operations. The board of directors, an elected group from the stockholders, controls the activities of the corporation.

A cooperative is a business organization owned by a group of individuals and is operated for their mutual benefit. The persons making up the group are called members. Some examples of cooperatives are water and electricity cooperatives and housing cooperatives.

**2. List any 4 essential business activities.**

Human resources, customer service, accounting and sales.

**3. Describe any 3 business activities necessary to run the business briefly.**

##### **Accounting**

Accounting is to tracking the money taken in and the money spent by the business. Retail businesses with a high number of transactions use daily accounting. Keeping up to date on expenditures and income allows you to see where you earn and where your business loses money.

##### **Budgets and Finance**

Implementing a budget helps us control costs. For smaller businesses, budgets may consist of little more than a monthly allotment to cover overhead, insurance and payroll. Larger businesses need to

set out big budget on an annual basis. Budget includes expected revenue and costs that is updated regularly.

#### Sales

Sales are the heart of all businesses. Depending on the industry sales is done by dedicated sales teams that develops prospects into clients, performs demonstrations and maintains contact with the existing client base.

## **SESSION 2: Entrepreneurship: Meaning and Characteristics**

### **Exercise**

#### **1. How entrepreneurs positively contribute to society?**

Entrepreneurs create opportunities for jobs. Entrepreneurs always look for the ideas to transform the world around them. Entrepreneurs often do more for the greater good than the average person. They make honest money with great struggle and pay for taxes and public services thereby contributing and returning to the economy. Many of them take green initiatives for environment and contribute to the charities for social causes.

#### **2. How is an entrepreneur different from businessman?**

Entrepreneurs build up the business process to address a problem with some innovative and useful solution. They constantly improve using the feedback. They usually use public wealth in doing business and thus directly contribute to the economy. They maintain smaller efficient teams. They usually manage a smaller business entity that can be managed with continuous innovations. They take manageable risks.

#### **3. List the steps of entrepreneurship development program.**

Various steps involved in Entrepreneurship development process are:

1. Setting up concrete objectives of the development program
2. Identifying and nominating valid and genuine candidates
3. Program designs focus on local talents and markets
4. Choosing the right location
5. Program impact analysis for future programs

#### **4. List main characteristics of entrepreneurship.**

Economic and dynamic activity

Continuous innovations

Opportunities and potential for growth and profits

Taking and tolerating risks

#### **5. Write a short note explaining rewards of entrepreneurship.**

The rewards of entrepreneurship are that the approach of risk-reward opens new doors of growth in the form of opportunities. Despite responsibilities there is greater independence in working. More democratic teams are created. Other rewards are flexible schedules and processes, creativity and productivity with recognition and fame.



## **Assessment**

### **1. List the various forms of business ownership.**

Sole Proprietorship, Partnership, Corporation, Limited Liability Company, Cooperative.

### **2. How sole proprietorship is different from Corporation?**

A sole proprietorship business is owned by only one person. A corporation is a business organization that has a separate legal personality from its owners.

SP is suitable for small businesses and least costly among all forms of ownership. The liabilities of entire business are faced by the owner. In corporation, ownership in a stock corporation is represented by shares of stock. The owners enjoy limited liability but have limited involvement in the company's operations.

### **3. What do you mean by LLC?**

Limited liability company has characteristics of both a corporation and a partnership. An LLC is not considered a corporation but the owners enjoy limited liability like in a corporation. An LLC can decide how it will be taxed as a sole proprietorship, a partnership, or a corporation.

### **4. How cooperative is different from corporation?**

A cooperative is a business organization owned by a group of individuals and is operated for their mutual benefit. The persons making up the group are called members. Some examples of cooperatives are water and electricity cooperatives and housing cooperatives.

A corporation is a business organization that has a separate legal personality from its owners. Ownership in a stock corporation is represented by shares of stock. The owners enjoy limited liability but have limited involvement in the company's operations. The board of directors, an elected group from the stockholders, controls the activities of the corporation.

### **5. How is manufacturing different from Merchandising?**

A manufacturing business buys products and uses them to make new products while Merchandising business buys products at wholesale price and sells the same at retail price.

A manufacturing business combines raw materials, labor, and factory overhead in its production process while a merchandising business sells a product without changing its form.

### **6. What do you mean by hybrid business type?**

Hybrid businesses are companies that may be classified in more than one type of business. A restaurant, for example, combines ingredients in making a fine meal (manufacturing), sells a cold bottle of wine (merchandising), and fills customer orders (service).

### **7. Describe any two business activities.**

Human Resources

Human resources are the employees of the company. They are managed under human resource department. Conducting interviews, hiring applicants and determining benefit packages, addressing interpersonal conflicts etc. are some of HR tasks..

Customer Service

Customer service helps to secure new clients and promotes referrals from your existing clients. Customer-service departments provide existing customers with a direct contact that offers solutions to issues with bills, faulty products or shipping errors.

### **8. What do you mean by human resource?**

All the employees that work in an organisation as various teams are called human resource. It is generally the largest resource of all in the company. HR is managed by a dedicated HR department in larger corporations.

**9. How customer service is important for business?**

Customer service helps to secure new clients and promotes referrals from your existing clients. Customer-service departments, unlike front-line staff, provide existing customers with a direct contact that offers solutions to issues with bills, faulty products or shipping errors.

**10. What do you mean by sales and marketing?**

Sales is the heart of all businesses. It is done by a dedicated sales team that develops prospects into clients, performs demonstrations and maintains contact with existing client base.

Marketing promotes the business. Very few businesses can survive without marketing. In large businesses, a good marketing plan uses mass marketing via television commercials or specifically targeting clients via trade magazines.

**11. What do you mean by a service and a product. Explain with an example.**

Service is an intangible form of product which is given to the clients in various ways like consultancy, repairs, hospitality, schools, banks etc.

Product is a tangible entity which is manufactured and sold to the customer. It has some life span.

**12. Why entrepreneurship development program required?**

Entrepreneurship development programs are required to promote and support entrepreneurship. This is achieved by deploying various training programs focusing on developing entrepreneurial skills. The process of entrepreneurship development aids the entrepreneurs to develop their skills by applying what they learn in the training for improved business activities.

**13. How do entrepreneurs aid in promoting nation's economy?**

Entire entrepreneurship approach is focused on economic activities since all the activities are centrally focused on creation of wealth and value for organisation. All operations are planned in such a way that ensures optimum utilisation of all available resources. Since entire system works on the foundation of uncertainty and adapting to constant challenges, entrepreneurship is regarded as a dynamic force.

**14. List the features of an entrepreneurship development program.**

1. Clear objectives to cover for entrepreneurs' training.
2. Identifying valid and eligible prospective candidates who need training.
3. Focus on talents and markets.
4. Choosing suitable locations for training programs.
5. Meeting the skill requirements of the candidates.
6. Program impact analysis for future improvements.

**15. Describe any 4 characteristics of entrepreneurship.**

1. Entire entrepreneurship approach is focused on economic activities since all the activities are centrally focused on creation of wealth and value for organisation. Since entire system works on the foundation of uncertainty and adapting to constant challenges, entrepreneurship is regarded as a dynamic force.
2. Entrepreneurship has the process of looking for new, viable ideas. and improvements in the existing modes of business operations.

3. Due to constant innovations and improvements in the process entrepreneurs have more potential for further growth and return on investments.
4. Being ready to take risks and looking at them as potential opportunities is the essence of entrepreneurship.

**16. How entrepreneurs benefit from taking risks in business?**

Being ready to take risks and looking at them as potential opportunities is the essence of entrepreneurship. Willingness to tolerate the problems posed by risks, finding the ways to overcome them with new ideas and implement the learning in the growth of the business is the basic strategy of every entrepreneurial entity.

**17. Discuss the roles of entrepreneurship in brief.**

1. Entrepreneurs invest their own resources and arrange for capital and investments. The source of funding may be investors, lenders and the public. This mobilizes public wealth and benefits people as well as all stakeholders.
2. Entrepreneurs are job creators. This job creation by new businesses is very rewarding for nation's economy as it addresses problem of unemployment up to some extent.
3. Entrepreneurs set up new businesses and industrial units in less developed and backward areas. The growth of industries and business in these areas leads to infrastructure improvements like better roads and rail links, airports, stable electricity and water supply, schools, hospitals, shopping malls and other public and private services.
4. Contribution in economical growth. India's MSME sector, accounts for over 35% of the country's GDP.
5. Entrepreneurs play a key role in increasing the standard of living in a community. They create jobs and also develop and adopt innovations leading to improved quality of life of their employees, customers, and other stakeholders in the community.
6. Entrepreneurs aid in community development like education and training, healthcare, and other public services. And help build the pool of educated and skilled workers.

**18. List any 6 rewards of entrepreneurship.**

1. Entrepreneurs are the captain of their business with full independence.
2. Flexible schedules and processes.
3. Do what you believe.
4. Lead enthusiastic teams
5. Stay creative and productive.
6. Recognition and fame.

**19. How do entrepreneurs contribute to industrial and social development?**

Entrepreneurs give to society. Entrepreneurs often do more for the greater good than the average person. They make honest money with great struggle and pay for taxes and public services thereby contributing and returning to the economy. Many of them take green initiatives for environment and contribute to the charities for social causes.

Entrepreneurship, in its core, has the process of looking for new, viable ideas. Working environment of an entrepreneur entity encourages regular reviews and analyses of the processes and their outcomes. Such constant evaluations lead to the birth of innovative ideas and improvements in the existing modes of business operations.

**20. How can you say that entrepreneurs are innovative and independent?**

Entrepreneurship, in its core, has the process of looking for new, viable ideas. Working environment of an entrepreneur entity encourages regular reviews and analyses of the processes and their outcomes. Such constant evaluations lead to the birth of innovative ideas and improvements in the existing modes of business operations.

Despite responsibilities there is greater independence since entrepreneurship invites abilities to work independently yet in coordination with flexible decision making system.

## **Unit 5: Green Skills**

### **SESSION 1: Environment, Natural Resources and Conservation**

#### **Exercise**

##### **1. Define the terms environment and ecosystem.**

Our environment is everything that surrounds us- from the trees, mountains, roads, buildings, things and even people. It is a combination of both natural and human-made elements.

Community of living and non-living organisms living interdependently with each other is called ecosystem. like, Forest, Pond etc. An ecosystem is a dynamic entity with constant interactions occurring among the organisms and with the surroundings.

##### **2. How does pollution affect environment?**

The contamination of the surrounding environment by the addition of foreign/unwanted substances is known as pollution.

Air Pollution is posing a serious threat to both flora and fauna. Air pollution is believed to end lives of over 20 lakh people every year. Incurable respiratory diseases among animals, aorist rainfall, acid rain, global warming, depletion of ozone layer, the rise in temperature, withering of plants, drought-like conditions, the grimy appearance of buildings etc. are only because of air pollution.

Because of pollution and misuse of resources water table has already depleted from its normal level and the water which is available is again in impure from which can cause serious diseases like cholera, diarrhea, typhoid, retarded growth and stomach/peptic ulcers etc.

### **3. What are the ill effects of deforestation and global warming?**

Deforestation is when humans remove or clear large areas of forest lands and related ecosystems for non-forest use. In these cases, trees are never re-planted. Since the industrial age, about half of world's original forests have been destroyed and millions of animals and living things have been endangered.

Removal of green cover and excessive industrialisation increases global warming due to ozone layer depletion and UV rays entering earth's atmosphere. Increase in Carbon dioxide and chlorofluoro carbons increase earth's temperature leading to global warming.

### **4. How can we prevent ill effect of man's actions on environment?**

Human greed, heavy industrialisation, rampant over exploitation of natural resources has brought the humans and environment to the brink of destruction. The Green Economy is an alternative vision for growth and development and sustainable development. Green Economy can promote safer economic, environmental and social well-being. Green economy addresses low carbon emissions, efficient use of resources, and social benefits.

## **SESSION 2: Green Economy**

### **Exercise**

#### **1. What do you mean by green economy? Explain briefly.**

The Green Economy is an alternative vision for growth and development and sustainable development. Green Economy can promote safer economic, environmental and social well-being. Green economy addresses low carbon emissions, efficient use of resources, and social benefits. Green economy improves social well-being, equity and reduces environmental risks. It is a viable alternative to today's economic structures, which encourage waste and threats to the environment. The concept of the green economy is emerging as a priority for government for sustainable and environment-friendly growth.

#### **2. Describe the importance of green economy in the modern world in brief.**

Green economy addresses low carbon emissions, efficient use of resources, and social benefits. Better and steady growth in income, proper employment opportunities and related activities need to be more public oriented and prevent the damage to biodiversity and ecosystem.

Improved energy security and environmental and public health have greater scope to implement green initiatives. This is a priority for government for sustainable and environment friendly economy.

#### **3. List the steps we can deploy to achieve green economy.**

Will power and commitment of the government.

Laws and legal framework.

Green policies

Support renewable technology

Innovations in energy sector

#### **4. How green policies and political commitments achieve green economy?**

Policy makers should put proper mechanisms in place to prevent natural resource abuse. Secondly, government bodies need to promote funding for entrepreneurs that provide innovative solutions to energy issues. Government need to promote green investment and research.

Political bodies of government should commit to the green growth path for economy. This could include better research and development, resorting to innovative renewable technologies and renewable energies.

## Assessment

### 1. What do you mean by environment?

Environment is a combination of both natural and human-made elements. These elements are divided into two types: Biotic and Abiotic. Biotic elements are all the living organisms. Abiotic elements include all the non-living things. Land, air, water, plants and animals all comprise the natural environment.

### 2. Which components is our environment made of?

Our environment is mainly made of the lithosphere - the hard top layer of the earth, the Hydrosphere - various sources of water and different types of water bodies, the atmosphere - the thin layer of air that surrounds the earth and the biosphere that includes all life.

### 3. What is Ecosystem?

Community of living and non-living organisms living interdependently with each other is called ecosystem. like, Forest, Pond etc. An ecosystem is a dynamic entity with constant interactions occurring among the organisms and with the surroundings.

### 4. Give an example of an ecosystem and briefly explain it.

In a river, members of ecosystem are fish, aquatic plants, insects, insect eating birds, amphibians like frog, microorganisms of soil and water etc. Fish and water animals release carbon dioxide used by aquatic plants and plants release oxygen for animals to absorb.

### 5. List any 5 disastrous effects on environment caused by human activities.

1. Rapid endangerment of rare animals and plants species due to extensive poaching.
2. Greater demand for precious animal parts and ornamental goods made from them.
3. Erosion of soil and deterioration of soil fertility.
4. Water pollution due to fertilisers, pesticides, domestic and industrial waste.
5. Air pollution due to toxic industrial emission and fuel combustion.

### 6. What do you mean by deforestation? What are its causes and effects?

Deforestation is when humans remove or clear large areas of forest lands and related ecosystems for non-forest use. These include clearing for farming purposes, ranching and urban use. In these cases, trees are never re-planted. About half of world's original forests have been destroyed so far and millions of animals and living things have been endangered.

#### Causes:

- Trees are cut down (deforestation) for many reasons including
- To be used, sold or exported as timber, wood or fuel (charcoal). This is called logging.
- To be used for farming purposes (grazing fields for livestock, or large-scale farming activities)
- To make room for human settlement and urbanization (these include making space for shelter, industries, and roads)
- To make room for mining.

#### Effects:

- Global warming.
- Irregular rains.

- Floods
- Soil erosion.
- Draught.

### **7. What are the effects of air pollution and possible solutions?**

Air Pollution is a serious threat to both flora and fauna. Respiratory diseases among animals, acid rain, global warming, depletion of ozone layer, the rise in temperature, drought-like conditions, etc. are because of air pollution.

If the rate at which pollution is increasing right now continues then soon quality air for breathing will cease to exist and the whole ecosystem will be disturbed.

**Solution:** The industries should be set up far from residential areas and proper filters should be used to check out toxic emissions from the industries. Deforestation should be stopped and afforestation should be promoted. Power Plants emissions should be controlled. Migrating towards cleaner sources of energy like solar and wind energy.

### **8. What are the effects of water pollution and possible solutions?**

If the misuse of water is not stopped then pure drinking water won't be available for consumption. Due to misuse of water, water table has already depleted from its normal level and the water which is available is impure from which can cause serious diseases like cholera, diarrhea, typhoid, retarded growth and stomach/peptic ulcers etc.

**Solution:** The domestic and sewage water should be recycled by correctly mixing it with soil which increases the fertility of the soil. The industrial toxic waste, on the other hand, should not be disposed of directly in the water bodies at all. Alternative disposable techniques should be developed or should be disposed of after proper treatment. The use of pesticides and insecticides should be minimized.

### **9. What is global warming?**

Global warming occurs when carbon dioxide (CO<sub>2</sub>) and other air pollutants and greenhouse gases collect in the atmosphere and absorb sunlight and solar radiation that have bounced off the earth's surface. Ozone layer depletion is done by Chloro-fluoro-carbons. Extreme heat waves, melting of glaciers, and severe droughts cause water shortages and increase the risk of wildfires.

Rising sea levels will cause flooding in coastal areas. Forests, farms, and cities face heat waves, heavy downpours and floods. All these damage and destroy agriculture and fisheries. Diseases like allergies, asthma and infections outbreaks are becoming more common.

### **10. How have human activities endangered animal species?**

Humans are largely responsible when animals become extinct, endangered or threatened. Humans destroy precious habitat--the natural environment of a living thing--when they fill swamps and marshes, dam rivers and cut down trees to build homes, roads and other developments. Oil spills, acid rain and water pollution have been devastating for many species of fish and birds. Humans have over hunted and over harvested species, leading to their endangerment, and often, extinction. Habitat loss due to forest fires, deforestation, pollution, over killing and poaching has led to the extinction of rare animal species.

### **11. Name a few endangered species.**

Some endangered species are: giant panda, tiger, whooping crane, blue whale, Asian elephant, sea otter, snow leopard and gorilla.

### **12. How is radioactive waste and Electronic waste dangerous for environment?**

Radioactive waste is nuclear fuel that is produced after being used inside of a nuclear reactor. This is very dangerous and remains this way for thousands of years. It must be handled in the right manner. Industries like mining, defense, medicine, scientific research, nuclear power generation which produce by-products that include radioactive waste.

Electronic wastes include discarded electronic devices like old cell phones, computers, batteries etc. They degenerate very slow and are hazardous.

### **13. What do you understand by the concept of green economy?**

Human greed, heavy industrialisation, over exploitation of natural resources has brought the humans and environment to the brink of destruction. Green Economy is an alternative vision for growth and development. Green Economy promotes safer economic, environmental and social well-being. Green economy addresses low carbon emissions, efficient use of resources, and social benefits. It improves social well-being, equity and reduces environmental risks.

### **14. Which problems does green economy address?**

Green Economy can promote safer economic, environmental and social well-being. An inclusive green economy improves social well-being, equity and reduces environmental risks. It is a viable alternative to today's dominant economic structures, which encourages waste, cause resource scarcities, and which are threats to the environment.

### **15. Explain briefly how we can achieve green economy?**

Certain general steps that can be taken to achieve green economy are:

Political commitment: Government bodies should commit to the green growth path for economy. This could include better research and development, resorting to innovative renewable technologies in industry.

Legal and regulatory framework: Policies for green regulatory systems to prevent climate change. Laws must be enforced with heavy hand to eliminate the damages to environment.

Green policies: Policy makers should introduce mechanisms to prevent natural resource abuse. Government needs to promote funding for entrepreneurs that provide innovative solutions to energy issues. Government need to promote and support green efforts in private industry.

Technology viability: Use public funds to support renewable technology.

Institutional setup: Institutional adjustments to adopt innovative solutions and attract new investments for clean energy, biogas, windmills etc.



**PART B: Vocational Skills**  
**Unit 1: Introduction to IT-ITeS Industry**  
**SESSION 1: Introduction to IT and ITeS**

**Exercise**

**1. What is Information Technology? How does it help in enabling various business services?**

Information Technology (IT) encompasses 4 basic operations:

1. Creating information
2. Managing information
3. Storing information
4. Exchanging information.

IT includes all types of technology used to manage information, such as computer hardware technology and various software applications used to create, store and transfer information.

IT is an integral part of almost all modern businesses. Modern businesses run on computers, networks, communication technology and information systems are essential parts of every business today. Every business, large, medium or small, needs to invest in technology to compete. IT brings a variety of benefits to a business, like automating most business operations, enhancing the customer relations, developing a business a relationship with potential customers. This helps in reducing costs, improving efficiency, maximising profit, minimising waste, providing better service to customers, supporting better relationships with key partners, and allowing customers to better guide the business.

**2. What is BPO? List any of its 5 application areas.**

Business Process Outsourcing (BPO) services allow executing business operations through an external service provider who is not the part of the business system. BPO also comes under IT services as IT plays a very useful role in optimising the business performance. The BPO industry is highly organised and hence various kinds of jobs are outsourced in India. India has proven its expertise in last many years by reducing costs with firm control on the quality of the service. Some of the BPO services are as follows:

1. Financial & Accounting Services
2. Taxation and Insurance Services
3. E-Publishing and web Promotion
4. Legal Services and content Writing
5. Multimedia & Design Services

**3. How is BPO different from BPM?**

Business Process Outsourcing (BPO) services allow executing business operations through an external service provider who is not the part of the business system.

BPM includes multinational companies, local ie Indian service providers and global inhouse centers.

## **SESSION 2: IT Applications**

### **Exercise**

#### **1. How has IT influenced our daily life and work place?**

In our daily life, we use air conditioners, refrigerators, washing machines, microwave ovens and many other appliances using software. We can store and manage all the information about our important tasks, appointments, schedules and list of contacts in a computer. Computer is, therefore, playing a vital role in our lives and we cannot imagine the world without computers.

In offices, computers and software applications help in accomplishing a wide variety of tasks more effectively. In the industries, where attention to detail, speed, and efficiency are important, such as assembly-line, automation is an essential need and has become common. Web services and Office productivity applications form the basis of modern business.

#### **2. How do computers help in managing a library?**

Nowadays, many libraries are computerised. Each book has a bar code associated with it. This makes it easier for the library to keep track of library members, books and the availability of a specific book. Library management software is used to issue and return the book. Each book in the library has a magnetic strip attached to it that is deactivated before the book can be borrowed.

#### **3. Write a note on how IT has impacted the education sector positively.**

The students, teachers and educational administrators and every stakeholder in the education sector has been benefitted by integration of IT in education.

ICT in the classroom: There are many ways in which the ICT is used for education in the classroom, such as

1. E-learning classrooms with digital learning content
2. Smart-board presentations
3. Videos on science experiments and places difficult to reach like marine life, physiology of the body, space etc.
4. Image and video processing (creation and editing)
5. Desktop publishing of magazines and other documents;
6. Educational games and activities
7. Computer based learning through educational disks
8. Information search and analysis on the Internet.

Education – anywhere anytime: Any student in India can access the NCERT books online through the website [www.epathshala.nic.in](http://www.epathshala.nic.in) or mobile app. Apart from this there are a variety of websites and mobile apps to access educational resources on any topic. You can also contact a teacher/trainer via Internet to use WBT (Web-based Training). In this way education has reached the far flung areas by reaching the unreached.

Teaching aids and media: ICT is used mostly as a teaching aid in schools to:

1. Use multimedia (pictures, animations, audio-visuals) to explain topics difficult to explain.
2. Make the lessons more engaging and interesting through interactive & animated presentations.
3. Organise lessons, lesson plans, worksheets etc. using the computer.
4. Collect and organise the information relevant to the subjects.

#### **4. Write a brief note on LMS.**

Learning Management Systems (LMS) are used by several institutions to train students and enterprises to train their man power. A trainees can register themselves on the official website to access LMS and can get many services from LMS. The student can be benefitted by using LMS, as it can be used to:

1. Follow lessons anytime, anywhere and by using any device.
2. Submit queries seeking clarity on any topic, getting replies, submit comments through forums.
3. Take part in the co-curricular activities via video.

4. Monitoring the progress and academic performance (usually by parents through parent login).

### **5. Discuss how IT has revolutionized healthcare sector.**

ICT has revolutionised the health sector great deal. Patient Management Sub-System is used to maintain and manage patients' records. Hospital Management Module takes care of various activities pertaining to hospital administration. The computerised machines are used for ECG, EEG, Ultrasound and CT Scan. The variety of measuring instruments and surgical equipment are used to monitor patients' conditions during complex surgery. Expert systems help in diagnosis. Health care manufacturing companies use computers to aid the production of diagnostic tools and instruments. Laboratory and dispensaries are equipped with advanced computerised machines. They are used in scanning and diagnosing different diseases.

### **6. What is E-Governance? How IT has realized the vision of E-Governance?**

The government makes use of advanced communication technology and large-scale computer applications in its daily operations thus encouraging G2C (Government to Customer) e-governance practices. Digital India and e-governance initiative of Government of India are best examples of this. Government and non-Governmental Organisations (NGOs). In addition to this, International Government Agencies use ICT applications to communicate and provide various services to the people and is called as e-governance. There are various official web portals of the Government of India for e-governance. There are various advantages of e-governance. The Income tax department, sales tax department, preparations of voters list, preparation of PAN card makes use of the computer system. Many government services are available online. Electricity bills can now be paid online. The government uses electronic voting for elections, by replacing the traditional voting slip and ballot box. People can enroll themselves in the electoral roll through the State Election Commission portal. Computers are common-place in modern society, and tend to make previously laborious manual tasks of data entry much simpler and quicker.

## **Assessment**

### **1. What is the basic difference between IT and ITeS? Which 4 operations does IT encompass?**

Information Technology (IT) facilitates faster transmission of information in various fields catering to our requirements. Based on IT is the Information Technology enabled Services (ITeS) sector which has not only changed our impression as technology people on the international front but has also contributed to our nation's economy significantly. In this session, we shall explore the fundamentals of Information Technology (IT) and IT enabled Services (ITeS).

Information Technology (IT) encompasses 4 basic operations:

1. Creating information
2. Managing information
3. Storing information
4. Exchanging information.

### **2. How is data different from information? Explain with an example.**

Computers take data and instructions as input, process the data as per the instructions given and produce the meaningful results as output. This output is information. Data refers to the facts or raw material, which are processed to get the information. For example, Number of items sold, unsold and returned in a shop is factual data of the stock in that shop. We can draw various conclusions out of this data-set. This conclusion is information.

### **3. Explain ITeS.**

Business services whose quality is improved by incorporating Information Technology in the business systems are called IT enabled Services (ITeS). ITeS is also called web-enabled services or remote services that cover the entire operations which exploit Information Technology for improving efficiency of an organisation. When business services are enabled, they provide a wide range of career options that include opportunities in all enterprises and companies. Such opportunities include call centres, payrolls, logistics management, revenue claims processing, medical billing, coding, medical transcription, legal databases, back office operations, content development, GIS (geographic information system), web services and HR services, etc. ITeS is defined as outsourcing of processes that can be enabled with information technology and covers diverse areas like finance, HR, administration, health care, telecommunication, manufacturing, etc.

### **4. What are BPO services? How are they different from BPM?**

Business Process Outsourcing (BPO) services allow executing business operations through an external service provider who is not the part of the business system. BPO also comes under IT services as IT plays a very useful role in optimising the business performance. The BPO industry is highly organised and hence various kinds of jobs are outsourced in India. India has proven its expertise in last many years by reducing costs with firm control on the quality of the service. BPO services are executed through an external service provider who is not the part of the business system while BPM includes multinational companies, local ie Indian service providers and global inhouse centers.

### **5. Discuss the advantages of BPO services.**

BPO Service Industry is doing exceptionally well in India because of the following advantages:

1. BPO service providers in India invest in hi-tech hardware and software to deliver the best of services. They follow quality checks to ensure error free and exceptional service.
2. Government of India is encouraging BPO Industry in India by providing necessary infrastructure and logistical support.
3. BPO Industry in India is highly developed and capable of delivering numerous types of BPO services in exceptional quality.

### **6. What is a BPM industry?**

The organisations within the IT-BPM industry includes Multinational Companies which have their headquarters outside India but operate in multiple locations worldwide, Indian Service Providers who have their headquarters in India while having offices at many international locations and Global In-house Centers who cater to the needs of their parent company only and do not serve external clients.

### **7. Discuss IT applications in certain major areas.**

#### **IT in education**

Computers and Information Technology are extensively used in education for teaching-learning and assessment. The software and hardware technology is used for creation and transmission of information in various forms including still pictures, audio, video and animation to the learners. The learning becomes easier and accessible through IT. A lot of teaching resources are available for teachers to teach in a better way. Online assessment helps to assess the students without any bias.

The students, teachers and educational administrators and every stakeholder in the education sector has been benefitted by integration of IT in education.

### **IT in communication**

Communication is used to convey messages and ideas, pictures, or speeches. A person who receives this must understand clearly and correctly. Modern communication makes use of computer system, handheld devices and communication network. We use computers for email, chatting, FTP, telnet and video conferencing.

### **IT in banking**

Modern banking systems run on computers. Every activity of bank is now online. The customer's data and transactions are recorded by computers. Recurring deposits (e-RD), Fixed deposits (e-FD), money transfers (NEFT, RTGS), etc., are done using Internet. Capital market transactions, financial analysis and related services are available in online platforms. Bank customers use Automated Teller Machines (ATM) for cash deposits and withdrawal, or to view current balance.

## **8. What is the role of IT in education and medical field?**

### **IT in Education**

The students, teachers and educational administrators and every stakeholder in the education sector has been benefitted by integration of IT in education.

ICT in the classroom: There are many ways in which the ICT is used for education in the classroom, such as

1. E-learning classrooms with digital learning content
2. Smart-board presentations
3. Videos on science experiments and places difficult to reach like marine life, physiology of the body, space etc.
4. Image and video processing (creation and editing)
5. Desktop publishing of magazines and other documents;
6. Educational games and activities
7. Computer based learning through educational disks
8. Information search and analysis on the Internet.

Any student in India can access the NCERT books online through the website [www.epathshala.nic.in](http://www.epathshala.nic.in) or mobile app. Apart from this there are a variety of websites and mobile apps to access educational resources on any topic. You can also contact a teacher/trainer via Internet to use WBT (Web-based Training). In this way education has reached the far flung areas by reaching the unreached.

ICT is used mostly as a teaching aid in schools to:

1. Use multimedia (pictures, animations, audio-visuals) to explain topics difficult to explain.
2. Make the lessons more engaging and interesting through interactive & animated presentations.
3. Organise lessons, lesson plans, worksheets etc. using the computer.
4. Collect and organise the information relevant to the subjects.

### **IT in Health Care (Medical Sector)**

ICT has revolutionised the health sector great deal. Patient Management Sub-System is used to maintain and manage patients' records. Hospital Management Module takes care of various activities pertaining to hospital administration. The computerised machines are used for ECG, EEG, Ultrasound and CT Scan. The variety of measuring instruments and surgical equipment are used to monitor patients' conditions during complex surgery. Expert systems help in diagnosis. Health care manufacturing companies use computers to aid the production of diagnostic tools and instruments. Laboratory and dispensaries are equipped with advanced computerised machines. They are used in scanning and diagnosing different diseases.

#### **Use of ICT in diagnosis**

With the advancement in computer hardware and software technology, various high-tech machines are used in the diagnosis and treatment of critical diseases. Using expert system, diseases can be

diagnosed at the early stages and the patients can be given treatment accordingly. Some of these machines are:

Computerised axial tomography Machine (CAT)  
ECG—Electrocardiogram Machine  
EEG (Electro-encephalography)  
Blood Sugar Testing Machine  
Blood Pressure Measuring Machine

### **9. How is LMS different from traditional way of training and learning?**

Learning Management Systems (LMS) are used by several institutions to train students and enterprises to train their man power. LMS is different from traditional learning system in that, uses can:

1. Follow lessons anytime, anywhere and by using any device.
2. Submit queries seeking clarity on any topic, getting replies, submit comments through forums.
3. Take part in the co-curricular activities via video.
4. Monitoring the progress and academic performance (usually by parents through parent login).

### **10. How do businesses and banks harness the power of IT?**

#### **IT in business**

Computers are used in various business enterprises for various operations such as payroll calculations, preparing budgeting, sales analysis, financial forecasting, managing inventory and maintaining stocks. Transactions are done through the internet (e-commerce). IT facilitates marketing, customer visit, product browsing, shopping basket checkout, tax and shopping, receipt and process order. E-commerce offers services pertaining to processing inventory management, transactions, documentation, presentations, and gathering product information. Smart cards, such as credit cards and debit cards are used in shops. These cards have a metallic strip on which the user's Personal Identification Number (PIN), and account number is stored and can be read when it is passed through a special reader. Airlines use large-scale computer applications for their reservations system, both in the airports and in central reservations call-centers. Other businesses that have large-scale computing requirements are insurance claims systems and online banking, which both have large numbers of users and operators interacting across a sophisticated system.

#### **IT in banking**

Modern banking systems run on computers. Every activity of bank is now online. The customer's data and transactions are recorded by computers. Recurring deposits (e-RD), Fixed deposits (e-FD), money transfers (NEFT, RTGS), etc., are done using Internet. Capital market transactions, financial analysis and related services are available in online platforms. Bank customers use Automated Teller Machines (ATM) for cash deposits and withdrawal, or to view current balance.

### **11. Discuss the role of government in serving the masses using IT.**

The government makes use of advanced communication technology and large-scale computer applications in its daily operations thus encouraging G2C (Government to Customer) e-governance practices. Digital India and e-governance initiative of Government of India are best examples of this. Government and non-Governmental Organisations (NGOs). In addition to this, International Government Agencies use ICT applications to communicate and provide various services to the people and is called as e-governance. There are various official web portals of the Government of India for e-governance. There are various advantages of e-governance. The Income tax department, sales tax department, preparations of voters list, preparation of PAN card makes use of the computer system. Many government services are available online. Electricity bills can now be paid online. The

government uses electronic voting for elections, by replacing the traditional voting slip and ballot box. People can enroll themselves in the electoral roll through the State Election Commission portal. Computers are common-place in modern society, and tend to make previously laborious manual tasks of data entry much simpler and quicker.

## **12. Write a note on IT applications in general in our daily lives.**

If we look around, we can observe the use of computer and Information Technology in various areas such as homes, workplaces, in the modern service industries and in many other aspects our life. Personally we use IT for entertainment or amusement like listening to music, watching videos, playing games, doing office work and assignments, video chatting and exchanging messages, managing daily plans, reading online books, paying utility bills, booking ticket for traveling, hotels, shows, conducting bank operations, etc. The various application areas are business, banking, insurance, education, marketing, health care, engineering design, military, communication, animation, research, agriculture and government.

A personal computer (PC) or a laptop is used to work at home along with entertainment such as to do household accounts, play games, surf the web, use e-mail, create music, and pursue a range of other hobbies. They are also used to play games. It includes action games, role playing games, puzzles and many more. A PC with a CDROM drive, sound card, and speakers can play audio CD. A computer can be used from home to study a wide range of online training courses. Computers and digital devices are now used for online shopping and e-commerce.

In our daily life, we use air conditioners, refrigerators, washing machines, microwave ovens and many other appliances using software. We can store and manage all the information about our important tasks, appointments, schedules and list of contacts in a computer. Computer is, therefore, playing a vital role in our lives and we cannot imagine the world without computers.

## **Unit 2: Mastering Typing**

**All exercises are practical oriented.**

## **Unit 3: Word Processing**

### **Assessment**

#### **1. What do you understand by text editing in MS Word?**

Using word processors, you can create and use a Word document. Word processors provide flexibility, ease, neatness and speed. You can use it for writing documents such as, articles, letter, resume, report, poem and also making posters. To sum up, a word processor can help you to:

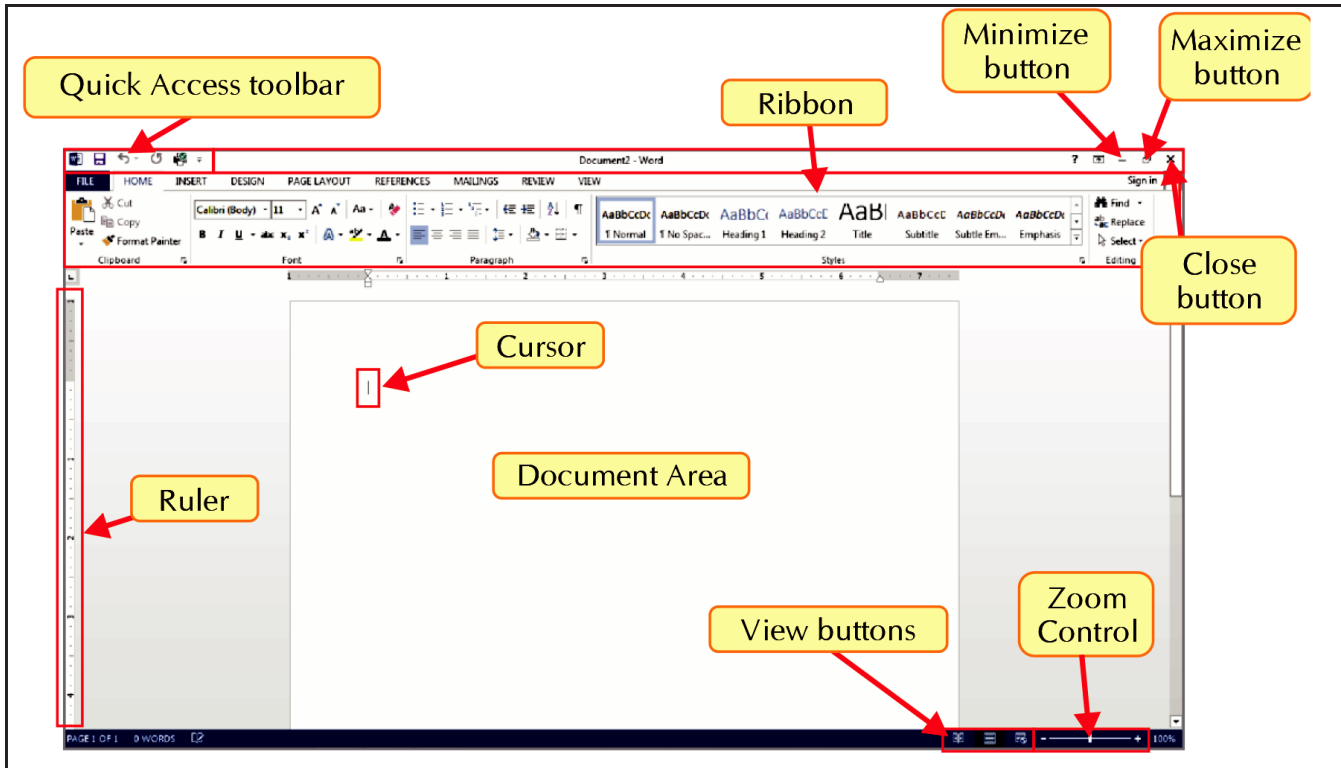
- Correct any spelling mistakes made and also prompt you when you make spelling error.
- Insert or overwrite a word or sentence or paragraph, anywhere in the word document.

This helps to maintain the neatness of the document. This task is called editing the document.

- Print a document created by you and also store it for future use, without a worry of it getting misplaced/ fading. You can also print multiple copies of the document in a single command.

- Change the appearance of different portions of a document, by changing the size of the words, make them bold or italic or underlined etc.
- Insert, headers and footers and page numbers (which increment automatically, if you so desire!).
- Present information in a tabular form as a part of the document.
- Insert pictures, and images into the document.

**2. Write the names of the main components of MS Word interface (window).**



**3. How will you open an existing document in MS**

**Word?** Click on Start > Microsoft Office 2013 > Word 2013

In MS Word, Click on File > Open > Browse...

In the dialog box, locate the desired file and click on Open button.

**4. What is the advantage of Find and Replace tool?**

In a document you may want to search for a specific character, word or a phrase. Instead of going through the complete document, you can use the Find feature. The Find feature can be used to search for all the occurrences of a given word or phrase. The replace feature can be used to replace existing text with a new text.

**5. Name any five Font families (types).**

Goergia      Arial      Impact      Times New Roman      Calibri

**6. How is Spelling and Grammar checking tool useful?**

While typing the text, if any word is misspelled, a red wavy line will appear under it.

Using the spelling check tool, all the spellings and grammatical mistakes that may have occurred while typing, can be rectified and corrected. This tool helps finding put mistakes and replacing them with the suitable suggested correction in an easier and efficient way. It saves a lot of time.



**7. Why do we need to present some content with Bullets & Numbering? Give an example.** Summarising the key points in a bullet form has following advantages:

- a. Main essence of the text is captured in simple bullets.
- b. Easier for reader to grasp and understand.
- c. The main features of the subject can be highlighted easily.
- d. It is easier for the reader to follow the sequence of events or steps.

**8. Describe various text alignments in brief?**

**Left align:** Aligns the text towards left margin.

**Right align:** Aligns the text towards right margin.

**Center align:** Arranges the text aligned in the center of the page.

**Justify:** Distributes the flow of text so that it is arranged at an even distance from left and right margins.

**9. Name the different ways in which a document can be viewed.**

- Read Mode
- Print Layout View
- Web Layout View
- Outline View
- Draft View

**10. Describe the terms: Row, Column, Cell in a table.**

Tables are used to represent a given data in the form of rows and columns.

A row is the horizontal series of cells in a table.

A column is the vertical series of cells.

The intersection of a row and a column makes a rectangular box called a cell.

## Unit 4: Spreadsheet

### Assessment

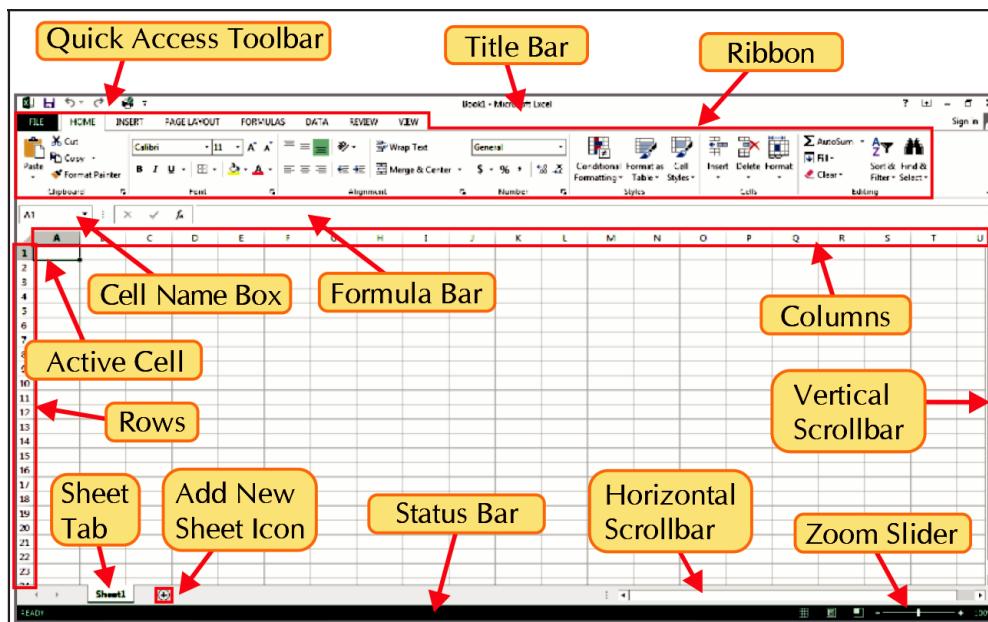
#### 1. Explain any 3 advantages of MS Excel.

- Maintaining and keeping track of financial and mathematical figures and records over the time.
- Analysis of data through various tools like graphs, pivot tables and goal seeking methods.
- Generating various reports useful for management in making decisions (Management Information System – MIS)

#### 2. How can we open Excel using Run window?

Click on Start > In Search box, type Excel and press enter key.

#### 3. Name all the components of MS Excel window.



#### 4. Differentiate between a Workbook and a Worksheet.

A workbook contains one or more worksheet. Workbook is saved with some name in the computer. Worksheets have unique names within a workbook. A worksheet contains data in a row-column format wherein rows are numbered and columns are identified by alphabet.

#### 5. What do you mean by Auto Fill feature?

Autofill features allow us to generate possible lists of values like names of months, serial numbers, and names of weekdays etc. We need to type the initial value, click on the fill handle, and drag it across to generate the list of further values. For a numeric sequence, we need to fill in the first two values in adjacent cells, select them, and then drag with the fill handle of the selection.

#### 6. Write the shortcut keys to insert a row and a column.

Select the row or column then press Ctrl + + (plus)

#### 7. Name any five formatting tools available on the Home tab in Excel.

Font, Font color, Alignment, Number formats, Conditional Formatting

#### 8. Write the steps to format the numbers in a cell in a worksheet.

Select the desired cells > On the Home tab, click on the dialog box launcher (tiny arrow) in the Number section > In the Format Cells dialog box, select the desired number format and click OK.

### 9. What are the uses of Alignment and Font tabs in Format Cells dialog box in a worksheet?

Alignment tab is used to position text and numbers in the cells, change the orientation and specify text control in cells.

1. Click on Alignment tab.
2. Now, click on the required option (for alignment and orientation).
  - **Text alignment:** To align the text horizontally, click on Horizontal list box and choose the required option or to align the text vertically, click on Vertical list box and choose the required option.
  - **Orientation:** Degree of orientation can be set through the Orientation section.

Font tab is used to set the typeface (for example, Times New Roman), along with its attributes (point size, font style, underlining, color, and effects).

1. Click on Font tab.
2. Now, click on the required option.
  - **Font:** It allows you to choose a font (typeface), by clicking a name in the list.
  - **Font style:** It allows you to set the font style i.e. Regular, Italic, Bold and Bold Italic.
  - **Size:** It allows you to set the font size.
  - **Underline:** It allows you to set an underline (of different types).
  - **Color:** It allows you to choose the font colour.
  - **Normal text:** You can select this check box to set the font, font style, size and effects to the Normal style.
  - **Effects:** There are three check boxes. Strikethrough- to draw a line through selected text or numbers, Superscript- to format the selected text or numbers as superscript and Subscript- to format the text or numbers as subscript. Click on the required check boxes to select.

### 10. Write the steps to apply a colourful border to a cell in a worksheet. Applying Cell Border using Format Cells dialog box

Format Cells dialog provides variety of formatting on cell contents.

1. Select the cell(s) where you want to format the text.
2. On Home tab, click on the dialog box launcher in Font or Alignment group.  
Or, right-click on the selected cell(s) and select Format Cells option.

The Format Cells dialog box appears.

Border tab is used to put a border in different styles around a single cell or a range of cells.

In the Format Cells dialog box:

1. Click on Border tab.
2. Now, click on the required option.
  - 2i. **Style:** Select any one of the line style from the list.
  - 2ii. **Color:** Click on the drop-down arrow and select the desired colour.

- 2iii. **Presets and Border:** Click on the buttons (as per your requirement) under Presets or Border. This displays a line with your settings in the sample region.

3. Click on OK button.

**11. Name any 4 operators that are used for arithmetic calculations in Excel.**

+ - addition, - subtraction, / division, \* multiplication

**12. How will you add more worksheets in a workbook?**

The steps to add more worksheets in the workbook are:

Click on New Sheet icon, located next to Sheet1 tab.

Or, 1. Right-click on the Sheet tab.

2. Select Insert option in the context-menu. The Insert dialog box appears.

3. In General tab, select Worksheet icon.

4. Click on OK button.

**13. How will you insert other worksheets in a workbook?**

The steps to add more worksheets in the workbook are:

Click on New Sheet icon, located next to Sheet1 tab.

Or, 1. Right-click on the Sheet tab.

2. Select Insert option in the context-menu. The Insert dialog box appears.

3. In General tab, select Worksheet icon.

4. Click on OK button.

**14. Describe some common settings of Print Preview.**

**Printers:** This drop-down list shows all the printers attached to your computer or available to your computer over a network. You can select the desired printer to print your worksheet from.

**Print Area:** You can select whether to print current (active) worksheet, all the worksheets in the workbook or print only the pre-selected range of cells.

**Page Range:** You can specify from which page to which page should be printed in case you have multipage document.

**15. Briefly describe the use of Page Layout settings.**

**Page Layout tab provides various options in the Page Setup section described below:**

**a) Margins:** This option allows you to change the margin settings for Top, Bottom, Left and Right Margins in the printed page.

**b) Orientation:** Using this option you can change the orientation of printing between Portrait and Landscape. In portrait mode, the height of the paper is more than the width.

**c) Size:** This option allows you to change the size of the paper to be used for printing. Most of the normal printing is done using either A4 or the Letter sized paper.

**d) Print Area:** This option is used, when you do not want to print the complete worksheet, but want to print only a part of the worksheet. In this case:

- First select the Range of cells from the worksheet which have to be printed.
- Select the option Print Area. Then Select the option Set Print Area.

## Unit 5: Digital Presentation

### Assessment

#### 1. What is a presentation?

In various businesses and enterprises, many times people need to present their ideas, business figures, plans, agendas, product information, project details, training content, educational material and a variety of information formally to a number of audiences.

Such presentations can be as simple as in plain text but modern presentations make use of multimedia – text, audio-video, images and animations to ensure that the content presented puts across the ideas and messages in the most engaging, interesting and effective way.

To create multimedia presentations, Microsoft Office provides MS PowerPoint – a digital presentation software application.

#### 2. What is the use of slide show tool in PowerPoint?

In a slide show, all the slides in the presentation are displayed one by one in full screen. Steps to run a slide show are,

1. Click on the Slide Show tab.
2. In the Start Slide Show group, click on the From Beginning button (F5) (to run the slideshow from beginning), or From Current Slide (Shift + F5) (to run the slideshow from the slide which is selected/open in the PowerPoint window).

You can also click on the slideshow icon on the status bar of the PowerPoint window to run slideshow from the beginning. Press Esc key to quit the slideshow.

#### 3. How can we change the background of a slide in a presentation?

Modify background style:

1. Select Background Styles, a list of background styles appears.
2. Hover the mouse over the background style to see the live preview.
3. Click on the desired background style.

#### 4. Name the different slide views available in MS PowerPoint.

Normal view Outline View Slide Sorter View Notes Pages View Reading View Slide Master View Slide Show

#### 5. How can we add text to our presentation?

Inserting a Text Box on the Slide

You can insert additional text boxes in the slide. The steps are:

1. Select the desired slide and click on the Insert tab.
2. In the Text group, click on the Text Box button.
3. Drag the mouse (on the slide, where you want to add the text) to draw the text box.

#### 6. Write a few words about Reading view.

Reading View allows to play your presentation in PowerPoint window without switching to full screen view.

**7. Describe briefly about various options available in following panes/ dialog boxes:**

- a. Format Shape
- b. Format Picture
- c. Format Background

**Format Shape:** Type, Direction, Angle, Color, Position, Transparency and Gradient Stops.

**Format Picture:** Picture Styles, Size, Adjust, Arrange

**Format Background:** Fill (Solid, Gradient, Pattern, Picture/Texture), Transparency

**8. What are the uses of various Slide Layouts.**

1. **Title Slide:** This is used at the starting of your presentation, or to divide sections of your presentation.
2. **Title and Content:** This is a default and most commonly used slide layout. It is used to give topic and its content.
3. **Section Header:** This slide type is used to separate different sections of the same presentation, rather than using an additional Title slide. It can also be used as an alternate to the Title slide layout.
4. **Two Content:** This slide layout is used, if you wish to show text in addition to a graphic content type.
5. **Comparison:** It is similar to the Two Content slide layout, but this slide type also includes a heading text box over each type of content. This type of slide layout is used to:
  - Compare two types of the same content type (for example- two different charts).
  - Show text in addition to a graphic content type.
6. **Title Only:** This slide layout is used, if you want to place only a title on the page, rather than a title and a subtitle. You can then insert other types of objects such as clip art, Word art, pictures or charts if desired.
7. **Blank:** A blank slide layout is often used when a picture or other graphic object that needs no further information, will be inserted to cover the whole slide.
8. **Content with Caption:** This layout is used to place content (most often a graphic object such as a chart or picture) on the right side of the slide. The left side is used for a title and text to describe the topic/object.
9. **Picture with Caption:** The right part of the slide is used to place a picture. The left side is used for a title and text to describe the topic/picture.
  - Using 'Title and Content' layout, inserting the different contents on the slide

## Unit 6: Email Messaging

### Assessment

**1. What do you mean by electronic mail? Give examples of some popular web-based email services and computer-based email applications.**

The most widely used Internet-based communication tool is an e-mail. The term e-mail refers to Electronic Mail. E-mail is a communication system that sends and receives messages through the internet by using specific e-mail addresses or e-mail IDs. It identifies the receiver with an address similar to the postal mailing system.

info@eduitspl.com is an example of an e-mail address. E-mail system is managed by Mail Servers. There are so many mail servers available on the internet, such as Yahoo mail, Gmail, Hotmail, Rediffmail and so on. Through e-mail we can send any type of information such as text messages, music files, video files, images, etc. It stores the mails in the inbox and allows the user to read them at any time and any place or location.

There are two kinds of e-mail services:

- Application based e-mail is installed on the user's computer. The mail is stored on the user's computer (as well as a central server, typically for that specific organization). Some of the examples of application based e-mail program are:
  - Microsoft Outlook
  - Mozilla Thunderbird
  - Opera
  - Foxmail etc.

The user must have an e-mail account either from an internet service provider (ISP) or through one of the free e-mail service providers on the internet.

- Web-based e-mail can be accessed by the user from any Internet-connected computer anywhere in the world. Web-based email is not stored on the user's computer. Many web based e-mail services are available such as gmail.com, outlook.com, yahoo.com etc.

**3. List any 3 key features of email.**

- E-mail can be sent to one person or more than one person at the same time.
- The recipient of e-mail can open the e-mail at his/her convenience.
- Since messages are transmitted electronically over internet, it is a faster way to communicate with the people. Persons could be located in the same office, home, building, or anywhere in the world.

**3. Explain the format of an email address with an example.**

Email address is composed of username and website name that provides the email service. Both are separated by @ sign. Example, niranjan\_k@emailweb.com

**4. Describe the role of various fields in a standard email message**

**format.** The components of standard email message are described as below:

**From:** Sender's email address

**To:** Recipients' email address

**Date:** When the email was sent (takes automatically, no need to enter)

**Subject:** Relevant topic of the message

**Cc:** Carbon Copy. E-mail addresses of other people, who have been sent a copy of the email. The recipients of the email can see all of the e-mail addressed to which the copies have been sent.

**Bcc:** Blind Carbon Copy. E-mail addresses of other people, who have been sent copies of the email but the recipients of the email (in To and Cc) do not know that the same email has been sent to other e-mail address in Bcc.

**Message body:** The actual email message in detail.

**Attachment:** This is optional. It includes any additional files attached along with the message for the recipients.

## 5. List the steps to create email address using Outlook.com

1. Open any browser i.e. Internet Explorer, Mozilla Firefox or Chrome etc.
2. Type www.outlook.com in the address bar of the browser.
3. Now click on Create free account option / button.
4. In the next screen, type your desired email ID and click Next.
5. Type the password you need to keep for your account and click Next.
6. Enter your First and Last Name. Then, click Next.
7. Select Country and enter date of birth. Then, click Next.
8. Enter the verification Captcha code and click Next.
9. After letting you select the language and time zone, Outlook will take you to your mail Inbox.

## 6. List steps to attach email address with Outlook 2013 application.

Click on File tab > Add Account button.

In Add Account dialog box, fill in your name, email ID you need to attach and password. Then, click Next.

If all the details are filled in correctly, MS Outlook will successfully attach your email account.

Click on Finish.

You may need to restart Outlook to bring the new changes into effect.

## 7. What important things you need to keep in mind while composing an email message and before sending it?

1. Mention relevant subject line. Avoid solitary words or phrases. For example, 'Regarding review meeting dated 5/1/19' is a relevant subject but subjects like 'hello', 'data', 'my file' make no sense and due to such subjects email message may end up in the Spam folder instead of Inbox and may be completely overlooked by the recipient. Every email service has a spam service feature which filters the irrelevant looking mails and dumps them into Spam folder. Solitary phrases in Subject field may make Spam filter treat your email message as a spam.
2. Email messages should be short and to-the-point. They are not hearty, detailed messages. Recipient may not have time and patience to go through a long message. Messages should begin with a short greeting followed by short, simple and clear message (short should not sound rude) and end with suitable sign off like 'yours sincerely', 'yours faithfully', 'warm regards', 'best wishes' etc.
3. Short and crisp message does not mean that email message be types as an SMS or chat thread. Avoid using short forms which might confuse the recipient. Also, words in all caps are considered as shouting and is against email etiquettes.



4. For new recipients, your message should be signed off with your complete name, designation and, if preferred, address and contact numbers.
5. Before hitting that Send button, read your message. Ensure that you have conveyed clearly and completely what you intend. Are there any attachments to be added? Then only send the mail.
7. In the formal communication, avoid liberal communication like inserting emojis (emoticons) or language in a lighter mood.
8. Your mail message is not reflecting your tone and voice so even a simple message might sound rude however you might not have meant so. Message, being crisp at the same time should include polite words like 'please', 'kindly', 'thank you', 'grateful' etc.
9. Besides primary recipients ensure you have included intended recipients in CC and BCC. Any irrelevant recipient will be irritated with an unwanted email in his / her mail box.

### **8. What do you mean by 'Reply', 'Reply all' and 'Forward'?**

Reply option is used to reply only to the sender.

Reply All option is used to reply to all the persons included in the communication.

Forward option is used to forward the message to one or more new recipients.

### **9. List the steps to remove spelling mistakes in your email message.**

In Review tab of new message window, click on Spelling & Grammar option in Proofing group.

Misspelt words are marked with a wavy red underline.

As you click on Spelling & Grammar option, Spelling & Grammar dialog box is displayed. It displays the misspelled word and several options in a box.

Choose the correct suggestion (word) and click on the Change button. The spelling changes.

Or, click on Change All to replace it in the entire document.

Or, click on the Ignore Once button, if you want to continue with the existing spelling.

Or, if you want to add your word to the dictionary for further reference, click on the Add button. Once the entire document has been checked, click on Close button.

### **10. How will you send two images along with your email message in Outlook 2013?**

In Outlook, while composing the message, click on Attach File option in Include group of Message ribbon. You can also click on Attach Item to attach any calendar schedule, business card or another email message saved earlier.

In the Insert File dialog box, locate the desired image files, select them using Ctrl key and click on Insert.

### **11. How will you download multiple attachments of an email message together as a zip file in Gmail?**

In Gmail, attachments can be downloaded by bringing the mouse pointer over the attached file and selecting Download icon. Multiple attachments are downloaded at once in the form of a zipped file by clicking on a down arrow usually on the extreme right hand side.

### **12. How will you look up for help about certain action or option in Outlook and Gmail?**

#### **In Outlook**

Help can be invoked by either pressing F1 function key or by clicking the ? icon in the Title bar.

To browse the help topics and pages, help toolbar provides following options:

Back and Forward buttons to go back and forth in between the help pages.

Home button to go to the Top Categories (main menu)

Search box to key in a topic and search for help on that topic online. Print

button to print the required help topic **In Gmail**

In Gmail, to access Help, click on the **Settings** icon of a gear wheel on the right-hand side and select **Help** option.

The **Help** popup is displayed, listing the help topics which user can click and follow. Search box at the top helps in searching for a particular help topic.

You can also click on **Browse All Articles** link at the bottom of the popup to open detailed help in a separate window.

**13. How will you ensure that along with the email message, the attached file is also printed?**

**Printing Attachments Along with the Mail**

Any attachments in the mail are not printed by default. But they can be printed by checking **Print attached files.** option in the Print dialog box. Finally, click on **Print** button.

**14. How will you add a new contact in the address book in Outlook 2013? How will you modify it later?**

**Adding a Contact**

In MS Outlook, the steps to add a new contact are:

In the **New** group of **Home** tab, click on **New Items** drop-down and select Contact.

A blank contact window will open up.

Fill in the details. It is not necessary to fill all the details. You can just enter the necessary details like person's name, job, and email ID.

Finally, click on **Save & Close** option in **Actions** group of **Contact** tab in Contact window

**15. List some default folders and their use in an email application.**

- **Inbox:** Stores emails received.
- **Outbox:** Stores email message being sent until it is sent successfully. Then, it is moved to Sent folder automatically.
- **Sent:** Stores a copy of email messages sent successfully via Outbox.
- **Drafts:** Stores saved email messages which user may complete drafting later.
- **Spam:** Stores unwanted email messages from unknown sources or from the email addresses which have been marked by the user as spam.
- **Trash (or Delete):** Stores the deleted email messages. Messages once deleted from Trash are removed permanently and cannot be restored.

**16. How will you create a folder in Outlook 2013?**

To create a folder under any existing folder:

1. Right click on the desired folder
2. Select **New Folder** option from the popup menu.
3. Type the desired name for the folder and press **Enter**.

**17. How will you create a label under another label in Gmail?**

1. Go to the folder (label) under which you need to create a new label.
2. Select Create new label option.
3. In the New Label popup, type the name for the new folder (e.g. Clients) and click on Create button.
4. To create a folder under an existing folder, select the Nest label under: check box and select the required parent folder from the drop-down list.
5. Click on Create button.

**18. Why do we need to have separate folders in email application or web service?**

In real life, especially in a profession, when people deal daily with a lot of online communication through email, the amount of email messages received and sent grows into a huge bulk. Such bulk collection of email messages is not possible to manage without an organised approach. To manage bulk messages easily, they need to be organised into separate folders which are given relevant names. For example, all the mails from one's manager can be kept in a folder named supervisor or emails from a particular client can be kept under a folder created by the name of that client.

Organising mails under relevant folders help us locate them easily and keeps our inbox uncluttered. Folders can contain subfolders also like a folder named Clients can hold all the subfolders for each of the clients.

# Class X

## PART A: Employability Skills

### Unit 1a: Communication Skills - II

#### SESSION 1: Various Methods of Communication

##### Exercise

**1. What do you mean by oral communication?**

Oral communication is a means of verbal communication where sender and receiver remain present in person. It is done by speaking to each other.

**2. List the things we should keep in mind while communicating orally.**

Active listening, clarity of the purpose of communication, clear and direct communication, suitable language and vocabulary.

**3. How does body language influence our communication positively?**

Confident and clear voice, direct, frank eye contact reflects confidence, truth and sincerity. Eye contact engages others in our conversation. Positive postures and gestures reflect interest, suitable smile, understanding, sincere eyes, composed and calm face and proper use of personal space together make our body language positive.

**4. How does body language influence our communication negatively?**

Unclear speech, low voice, improper eye contact reflects lack of confidence or you are lying, fidgeting, slumping, changing posture frequently show lack of interest, frown, grimace, lack of smile, and not respecting personal space together make our body language negative.

**5. Explain the role of non-verbal communication in our day to communication.**

Non-verbal communication occurs along with non-written verbal communication (oral, telephonic, video meeting) and greatly affects the verbal communication. Verbal communication refers to what is said while non-verbal communication is how it has been said. The factors that constitute non-verbal communication are in general referred to as body language that includes our posture, gestures, expressions, tone and quality of voice, and our movements etc. Our emotions also play a vital role. How do we respect personal space of others, how do we greet people, shake hand and converse with right expressions and posture determine the effectiveness of our verbal conversation.

**6. What are the importance and limitations of visual communication?**

Visual communication is instant, specific, clear and with zero ambiguity. Visual symbols support what we communicate. The creativity of symbols, charts and graphics make the communication interesting and break the monotony of speech and written word.

**Limitations**

- It has its usefulness up to some extent only.

- It cannot replace the content of speech and written word completely.
- It plays supporting role in communicating our ideas.
- Symbols which are not accepted as standard are difficult to understand.

**7. List the meaning of any 10 signs and symbols you have seen around in public places.**

No U turn, Stop, No parking, No smoking, Speed limit 45, One way, Road Diversion, No Horn, School ahead, Left turn.

## **SESSION 2: Providing and Receiving Feedback**

### **Exercise**

**1. What is the role of feedback in communication cycle?**

A feedback completes the communication cycle. Feedback also helps communicators adapt to the changes in communication. Feedback helps communicators devise their next response and ensure that actual purpose of communication is met. Feedback brings about the fruitful end of the communication. Feedback enriches the quality of communication, productivity of the people and creates a conducive environment for performance and achieving the goals.

**2. How should we perform feedback gathering during communication cycle?**

- Do not interrupt the feedback giver.
- Listen to the feedback attentively, if possible make quick notes for later reference.
- Keep positive body language – posture, eye contact, facial expressions and voice.
- Understand that purpose of feedback is not criticism but help in further improvement.
- Be self-aware and in self-control (emotional intelligence). Do not let emotions spoil the process.
- Ask short, specific questions if you have doubt in understanding some thing.
- If needed and possible, ask time to prepare for your response.

**3. List 4 examples of providing feedback.**

- Teachers discuss student's performance with his/ her parents in school meeting.
- Coach sharing observations with players he made after watching their game.
- Employer giving feedback to the employee on his performance.
- Parents advising children about their public behaviour.

**4. List the advantages of feedback in brief.**

The feedback is given to people to help them improve their performance or output. A feedback completes the communication cycle. Feedback also helps communicators adapt to the changes in communication. Feedback helps communicators devise their next response and ensure that actual purpose of communication is met. Feedback brings about the fruitful end of the communication. Feedback enriches the quality of communication, productivity of the people and creates a conducive environment for performance and achieving the goals.

**5. List 4 major skills of giving and receiving feedback.**

- Feedback should give enough data to the person receiving the feedback so that he may understand it correctly.
- Feedback should not tell how person has been compared or judged.
- Feedback should be supportive.

- Feedback should be consistent.

## **6. What is the basic difference between specific and general feedback?**

General feedback is given at short durations for quicker improvements. General feedback covers only the details which help you in improving and adapting quickly to what is required to perform better.

Specific feedback is in detail. It is suggestive - with the feedback you get the advice to eliminate the problem and improve better.

## **SESSION 3: Communication Barriers and Its Measures**

### **Exercise**

#### **1. Is it true that every communication may have certain barriers? How?**

No matter what kind of communication is taking place, there are always certain barriers which arise. For example, environment, noise, prejudice, body language, emotions etc.

#### **2. How do communication barriers adversely affect communication cycle?**

Not using simple, non-ambiguous, clear and relevant language. The image and impression of the other person makes us prejudiced towards him and we judge according to it what he/ she says. Disability in hearing, negative body language, difference in accent, pronunciations, customs & culture, noise, distance, location etc. adversely affect our communication cycle.

#### **3. List certain major communication barriers in day to day communication.**

Language, inappropriate emotions, perceptions and prejudice, body language, cultural and language differences, noise, physical barriers.

#### **4. List major ways to overcome common communication barriers.**

Be prepared, use of suitable language, right emotions and attitude, drop prejudices, handle physical challenges, positive body language, establish expectations, proper use of communication medium.

#### **5. List some day-to-day real life communication barriers you have observed.**

Emotions, attitude, language, lack of attention, improper body language, prejudice and perceptions.

#### **6. How does body language pose barriers in communication? How can we take care of it?**

Many times we avoid or misinterpret posture, gesture, expressions and voice intonations. Body language signals are too fast and occur at the same time so it is natural we miss them. A person looking dull may be ill or not well but still be interested in what you have to say. A person giving cold handshake may still be prepared for meeting and confident.

## SESSION 4: Principles of Effective Communication

### Exercise

**1. How can you say that a communication done is effective? Take a small example.**

If the communication purpose is established, it is clear, complete with no ambiguity and is based on right facts then we can say that it is done effectively.

**2. What factors determine an effective communication?**

Sender, proper encoding of message, communication channel, proper decoding of message, complete, clear, short, correct and concrete message.

**3. List any 5 characteristics of effective communication.**

1. Communication should be based on right facts and should not be vague.
2. Written communication should be concise and to-the-point.
3. Good communication develops relationships, promotes confidence and creates goodwill.
4. Effective communication leads to desired output and achievements.
5. Effective communication establishes responsibility and accountability.

**4. List 7 Cs of effective communication.**

Complete, concise, considerate, clear, concrete, courteous and correct.

## SESSION 5: Basic Writing Skills

### Exercise

**A. Identify the types of phrase in the following paragraph:**

pleasantly surprised (adjective) meeting her friend (verbal), at the airport (prepositional). had been sitting (verbal), in the waiting lounge (prepositional), spotted her (verbal and noun). a lot of experience (noun), time flided very fast (verb, adverb), boarded the same flight (verb), bound to Mumbai (prepositional).

**B. Identify the parts of speech in the following paragraph:**

NOUN	PRONOUN	VERB	ADJECTIVE	ADVERB	PREPOSITION	CONJUNCTION	INTERJECTION
Girl	Her	Lived	Poor	Very much	On	Who	Wow
Anna	She	Thought	New	Suddenly	In	So	Alas
Mother		Loved	Useful		To	And	
Year		Thinking	Beautiful			Which	
Gift		Sew	Long			But	
Hair		Buying	Colourful				
hair ribbons		Wished	Too old				
Clothes		Buy	Shining				
Villagers		Did	Enough				
set of needles		Got	Short				
Threads		Called					
glass box		Said					
Money		Have					
Idea		Saying					
eve of new year		Removed					
Cap		Showed					
Barber		Bought					
		Selling					

### Exercise

**A. Identify main clause and conjunctions in following Complex Sentences:**

- |    |                                       |  |             |
|----|---------------------------------------|--|-------------|
|    | MAIN CLAUSE                           |  | CONJUNCTION |
| 1. | The science show was very interesting |  | as          |
| 2. | that he's rich and famous             |  | Now         |
| 3. | he trained thoroughly                 |  | Even though |

- |    |                  |       |
|----|------------------|-------|
| 4. | winter is coming | Since |
| 5. | she was younger  | When  |

**B. How can you say that following sentences are compound sentences:**

The following are compound sentences because they have two independent clauses (undelined) separated by conjunctions (bold)

1. She walked to class, but Ravi ran.
2. I like pizza, but my brother likes green vegetables.
3. The nurse held up a doll, and the little girl giggled.

**Exercise**

**A. Fill in the blanks with the suitable article:**

1. the
2. The
3. an
4. a
5. The

**B. Is there anything wrong with these sentences? Why?/ Why not?**

All sentences are okay because 'the' is not used before sports name, food item, metal name, proper noun, food name like breakfast, lunch, dinner and colour name.

**Exercise**

**1. Write a paragraph with a topic on the following hints:**

Traveling is fun with adventure. It is a good hobby as it presents opportunities to visit new places and meet interesting people. Travelling lets us make new friends in far places. We get to learn about various cultures, a variety of languages and cultures. Visit to different places enhances knowledge, we meet different people. It accounts for good for health since a tourist is an active and dynamic person. Travelling keeps us fit. Travelling is also a good career option. One can write about the places travelled and publish them in the form of books, blogs and articles. When we meet different cultures and people, we develop an understanding about them, It inculcates good habits such as patience, care, love and concern for others. Overall benefit of travelling is that it improves personality. The only downside of travelling is that it is an expensive hobby. It needs money to travel to different places. Food, stay and other related expenses make it an exclusive hobby. It also claims a lot of time.

**Assessment**

**1. Describe briefly how we can ensure effective verbal communication.**

We can ensure effective verbal communication by active listening, asking questions, being clear on the agenda of the communication, by encoding correct, clear and complete messages, by using proper language and vocabulary, by being prepared before communicating, by anticipating responses for better communication, by avoiding out-of-context references.

**2. How is active listening important in verbal communication.**

Oral communication demands listening attentively and sincerely. This directly helps us to understand the communicated message as desired. When we listen sincerely, we can ask correct questions for better understanding. Listening better minimizes the chance of misinterpreting the message and avoiding misunderstanding and conflict later.

**3. How does body language affect our non-verbal communication?**

Confident and clear voice, direct, frank eye contact reflects confidence, truth and sincerity. Eye contact engages others in our conversation. Positive postures and gestures reflect interest, suitable smile, understanding, sincere eyes, composed and calm face and proper use of personal space together make our body language positive.



Unclear speech, low voice, improper eye contact reflects lack of confidence or you are lying, fidgeting, slumping, changing posture frequently show lack of interest, frown, grimace, lack of smile, and not respecting personal space together make our body language negative.

**4. List some positive body language signs concerning body posture, gestures, expressions, eye contact, touch, personal space and voice.**

Erect stance, relaxed, straight posture, attentive eye contact, sincere nod with the face, sitting with open hands, straight shoulders are signs of positive postures and gestures. Direct, frank eye contact reflects confidence, truth and sincerity. Eye contact engages others in your conversation. Proper handshake and touch. Being respectful to other people's personal space creates a good impression and people open with you quickly. Clear and confident voice.

**5. How is visual communication different from general communication we do day-to-day?**

Visual communication involves visual symbols, pictures, graphics, signs and charts etc. It is very quick and for a short span of time. It is composed of symbols and signs. It supports verbal communication while general communication needs a lot of skills, proper time and active involvement of communicating parties.

**6. What important role does feedback play in effective communication?**

A feedback completes the communication cycle. Feedback also helps communicators adapt to the changes in communication. Feedback helps communicators devise their next response and ensure that actual purpose of communication is met. Feedback brings about the fruitful end of the communication. Feedback enriches the quality of communication, productivity of the people and creates a conducive environment for performance and achieving the goals.

**7. List certain ways of giving and receiving feedback.**

**Providing Feedback**

- Give positive feedback.
- Feedback on behaviour and attitude.
- Discuss negatives tactfully and suggest improvement.
- Do not be personal in giving feedback.
- Chose a place where no one should disturb.

**Receiving Feedback**

- Do not interrupt the feedback giver.
- Listen attentively.
- Keep positive body language.
- Understand that feedback is not criticism.
- Be in self-control.
- Ask short, specific questions.
- If needed, ask time to prepare for your response.

**8. How are general and specific feedback different? What is the advantage of specific feedback?**

General feedback is given at short durations for quicker improvements. General feedback covers only the details which help you in improving and adapting quickly to what is required to perform better.

Specific feedback is in detail. It is suggestive - with the feedback you get the advice to eliminate the problem and improve better.

## 9. What do you mean by communication barriers? How can we overcome these barriers?

Any factor or element that affects the communication process adversely is called communication barrier. There are several factors that constantly function as barriers for better communication. Physical conditions constitute the environment of communication. Hot or cold room, bad seating, poor light, defective communication medium, slow speed of internet while interacting online are environmental barriers in communication. These can be anticipated and taken care of in most of the cases.

Noise, distractions of any sort, distance, undesired turn of events during the communication process are situational barriers which are sometimes difficult to anticipate and need to be handled deftly as they occur.

We tend to jump to conclusions. Emotional state, patience level, temperament, liking and disliking of the communicators are some barriers in effective listening. Unprejudiced, fair and attentive listening is a skill that can be developed slowly for successful receiving and decoding of the message.

### 10. Describe some important principles of effective communication.

- A communication code is mutually agreed. How and in which manner the communication should proceed is very much important. The language, environment and mode of communication also constitute the code of communication.
- When the message is encoded well. Clear, complete and correct message is the strength of communication. This ensures right intention and purpose of the message is communicated.
- Receiver of the message is responsible for how well message is being received and interpreted. Better listening, suitable attention, understanding of the purpose of the communication and a considerate temperament are the keys to correctly decode the message and avoid jumping to conclusions or falling prey to misinterpretations.
- How suitable is receiver's response to the communicated message? This decides further progress of successful communication.

### 11. Describe any 5 Cs of effective communication.

- Complete Message: A message should cover who, what, when, where, why and how. Who this message is meant for?, What exactly do you need to convey?, When is the right time to communicate?, Where are the participants?, Why do you need to do this communication?, How are you going to communicate?.
- Concise Message: Concise means to-the-point, appropriately sized. A too long message leads to confusion. A too short message leaves doubts and questions.
- Considerate Message: Consideration is an important quality for a good communicator. Keep the recipient of the message in mind when you communicate. Message should meet the requirements of the recipient.
- Clear Message: A clear message has simple language and it avoids ambiguous, confusing terms. Sentences are short and simple. Facts are informed in a language easily understood by all.
- Concrete Message: A concrete message mentions expected outcomes of the communication. Concrete message focuses on the central idea and purpose of the communication.

### 12. What do you mean by complete, concise and concrete message?

Complete message should cover who, what, when, where, why and how. Who this message is meant for?, What exactly do you need to convey?, When is the right time to communicate?, Where are the participants?, Why do you need to do this communication?, How are you going to communicate?.

Concise means to-the-point, appropriately sized. Depending on the kind of communication, the duration and contents of the messages need to be determined. A too long message leads to

confusion and misunderstanding. A too short message leaves doubts and questions. Concise message contains necessary and relevant information.

A concrete message mentions expected outcomes of the communication. Concrete message focuses on the central idea and purpose of the communication and avoids unnecessary details to prevent distractions.

**13. How is a phrase different from a sentence? Give 2 examples.**

A set of words that indicates some object or action but does not makes complete sense is called a phrase while a group of words that makes complete sense is called a sentence.

A phrase is a part of a sentence. For example:

Phrase:	a red bicycle	Sentence:	Lata is riding a red bicycle.
Phrase:	is sitting	Sentence:	The monkey is sitting on the tree.

**14. Giving 2 example each, explain compound and complex sentence.**

Compound sentence: A compound sentence has at least two main, independent clauses and may have subordinate clauses. All clauses are separated by conjunctions (like and, but, while, when, which, whereas, therefore etc.)

E.g. I would like to have a coke or a cold coffee.  
 Here, or is conjunction joining two main clauses - have a coke and a cold coffee.

Complex sentence: A complex sentence has only one main clause and at least one subordinate clause.. E.g. She was not happy with Ravi because he was late for work.

[first clause is main and second one is subordinate]  
 Because Ravi was late for work she was not happy with him.  
 [first clause is subordinate and second one is main]

**15. How does articles differ in usage for consonants and vowels? Explain with 2 examples.**

Indefinite articles, ‘A’ and ‘an’ are indefinite articles which are used with singular noun.  
 For example, There bought a book. I saw an aeroplane.  
 Article ‘an’ is used before vowel sounds and ‘a’ is used before a consonant sound.  
 For example, He eats an apple daily. Butterfly is an insect.

**16. Cite 4 examples where article ‘The’ should not be used.**

Breakfast will be served early.  
 Diamonds are precious than gold.  
 Both Ravi and Raj went on a picnic today.  
 I like to play tennis on the weekends.

**17. What are the basic rules of good paragraph writing?**

Topic of the paragraph: The topic on which the paragraph needs to be written should be clear.  
 Opening sentence: A paragraph should begin with the main or topic sentence that clears about the title of the paragraph.  
 Expansion or explanation: This part includes the sentences which elaborate on the topic more.  
 Conclusion: Paragraph should end properly with a closing sentence or conclusion.  
 Here, the first sentence is topic sentence and last one is the concluding sentence.

**18. To write an essay about your school, which basic writing skills would you apply?**

Every essay is a set of several paragraphs written in a logical sequence of the flow of the topic. Divide your essay into subtopics then write paragraphs for each subtopic by following the basic paragraph writing rules that are: Opening sentence, expansion or explanation of subtopic, writing conclusion of the subtopic so that it connects with the next sub topic of the essay. In last para of essay, summarise entire essay.

## **Unit 1b: Self-Management Skills – II**

### **SESSION 1: Stress and Its Effects**

#### **Exercise**

**1. What do you mean by stress? What is the difference between eustress and distress?**

When body and mind try to adjust with the changes around us we go into a state of stress. Eustress is the good effect of stress like we feel elated when we pass the exam with flying colours. Distress is negative form of stress like we feel discouraged when we fail in achieving something.

**2. List some common symptoms of physical and psychological stress.**

Common physical effects of distress: Headache, Muscular tension, fatigue, chest pain, upset stomach, disturbed sleep and low energy.

Common psychological effects of distress: Anxiety, feeling demotivated, loss of attention, depression and frustration, angry outbursts, drug and alcohol abuse, social withdrawal, over reaction.

**3. List some distress symptoms due to over-work or over-study.**

Headache, fatigue, disturbed sleep, low energy, anxiety, feeling demotivated, loss of attention, depression and frustration, angry outbursts and over reaction.

**4. How does stress affect working women?**

Stress for working women is more. Taking care of domestic front and home making becomes difficult. Balancing with relations, friends and work causes a great deal of stress.

**5. What do you mean by internal stress?**

Anxiety, fear of any possible problem, unrealistic expectations, diagnosis of a fatal disease. Internal distress, if not taken care of timely, leads to physical conditions like headache, heart ache, insomnia, memory loss, chronic anxiety, high blood pressure and loss of focus.

**6. What is fight-flight-freeze response?**

Fight-flight-freeze is the response due to need of survival in sudden danger. One part of our nervous system controls fight-or-flight response. This prepares the body for violent response. After the response is through, other part of nervous system helps body to return to normal condition.

In freeze response, body is unable to respond for certain duration until the danger passes or the victim succumbs to the danger. This response triggers when impending danger seems too much to deal with. It also triggers during certain very normal situations such as public speaking.

### **SESSION 2: Stress Management Techniques**

#### **Exercise**

**1. Being a student, list some common stress symptoms you feel.**

Students should answer this themselves.

**2. List the sources of this stress.**

Students should answer this themselves.

**3. List some good working or study habits.**

Discipline and plan.

Do not try to please everyone. Learn to say no if you really cannot help something.

Keep work-family balance. For scholars, keep a study-recreation balance.  
Plan your breaks and holidays.  
Stick to deadlines or self-study timetable.  
Do not over-work or over-study.

#### **4. How will you manage internal stress?**

Positive attitude.  
Adapt to the changing situations as much possible.  
Be firm not angry or aggressive.  
Keep fit.  
Manage time effectively.  
Good sleep, laughter, hobbies, good meal.  
No smoking, alcohol and any such vice.  
If needed, seek medical advice.

#### **5. How does going on vacations, morning walks and following a hobby help in reducing stress?**

Take nature walks or early morning walks to relax the mind and re-energise the body. Going on vacations boosts energy due to change of place and climate. Following a hobby boosts positive stress.

### **SESSION 3: Ability to Work Independently**

#### **Exercise**

##### **1. What do you mean by working independently?**

Being able to work independently means accomplishing the tasks assigned to you without unnecessarily claiming the time of other people. It means you are aware of your strengths and weaknesses, able to adapt with the team, own your task and take responsibility of any mistakes.

##### **2. List the skills required to work independently.**

Ability to organise work as the needs arises.  
Personal integrity.  
Ability to handle multiple tasks efficiently.  
Self-awareness of abilities and limitations.  
Self-discipline and self-regulation.  
Communication skills.  
Ability to adapt to the changing situations.  
Handling failures and setbacks positively and responsibly.

##### **3. What do you mean by multi-tasking, self discipline and agility?**

Multitasking is the ability to handle multiple tasks, prioritise them according the change in situation and finishing all the tasks at hand successfully.  
Self-discipline and self-regulation come from self-management. Able to identify time-wasting activities. Knowing how to regulate yourself to utilise the time at hand for completing tasks timely.  
Ability to adapt to the changing situations and managing time accordingly is called agility.  
Delivering with short time lines and knowing how to utilise time effectively.

#### **4. Can you cite any failure which became a learning experience for you?**

Students should answer this themselves.

#### **5. What are internal and external self awareness?**

Internal self-awareness: Our values, beliefs, passions and standards are revealed when we do internal self-awareness. These traits help us in interacting with our surroundings and environment.

External self-awareness: Ability to assess or see how other people view us is called external self-awareness. External self-awareness brings self-improvement, good leadership skills, better understanding of people and it determines people's liking/ disliking us in one way or other.

#### **6. List some ways to become self-aware.**

Reflect on your thoughts.

Practice good listening and become a good listener.

Ask for feedback from others about yourself.

Think in terms of "what" instead of "why". For example, What could be the possible reasons instead of why it is happening to me?

#### **7. How self-motivation and self-regulation help you achieve your goals?**

Self-motivation is our inner ability act upon our thoughts. Our weaknesses may counter self-motivations. That is why, for self-motivation, self-awareness is necessary. Right kind of self-awareness motivates us to take action on our thoughts. This journey from thought to action is done by self-regulation. You command all your strengths. You begin working on your weaknesses. This automatically brings in self-regulation. This helps us to reach the set goal.

### **Assessment**

#### **1. What do you mean by the term self-management?**

Managing oneself in order to achieve desired goals and targets is called self-management. Every task we do has a thought process behind it. This gives birth to a plan to follow in order to accomplish that task. Self-management exercise which involves management of resources, time management, identifying goals to achieve and prioritizing the goals.

#### **2. Why is self-management important for us?**

Self-management brings inspiring personality, clarity of thoughts, respect for the importance of time, higher achievement rate, self-discipline, social popularity.

#### **3. Differentiate between eustress and distress with example.**

Positive stress is known as eustress while negative form of stress is called distress. Eustress is commonly identified by excitement, elation and charging up of emotions. Like, when we get promoted to a higher class, we feel happy, excited, elated. Eustress promotes positive feelings like motivation, positive energy, excitement. But eustress is generally short term.

Distress is the reaction of our body to the harmful situations - real or imaginary. Distress affects us physically as well as psychologically. Headache, muscular tension, fatigue, disturbed sleep, anxiety, feeling demotivated etc are symptoms of distress.

#### **4. Discuss how stress affects us physically and psychologically.**

Distress is the reaction of our body to the harmful situations. These situations could be real or they could be out of our imagination only. Distress affects us physically as well as psychologically.

Common physical effects of distress: Headache, Muscular tension, Fatigue, Chest pain, Upset stomach, Disturbed sleep and Low energy.

Common psychological effects of distress: Anxiety, Feeling demotivated, Loss of attention. Depression and frustration, Angry outbursts, Drug and alcohol abuse, Social withdrawal, Over reaction.

**5. What is chronic distress? Discuss stress in professionals due to work.**

Distress which is ignored for a long time and then it becomes like a habit. It affects the body and mind drastically. The kind of profession determines the amount of stress. For professionals, stress goes hand-in-hand. Some common reasons for work related distress are higher performance expectations at work, closer deadlines, insecurity of job, internal team conflicts, relationship and differences with supervisor, travel conditions, lack of competency in doing the job at hand, delayed or held up salary, nature of job like touring, longer or odd hours, concerns related to job satisfaction.

**6. What do you mean by internal distress? How will you manage it to reduce its adverse effects?**

Anxiety, fear of impending disaster, unrealistic worries. Internal distress is dangerous as it keeps building up inside and leads to physical conditions like headache, heart ache, insomnia, memory loss, chronic anxiety, high blood pressure and loss of focus.

Some tips to deal with internal stress are:

- Positive attitude.
- Adapt to the changing situations.
- Keep fit.
- Manage time well.
- Good sleep, laughter, hobbies, good meal etc.
- Quit smoking, alcohol and any such vice.
- If needed, seek medical advice.

**7. Explain the distress effects due to environment and surroundings.**

Our unsuitable surroundings and environment can be the cause of distress. When we talk about environment, there are following two aspects:

Quality of surroundings: Noisy, dirty, polluted, crowded, low quality of life (food, water, electricity and other amenities)

Work and living conditions: Distractions, congested work place, interaction and relationship with people, shabby place.

**8. Explain fight-flight-freeze response during mortal danger. How does our nervous system handle this response?**

Fight-flight-freeze is the response due to need of survival in sudden danger. One part of our nervous system controls fight-or-flight response. This prepares the body for violent response. After the response is through, other part of nervous system helps body to return to normal condition.

In freeze response, body is unable to respond for certain duration until the danger passes or the victim succumbs to the danger. This response triggers when impending danger seems too much to deal with. It also triggers during certain very normal situations such as public speaking.

**9. How can we identify the source of stress?**

Find answers to the following questions:

- What are the real reasons of my anxiety? (Are they real or imaginary?)
- Am I working under pressure for long? (Do I need a break?)
- Do I really feel right? (Am I not well or need to take medical advise?)
- Am I emotionally upset at something or someone? (Do I need to talk to someone?)
- Are my activities time-wasting? (Do I need to review my working or study plans?)

**10. How can healthier life style help us manage stress well?**

- Avoid smoking/ alcohol/ drugs. Ask yourself - is it very frequent or occasional? Smoking, drugs and alcohol should be quit. It is a myth that a quick smoke or a small peg or one shot of drug will provide relaxation. These are not medicines.
- Good eating habits. Do you overeat or undereat and when? What is the food quality?
- Develop good sleeping Habit. How much do you sleep? Is there a balance between being online, watching TV and sleeping? Are you ensuring at least 7 hours of sleep?
- Inculcate healthy hobbies. Pick up some creative hobbies that boost health and activate mind. Painting, creative arts, joining gym or any sports activity, yoga, laughter clubs, even spending quality time with your family and friends help relieve your stress.
- Keep good company. Try keeping away as much as you can from the people with negative thoughts, who always discourage or talk low-esteem.

**11. What are the healthier working or study habits that help reduce stress?**

- Bring discipline in work and study. As yourself - am I planned? Is there a study time table? Am I on schedule? Time-bound goals and avoiding procrastination (not prioritising the tasks according to their importance) need to be practiced.
- Do not try to please everyone. Leant to say no if you really cannot help something.
- Plan to keep a work-family balance. For scholars, keep a study-recreation balance.
- Plan your breaks and holidays.
- Stick to your delivery deadlines or self-study timetable.
- Do not over-work or over-study.

**12. How can you say that sometimes eustress helps in counterbalancing distress?**

In most of the cases, it is not possible or it is difficult to change your surroundings, environment, working conditions, school or college. We can still do certain things to adapt well in such case like taking nature walks or early morning walks to relax our mind and re-energise our body, going for vacations for a change of place and climate and return with boosted energy, adopting hobbies to boost your eustress and participating in community activities.

**13. List some tips to manage environmental stress.**

Take nature walks or early morning walks to relax your mind and re-energise your body.

Go for vacations for a change of place and climate and return with boosted energy.

Adopt yoga, fitness training, activity club to boost your eustress.

Participate in community activities that help in improving environment and surroundings like anti-pollution drive, swachhta abhiyaan activities etc.

**14. Despite the importance of team work, how does the ability to work independently helps an individual? Give example.**

Most of the tasks are accomplished through teamwork. But there are many cases where our ability to work independently is important. Working independently is not like working alone. Being able to work independently means accomplishing the tasks assigned to you without unnecessarily claiming the time of other people. For example, if you are a part of the Green Club team in your school which has planned to plant certain trees in a locality. You are assigned to collect funds for procuring seeds for 20 trees by next Sunday then no other team member should help you in this. It is something you need to do independently.

**15. List some major traits of an individual able to work independently.**

- Ability to organise work as the needs arises.
- Personal integrity.
- Ability to handle multiple tasks efficiently.



- Self-awareness of abilities and limitations.
- Self-discipline and self-regulation.
- Communication skills.
- Ability to adapt to the changing situations.
- Handling failures and setbacks positively and responsibly.

**16. Write a note on personal skills discussing their benefits.**

Personal skills are those skills which are developed by the individual through self-learning and self-motivation. Personal skills help us to accomplish our tasks with our self-efforts and by inviting least external help. Ability to work alone helps us independent in different ways. Organising our work against changing requirements, personal commitment, managing multiple tasks, being aware of our limitations and strengths, self-management and ability to handle failures responsibly are some traits of personal skills. These skills provide us unique efficiency and help us stand out in our performances and delivering the assigned tasks.

**17. How can we say that one is self-aware? Explain two types of self-awareness.**

Anyone who knows his/ her strengths, weaknesses, beliefs, abilities, limitations etc. is called to be self-awareness.

Internal self-awareness: Our values, beliefs, passions and standards are revealed when we do internal self-awareness. Also, that way these traits help us in interacting with our surroundings and environment. Internal self-awareness tells you your favourite subject, your favourite sports, what you aspire to become, what you do not like doing or achieving, how you look at other people, how your attitude is built up on your values.

External self-awareness: Ability to assess or see how other people view you is called external self-awareness. External self-awareness brings self-improvement, good leadership skills, better understanding of people and it determines people's liking/ disliking you in one way or other. External self-awareness helps you deliver tasks in a better way.

**18. What will you do to become self-aware?**

To become self-aware, we must reflect on our thoughts. Retrospect what we have been doing in past days. Become a good listener to what people speak to us. Ask for feedback from others about ourself, our work and what we do. We should think in terms of "what" instead of "why". For example, What could be the possible reasons that prevented me from getting good marks in last test?

**19. What benefit do you draw by knowing your weaknesses and strengths?**

Knowing our weaknesses gives an insight as to what we are not able to do. Accepting weaknesses and working on them enhances our abilities and skills. Instead of being over-confident, if we really know our strengths then we can utilise them in right way to achieve our goals.

**20. How does self-awareness help in achieving self-motivation and self-regulation?**

Self-awareness motivates us to take action on your thoughts. We complete the journey from thought to action by self-regulation. When we look at a task we think it is too challenging to take up but when we analyse it keeping our self-awareness in mind things become clear. We begin working on our weaknesses. This brings self-regulation. A planned routine, working on our emotional intelligence, anticipating obstacles and working to overcome them to reach the set goal.

## Unit 1c: Basic ICT Skills – II

### SESSION 1: Documentation Using a Word Processor

#### Exercise

All exercises are lab practices.

### SESSION 2: Performing Tabulation Using Spreadsheets

#### Exercise

All exercises are lab practices.

### SESSION 3: Preparing Digital Presentations

#### Exercise

All exercises are lab practices.

### SESSION 4: Edit Text in a Presentation

#### Exercise

All exercises are lab practices.

#### ASSESSMENT

**1. What do you mean by word processor? What is autocorrect?**

The term word processing refers to the process of keying in, formatting, editing and laying out the contents of a document in a software. The software that is used for creating documents is called word processor.

Autocorrect allows to create short words that expand into actual longer word or phrase to ease down the effort of typing. For example, while making your project report, if you are going to use a word such as entrepreneurship then you can define a short-term for it like ent. When you type ent, it will automatically expand into entrepreneurship.

**2. What is text formatting? How will you do it in a word editor?**

Changing look and style of the text is called text formatting. It includes the following:

**Font Styling:** Font style is used to emphasize the text with Bold, Italic and Underline options.

**Bold (Ctrl + B):** Select the desired text and on the Home tab, in the Font group, click on the Bold button.

**Italic (Ctrl + I):** Select the desired text and on the Home tab, in the Font group, click on the Italic button.

**Underline (Ctrl + U):** Select the desired text and on the Home tab, in the Font group, click on the Underline button.

**Font:** A font is the shape or look of the text on the computer.

Select the desired text. On the Home tab, in the Font group, click on the drop-down arrow present on the Font button. Then, select the desired font from the displayed list.

**Font Size:** The size of the characters in the text refers to the font size.

Select the desired text. Then, on the Home tab, in the Font group, click on the drop-down arrow present on the Font Size button. Then, elect the desired number (font size) from the displayed list.

### 3. How will you password protect a document in any word processing software?

While saving the document, in the 'Save As' dialog box, at the bottom, click on 'Tools' drop-down and select 'General Options...' Here, you can apply password to open the document and to modify the document.

Type the desired password to open the document in 'Password to open:' field. Click on 'OK'. Word will prompt to reenter the same password. Do so and click 'OK' in the popup dialog box.

### 4. What is a worksheet? What is the use of data sorting and filtering?

A worksheet is a set of rows and columns. A set of worksheets is called workbook.

Rows: These are horizontal lines of cells, labeled as numbers 1, 2, 3, 4, 5 and so on.

Columns: These are vertical lines of cells, labeled using letters A, B, C, D and so on.

Sorting is used to arrange the data in ascending or descending order. Sorting data can be done for alphabets, numbers, date and time, cell color, font color or icon set.

The filter tool separates the data that matches the given criteria. Filtering data displays the data in the rows that meet the criteria and hides the rows that do not meet the criteria. Filtering a database allows to manipulate records as a group, separate from other database.

### 5. What is the advantage of a function in spreadsheet?

Functions allow us to perform various operations easily on a set of values. For example,

Sum : It takes values, cell addresses or cell range and returns their sum.  
 Syntax: =SUM (value1, value2, etc.) // =SUM(range of cells)  
 Example =SUM (15, 25, 65) Output=105

Average: This function is used to find the average of the specified data.  
 Syntax: =AVERAGE (value1, value2, etc.)  
 Example =AVERAGE (10, 20, 30) Output=20

### 6. What do you mean by the terms row, column, cell, formula, worksheet and workbook?

Rows are horizontal and numbered. Columns are vertical and identified by alphabet. Cross-section of a row and a column is called cell. Each cell is identified by a cell address that includes column alphabet and row number for instance, B12 is second column and 12<sup>th</sup> row. Formula is an expression that contains values or cell addresses where values are located and the operators. Worksheet is a set of rows and columns. It is identified by a unique name. It stores the data worked upon by the user. Workbook is a set of worksheets. It is saved as file with relevant name.

### 7. What do you mean by slide transition? List any 5 transition effects.

Slide transitions are visual effects that occur in Slide Show view, when you move from one slide to the next during an on-screen presentation.

Some slide transition effects are cut, fade, push, split, reveal etc.

### 8. What is the benefit of animation? How will you apply animation on an object on the slide?

Animation makes the presentation effective and engaging. A simulation of movement, created by displaying a series of pictures, or frames is called animation. An animation contains visual effects. Animation makes the presentation more engaging for the audience.

The steps to apply animation to an object are:

1. Select the object that you want to animate.
2. On Animations tab, click on More drop-down arrow in the Animation group.
3. A drop-down menu appears. Select the desired effect.
4. The effect is applied to the object.

**9. Write the steps to insert an image on a slide.**

The steps to insert a picture on a slide are:

1. On the Insert tab, in the Images group, click on the Pictures option for local storage (or Online Pictures option for pictures from Internet). The Insert Picture dialog box appears.
2. Locate and select the picture that you want to insert.
3. Click on the Insert button.

**10. How will you insert a text box on the slide?**

1. Select the desired slide and click on the Insert tab.
2. In the Text group, click on the Text Box button.
3. Drag the mouse (on the slide, where you want to add the text) to draw the text box.

**11. Describe various slide layouts.**

The slide layout in PowerPoint is the arrangement of all the items that prepare your slide. Slide layouts contain formatting of text (including body text, bulleted lists, and titles), tables, charts, SmartArt graphics, movies, sounds, pictures and clip art. There are nine basic slide layouts in MS PowerPoint.

These layouts are:

Title slide: Display title of the presentation. You can keep other text also.

Title and Content: You can display title and some content also.

Section Header: You can divide content into sections.

Two content: You can arrange content into two columns.

Comparison: Like Two Content. You can use it to display comparisons.

Title only: This contains just one text box at the slide top for title.

Blank: Use it if you use to create the slide all by yourself.

Content with caption: You can display the content along with some relevant caption.

Picture with caption: You can display the content along with some relevant image.

**12. What will be the output of the following functions?**

- |    |                          |                              |
|----|--------------------------|------------------------------|
| a. | =MAX(15, 18, -7, 210, 3) | 210                          |
| b. | =MIN(15, 18, -7, 210, 3) | -7                           |
| c. | =AVERAGE(5,15,4)         | 8                            |
| d. | =TODAY()                 | Current system date and time |

**13. Write brief notes on:**

- a. **Header and footer**
- b. **Formula and function**
- c. **Animation and transition**

a. In a multi-page, if we need to insert any information which is common across the pages such as title of the book, page numbers, logo of the company etc., we can insert them in header at the top of the page or in footer at the bottom of the page. Contents of header and footer appear generally on each page unless you check the options Different First Page and Different Odd and Even Pages under Design tab.

b. Functions allow us to perform various operations easily on a set of values. For example,

- |          |  |
|----------|--|
| Sum:     | It takes values, cell addresses or cell range and returns their sum.<br>Syntax: =SUM (value1, value2, etc.) // =SUM(range of cells)<br>Example =SUM (15, 25, 65) <span style="float: right;">Output=105</span> |
| Average: | This function is used to find the average of the specified data.<br>Syntax: =AVERAGE (value1, value2, etc.)<br>Example =AVERAGE (10, 20, 30) <span style="float: right;">Output=20</span>                      |

A formula is an equation that performs a calculation. It is an expression that contains values or cell addresses where values are located and the operators. Example: =A5 \* 2 Here, value in cell A5 and 2 are operands and \* is multiplication operator.

c. Slide transitions are visual effects that occur in Slide Show view, when you move from one slide to the next during an on-screen presentation.  
Some slide transition effects are cut, fade, push, split, reveal etc.

Animation makes the presentation effective and engaging. A simulation of movement, created by displaying a series of pictures, or frames is called animation. An animation contains visual effects. Animation makes the presentation more engaging for the audience.

## **Unit 1d: Entrepreneurial Skills – II**

### **SESSION 1: Characteristics of an Entrepreneur**

#### **Exercise**

#### **1. How entrepreneurs positively contribute to society?**

Entrepreneurs often do more for the greater good than the average person. They make honest money with great struggle and pay for taxes and public services thereby contributing and returning to the economy. Many of them take green initiatives for environment and contribute to the charities for social causes.

Entrepreneurs play a key role in increasing the standard of living in a community. They create jobs and also develop and adopt innovations leading to improved quality of life of their employees, customers, and other stakeholders in the community.

Entrepreneurs, create opportunities for jobs. They take risks of self employment. As their business grows, opportunities for more jobs are created. This greatly contributes to the eradication of unemployment problem in the nation.

#### **2. List main characteristics of an entrepreneur.**

Planners and confident, creative, risk taker, professional, innovative thinkers, open to challenges and failures, socially skilful, passionate and with leadership skills.

#### **3. What are the main functions of an entrepreneur?**

Management: Predicting, planning, organising, coordinating and controlling the team, functions and interactions.

Sales and Promotion: It influences the processes of bringing in revenues and developing business relations. Addressing the customer segment and promoting the innovative product, devising promotional strategy and activities are one of the prime concerns of an entrepreneur.

Finance and Commerce: Identifying sources of funding and getting prospective investors. Commercial functions include looking into production and manufacturing process or the processes related to service delivery. Involving into financial transactions, analysing the financial figures and plan ahead.

## **SESSION 2: Role and Significance of an Entrepreneur**

### **Exercise**

#### **1. How do entrepreneurs enhance living standard of people and create jobs?**

Entrepreneurs play a key role in increasing the standard of living in a community. They create jobs and also develop and adopt innovations leading to improved quality of life of their employees, customers, and other stakeholders in the community.

Entrepreneurs create opportunities for jobs. They take risks of self-employment. As their business grows, opportunities for more jobs are created. This greatly contributes to the eradication of unemployment problem in the nation.

#### **2. How do entrepreneurs contribute to industrial development and economical growth?**

Entrepreneurs setting up new businesses and industrial units help with regional development by locating in less developed and backward areas. The growth of industries and business in these areas leads to infrastructure improvements like better roads and rail links, airports, stable electricity and water supply, schools, hospitals, shopping malls and other public and private services that would not otherwise be available.

India's MSME sector, accounts for over 35% of the country's GDP by making use of resources like land, labor and capital that add to the national income, national product and per capita income of the country.

#### **3. How do entrepreneurs mobilise public wealth and contribute to society?**

By establishing the business entity, entrepreneurs invest their own resources and arrange for capital and investments. The source of funding may be investors, lenders and the public. This mobilizes public wealth and benefits people as well as all stakeholders in the form of the success of the growing business. This kind of contribution of funds from different sources makes the foundation on which the business entity is erected.

Entrepreneurs often do more for the greater good than the average person. They make honest money with great struggle and pay for taxes and public services thereby contributing and returning to the economy. Many of them take green initiatives for environment and contribute to the charities for social causes.

## **SESSION 3: Myths Related to Entrepreneurship**

### **Exercise**

#### **1. Do you think entrepreneurship is easy? Why/ Why not?**

No. Entrepreneurship involves greater risks. Conceiving an innovative service or product is challenging in itself. Then convincing people of your idea and mobilising funds also needs a lot of efforts. Making the service/ product reach the masses and get accepted is another barrier to scale. At every step there are new kind of challenges.

**2. Entrepreneurs have a time-bound schedule. Do you think this statement is true? Why/ Why not?**

Yes. An entrepreneur walks, talks, eats and sleeps his/her dream. They do not have the time-bound schedule of an employee. They also do not have luxury to hire a big team that works for them. They are actively involved in all processes of their venture so there is no time-bound schedule for them. They have luxury of flexibility but idea of freedom is a big myth.

**3. Is it a myth that every start-up should begin with a new product or service?**

Entrepreneurs do the things differently or innovatively. As an entrepreneur if you have a new product to offer, it is good but most start-ups have found innovative and creative ways in offering the same products and services. This is called disruption. Paytm, Uber, Ola etc. are disruptions.

**4. Do start-ups need a huge amount of funds to begin? Explain.**

One aspect of innovation is thinking of an idea which can be launched at a smaller scale that can start with a small amount. At later stages, it can be scaled up to bigger product and using more funds as it would be easier to do so once brand is established in the market. Most of the start ups begin at small scale, home based ventures.

## **SESSION 4: Entrepreneurship as A Career Option**

### **Exercise**

**1. Find some good entrepreneurship course on internet. Make a small write up about them and the institutes that provide these course.**

Students should devise this answer themselves as instructed in the question.

**2. Go to entrepreneur.com, business.com and franchise.com and spend some time there to find out what sorts of business opportunities are there for youth.**

Students should devise this answer themselves as instructed in the question.

**2. List a few advantages of entrepreneurship.**

Some common advantages of having entrepreneurship as career are:

1. Control: You plan, chose and design the things the way you need or like.
2. Excitement: Each day brings its own challenges, opportunities, risks and rewards.
3. Flexibility: Working hours can be planned as per the required work and commitments.
4. Freedom: In terms of location, timings and team building there is comparatively more freedom.
5. Recognition: Once business grows, people begin to recognise you and get inspired by you.
6. Growth: You can determine the pace of start-up's growth as you require.

**3. List a few disadvantages of entrepreneurship.**

Some common disadvantages of having entrepreneurship as career are:

1. Competition: You need to be on constant lookout to update yourself on the competition in market.
2. Lone struggling: Entrepreneurs are normally a small team. Struggle is not contributed by many stakeholders. Mostly risk taking lies on the entrepreneur him or herself.
3. No regular income: Income in business is not predictable. It directly relates to your efforts and revenues earned.
4. Greater responsibilities: As an entrepreneur you own everything so you shoulder the bigger responsibility of all the processes and functions in your business.

5. Longer working hours: There are no fixed hours and days for an entrepreneur. He/ she eats and sleeps the business. They always think what new can be added for further growth.
6. Funding and finances: If business goes down, managing new finances could be difficult.

## **ASSESSMENT**

### **1. What do you mean by characteristics of an entrepreneur?**

An entrepreneur is one who sets up a the business this way. Entrepreneurs are some of the world's most powerful transformers. Elon Musk, Bill Gates, Steve Jobs are entrepreneurs who imagine the world differently.

Entrepreneurs know what they wish to achieve and they have a plan to achieve it. They are creative. Creativity causes innovations. Innovative ideas come out of the box thinking and the base of it is creativity. They take risks. They are skilled in social interactions and open to knowledge, learning and failures Entrepreneurs like to work with democratic teams. Entrepreneurs resolve conflicts and recognise the good achievements. They are customer oriented and passionate. If they meet the failures, they look for what had gone wrong and how it could be corrected. Then, they set on with even more passion to retry. Entrepreneurs are leaders. An entrepreneur leads by example and for customers he demonstrates a code of ethics which are qualities of a leader.

### **2. How can you say that 'innovation' sets the entrepreneurs apart from businessmen?**

Creativity is a basic skill of an entrepreneur. Creativity brings innovation. Entrepreneurs look around and observe the problems prevailing in the society. Then they think of a viable and innovative solution for that problem. The solution is built up in a planned way and sold to the target customers. The funds are arranged by loans or investors. In this approach of functioning entrepreneurs are different from businessmen. Businesses are launched with investments and creating a product which could be in demand and manufactured by others also. Business do not opt for innovations necessarily.

### **3. List the functions of an entrepreneur.**

Management, sales and promotion, Finance and commerce.

### **4. Discuss in brief any 3 major functions of entrepreneur.**

Management: Predicting, planning, organising, coordinating and controlling the team, functions and interactions.

Sales and Promotion: It influences the processes of bringing in revenues and developing business relations. Addressing the customer segment and promoting the innovative product, devising promotional strategy and activities are one of the prime concerns of an entrepreneur.

Finance and Commerce: Identifying sources of funding and getting prospective investors. Commercial functions include looking into production and manufacturing process or the processes related to service delivery. Involving into financial transactions, analysing the financial figures and plan ahead.



## **5. How does entrepreneurship influence society and nation's growth?**

By their nature and motivation entrepreneurs are job creators. This kind of job creation by new businesses is very rewarding for nation's economy as it addresses problem of unemployment up to some extent.

Entrepreneurs set up new businesses and industrial units in less developed and backward areas. The growth of industries and business in these areas leads to infrastructure improvements like better roads and rail links, stable electricity and water supply, schools and other public and private services. Entrepreneurs play a key role in increasing the standard of living in a community. They develop and adopt innovations leading to improved quality of life of their employees, customers, and other stakeholders in the community. Entrepreneurs make honest money with great struggle and pay for taxes and public services thereby contributing and returning to the economy. Many of them take green initiatives for environment and contribute to the charities for social causes.

## **6. List any 4 major myths about entrepreneurship.**

1. Entrepreneurship is easy to do.
2. You have more freedom in entrepreneurship.
3. You need to create an entirely new product or service to sell.
4. Lot of funding is required to start the business.

## **7. Discuss about any 3 myths related to entrepreneurship.**

**Myth:** Entrepreneurship is easy to do

**Fact:** Conceiving an innovative service or product is challenging in itself. Then convincing people of your idea and mobilising funds also needs a lot of efforts. At every step there are new kind of challenges.

**Myth:** You have more freedom in entrepreneurship

**Fact:** An entrepreneur does not have the time-bound schedule. They are actively involved in all processes of their venture so there is no time-bound schedule for them. They have luxury of flexibility but idea of freedom is a big myth.

**Myth:** You need to create an entirely new product or service to sell.

**Fact:** Entrepreneurs do the things differently or innovatively. As an entrepreneur if you have a new product to offer, it is good but most start-ups have found innovative and creative ways in offering the same products and services. This is called disruption. Paytm, Uber, Ola, Netflix, Savn, Olx etc. are disruptions.

## **8. Write a brief note on how entrepreneurship can be a good career option.**

Entrepreneurship is a vast field providing several opportunities and choices to make from. You can begin your own start-up with an innovative idea or you can associate with an existing start-up and contribute to its growth.

As a career it is suitable for people who work independently. They are passionate and ambitious. They believe in their ability to generate wealth for self and opportunities to earn and grow for others.

Today various short-term and fulltime entrepreneurship courses are available which can be pursued to prepare before actually starting with a start-up. Universities and private management institutes provide a range of courses to choose from. These courses prepare you with necessary skills and knowledge required to become an entrepreneur.

Many business follow up franchising framework to grow their business. Advantages of taking a franchisee of a business that you save a lot of time and effort in establishing the business. As a franchisee you get a ready setup.

Instead of thinking and deploying a new idea, an existing business can be bought which has growth potential in future and then innovations can be added to it to give it a new shape.

## **Unit 1e: Green Skills**

### **SESSION: Understanding Sustainable Development**

#### **Exercise**

**1. Define the term sustainable development.**

Sustainable development means the economic development that is achieved without harming and depleting natural resources. Sustainability is development that takes care of the needs of the present while being concerned about future generations, balancing between economic growth, care for the environment and social well-being.

**2. What are the 3 fundamental components or pillars of sustainable development?**

The three fundamental components to sustainable development are Economic development, Social development and Environmental protection. Economic development is about providing incentives for businesses and other organizations to adhere to sustainability guidelines. Social development is about awareness and protection of the health of people from pollution and other harmful activities of business. Environmental protection is the need to protect the environment.

**3. What are the 4 Ps of sustainable development? Explain them briefly.**

Sustainable development encompasses 4 Ps: People who represent the socio-cultural issues. Planet which represents the environmental issues. Profit that represents the economic issues. Policy which refers to visionary political leadership and implementation of policies needed to make sustainable development a reality. Today, countries are agreeing to the importance of conserving natural resources. Process is slow but has begun. People are adopting to greener ways that will improve their health, farmers are practicing smart agriculture and industries are realizing as to how much they can save through energy efficiency.

**4. What is UN's sustainability development program 2030?**

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development – adopted by world leaders in September 2015 at an historic UN Summit – officially came into force. Eradicating poverty in all its forms and dimensions is an indispensable requirement for sustainable development. There must be promotion of sustainable, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting integrated and sustainable management of natural resources and ecosystems.

**5. Go to <https://www.un.org/sustainabledevelopment/sustainable-development-goals/> and read more about UN's SDGs.**

To be done by students practically.

## **SESSION 2: Importance of Sustainable Development**

### **Exercise**

#### **1. Why sustainable development is necessary?**

Sustainable development is necessary because it will provide for essential human needs. Sustainable development promises to reduce struggle for basic amenities by growing population.

It addresses agricultural requirement. Sustainable development focuses on sustainable agricultural methods such as effective seeding techniques and crop rotation to promote high yields while maintaining the integrity of the soil, which produces food for a large population.

Climate change can be mitigated by sustainable development practices. Renewable energy sources like solar energy and nuclear energy are the better options.

Sustainable development practices have the ability to create more financially sustainable economies through renewable forms of energy.

Sustainable development practices encourage the use of renewable energy resources, and organic farming practices that are environment friendly.

#### **2. Discuss some examples of sustainable development.**

India as a responsible country has taken some environmental friendly initiatives as below:

1. India earlier followed Kyoto protocol to fight climate changes and signed Paris agreement focusing on bringing down global temperatures.
2. India is second highest in the world, after China, in running 1500+ projects in energy efficiency, fuel switching and solid waste management.
3. Climate change programs focusing on water, agriculture, tourism, transport and forestry etc. are run in 32 states and union territories.
4. India levies carbon tax on industrial coal usage. Clean energy initiatives and research is funded under National Clean Energy fund created by this tax.
5. A huge fund has been provisioned to take care of the areas which are vulnerable to the adverse effects of climate and environmental changes.

## **SESSION 3: Sustainable Development: Challenges and Solutions**

### **Exercise**

#### **1. List some common challenges in sustainable development.**

Climate changes, energy usage, border conflicts, hunger and malnutrition, corruption, rapid urbanisation, lack of vision and policy.

#### **2. Discuss briefly why sustainable development is a challenge for developing countries?**

Achieving sustainable development requires global as well as local actions.

Global warming, floods, droughts, extreme winters and summers in many parts of the world create a barrier in achieving goals associated with sustainable development. Hunger and malnutrition in many countries is on priority than sustainable development.

War and border conflicts among countries shift the focus away from the priority of sustainable development. To accommodate the growing population due to decreased death rates, more and more agricultural lands and forests are converted into urban areas and cities.

Use of fossil fuel and coal needs to be minimised.

Many countries struggling with their economical crises find it difficult to mobilise funds for sustainable development. Corruption is the biggest impediment in the way to achieve sustainable

development. Businesses and industries, for their vested interests, resort to every unfair mean to carry on with their profit programs.

Certain small, underdeveloped countries do not know how to approach towards gaining sustainable development. This gap in the vision delays the development process and more damage is done meanwhile.

### **3. What are the ways to overcome the challenges in the way of sustainable development?**

Integration of economical, social and ecological dimensions brings in sustainable development. Let us look at the ways to overcome the challenges in sustainable development.

1. A stable, dedicated and fair government is a must for paving the ground for sustainable development programs.
2. Entrepreneurs working for the betterment of society and coming up with innovative ideas should be promoted and supported.
3. Equal opportunities for employment.
4. Renewable energy consumption.
5. Control of environmental abuse. Strict and stringent laws and their strict implementation against poaching, illegal mining, exploitation of forests and rivers, oil spillage in oceans and harvest stubble burning etc.
6. Community mobilisation through awareness programs using mass communication.
7. Reforms in education sector.
8. Eradicating and controlling diseases and malnutrition.
9. Countries like Singapore, Sweden, Netherlands and South Korea have done remarkable innovations in sustainable development. Their achievements can be studied and adopted suitably to achieve the same success.
10. Gender equality and poor women upliftment.

### **4. What are some initiatives by India towards sustainable development in the country?**

India as a responsible country has taken some environmental friendly initiatives as below:

1. India earlier followed Kyoto protocol to fight climate changes and signed Paris agreement focusing on bringing down global temperatures.
2. India is second highest in the world, after China, in running 1500+ projects in energy efficiency, fuel switching and solid waste management.
3. Climate change programs focusing on water, agriculture, tourism, transport and forestry etc. are run in 32 states and union territories.
4. India levies carbon tax on industrial coal usage. Clean energy initiatives and research is funded under National Clean Energy fund created by this tax.
5. A huge fund has been provisioned to take care of the areas which are vulnerable to the adverse effects of climate and environmental changes.

## **ASSESSMENT**

### **1. What do you mean by environment?**

Our environment is everything that surrounds us- from the trees, mountains, roads, buildings, things and even people. It is a combination of both natural and human-made elements.

Community of living and non-living organisms living interdependently with each other is called ecosystem. like, Forest, Pond etc. An ecosystem is a dynamic entity with constant interactions occurring among the organisms and with the surroundings.

## **2. Which components is our environment made of?**

Our environment is mainly made of the lithosphere - the hard top layer of the earth, the Hydrosphere - various sources of water and different types of water bodies, the atmosphere - the thin layer of air that surrounds the earth and the biosphere that includes all life.

## **3. What is Ecosystem?**

Community of living and non-living organisms living interdependently with each other is called ecosystem. like, Forest, Pond etc. An ecosystem is a dynamic entity with constant interactions occurring among the organisms and with the surroundings.

## **4. Give an example of an ecosystem and briefly explain it.**

An ecosystem is a dynamic entity with constant interactions occurring among the organisms and with the surroundings. In a garden various plants, insects like bees and butterflies, microorganisms in soil and air together constitute the ecosystem of the garden.

## **5. List any 5 disastrous effects on environment caused by human activities.**

Pollution, deforestation, global warming, climate change, rapid urbanisation.

## **6. What is the importance of green economy in the modern world?**

The Green Economy is an alternative vision for growth and development and sustainable development. Green Economy can promote safer economic, environmental and social well-being. Green economy addresses low carbon emissions, efficient use of resources, and social benefits. Green economy improves social well-being, equity and reduces environmental risks. It is a viable alternative to today's economic structures, which encourage waste and threats to the environment. The concept of the green economy is emerging as a priority for government for sustainable and environment-friendly growth.

## **7. What is sustainable development? How is it different from traditional way of development?**

Sustainable development means the economic development that is achieved without harming and depleting natural resources. Traditional ways of development generally are not concerned about future generations, balancing between economic growth, care for the environment and social well-being.

## **8. Describe the 3 fundamental components or pillars on which sustainable development is based.**

The three fundamental components to sustainable development are Economic development, Social development and Environmental protection. Economic development is about providing incentives for businesses and other organizations to adhere to sustainability guidelines. Social development is about awareness and protection of the health of people from pollution and other harmful activities of business. Environmental protection is the need to protect the environment, whether the concept of 4 Rs (reduce, recycle, recover, and reuse) are being achieved or not.

## **9. What do the 4 Ps represent in sustainable development?**

Sustainable development encompasses 4 Ps: People who represent the socio-cultural issues. Planet which represents the environmental issues. Profit that represents the economic issues. Policy which refers to visionary political leadership and implementation of policies needed to make sustainable development a reality. Today, countries are agreeing to the importance of conserving natural resources. Process is slow but has begun. People are adopting to greener ways that will improve their

health, farmers are practicing smart agriculture and industries are realizing as to how much they can save through energy efficiency.

**10. Write a note on the 2030 Agenda for Sustainable Development of UN Summit discussing briefly about its 17 sustainable development goals.**

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development – adopted by world leaders in September 2015 at an historic UN Summit – officially came into force. Eradicating poverty in all its forms and dimensions is an indispensable requirement for sustainable development. There must be promotion of sustainable, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting integrated and sustainable management of natural resources and ecosystems.

**11. How is sustainable development beneficial for the economy, society and environment of a nation? Discuss briefly.**

Sustainable development is necessary because it will provide for essential human needs. Sustainable development promises to reduce struggle for basic amenities by growing population. It addresses agricultural requirement. Sustainable development focuses on sustainable agricultural methods such as effective seeding techniques and crop rotation to promote high yields while maintaining the integrity of the soil, which produces food for a large population. Climate change can be mitigated by sustainable development practices. Renewable energy sources like solar energy and nuclear energy are the better options. Sustainable development practices have the ability to create more financially sustainable economies through renewable forms of energy. Sustainable development practices encourage the use of renewable energy resources, and organic farming practices that are environment friendly.

**12. How the problems of climate change, hunger and degrading biodiversity addressed by sustainable development approach?**

Climate change can be mitigated by sustainable development practices which discourage the use of fossil-based sources of fuel. Renewable energy sources like solar energy and nuclear energy are the better options.

Sustainable development practices have the ability to create more financially sustainable economies. Developing countries that cannot access fossil fuels can opt for renewable forms of energy to power their economies. The growing population compels people to struggle for the limited life essentials like food, shelter, and water. Sustainable development can reduce this by renewable and sustainable options.

Life ecosystem is designed in such a way that species depend on one another for survival. Sustainable development practices encourage the use of renewable energy resources, and organic farming practices that are environment friendly.

**13. What are the common modern problems which stand as a challenge in the way of sustainable development?**

Climate changes, energy usage, border conflicts, hunger and malnutrition, corruption, rapid urbanisation, lack of vision and policy.

**14. Suggest a few ways to meet the common challenges of sustainable development.**

A stable, dedicated and fair government is a must for paving the ground for sustainable development programs.

Entrepreneurs working for the betterment of society and coming up with innovative ideas should be promoted and supported.

Equal opportunities for employment.

Renewable energy consumption.

Control of environmental abuse. Strict and stringent laws and their strict implementation against poaching, illegal mining, exploitation of forests and rivers, oil spillage in oceans and harvest stubble burning etc.

Community mobilisation through awareness programs using mass communication.

Reforms in education sector.

Eradicating and controlling diseases and malnutrition.

Countries like Singapore, Sweden, Netherlands and South Korea have done remarkable innovations in sustainable development. Their achievements can be studied and adopted suitably to achieve the same success.

Gender equality and poor women upliftment.

## PART B: Vocational Skills

### Unit 2: Web Applications (Basic)

#### ASSESSMENT

**1. What is the significance of Accessibility options in a computer? How will you open 'Ease of Access Center' in Windows 7?**

Computer Accessibility refers to the user friendliness of a computer system for all, regardless of their disability. This is mainly a software issue. However, when a combination of hardware and software, it enables a person with a disability or impairment to use a computer. It is known as Assistive Technology. There are numerous types of impairment that impact computer usage. These

include:

Cognitive impairments and learning disabilities, such as dyslexia, attention deficit-hyperactivity disorder (ADHD) or autism.

Visual impairment such as low-vision, complete or partial blindness, and color blindness.

Hearing impairment including deafness.

Motor or dexterity impairment such as paralysis, cerebral palsy, or carpal tunnel syndrome and repetitive strain injury.

Steps to launch accessibility options in Windows 7 are as below:

- Click on **Start**.
- Click on **Control Panel**.
- Click the **Ease of Access** link.
- Click **Ease of Access Center** link.

**2. How will you setup the following?**

- a. Mouse Keys
- b. Sticky keys
- c. Filter keys

The steps are

- Click on **Start**.
- Click on **Control Panel**.
- Click the **Ease of Access** link.
- Click **Ease of Access Center** link.

**Turn on Mouse Keys** checkbox to allow the user make use of arrow keys on the numeric keypad to move the keys on screen and Enter key to click. For example, user can press top arrow and left arrow key to move mouse pointer diagonally upwards towards left side.

**Turn on Sticky Keys** checkbox allows user to keep the key active when it is pressed once and when any other key is pressed then it is processed by the computer with the currently active key. For example, if user has pressed Window key on the keyboard then it will remain active. Now, if user clicks only letter E then it will ne interpreted as Windows+E and Windows Explorer will open up.

Once enabled, sticky keys icon will appear in the system tray.

**Turn on Filter Keys** check box, when selected, makes keyboard ignore rapidly repeated or long pressed key to avoid repeated typing of the same key thereby helping people who type with trembling hand.



### 3. How will you setup visual feedbacks to appear on the screen instead of sound?

- Click on **Start**.
- Click on **Control Panel**.
- Click the **Ease of Access** link.
- Click **Ease of Access Center** link.
- Click on **Use text or visual alternatives for sounds** in **Ease of Access Center**.

**Sound Sentry** or **Turn on visual notifications for sounds** option replaces system sounds with visual warnings like flashing caption bar of active window, flashing the active window itself and flash desktop. Select the desired visual warning.

Any sound that reads the screen can be turned into text caption that appear on the screen by checking **Turn on text captions for spoken dialog** checkbox.

### 4. Explain the use of Narrator and Magnifier for a visually challenged person.

**Narrator** allows read aloud of any text on the screen and **Turn on Audio Description** option lets visually impaired person hear descriptions of what is happening in any videos.

**Magnifier** lets user move mouse pointer on the screen and see the objects larger in size. This mode is called **lens mode**. In **docked mode** a portion of the screen can be left magnified and rest of the screen remains normal. This portion can be changed as required. **Full screen mode** magnifies whole screen. Lens size, focus area, zoom level etc. can be set by the user.

### 5. How will you change the size of the mouse cursor and setup the mouse pointer so that it hovers on a window and that window activates.

- Click on **Start**.
- Click on **Control Panel**.
- Click the **Ease of Access** link.
- Click **Ease of Access Center** link.
- Click on **Use text or visual alternatives for sounds** in **Ease of Access Center**.
- In **Ease of Access Center**, click **Make the mouse keys easier to use** link.

Here, you can change the colour and size of mouse pointers. You can turn on mouse keys of numeric keypad. You can set option to activate any window just by bringing mouse pointer over it instead of having to click it.

### 6. Why do we need to network computers together? How a LAN different from MAN?

The purpose of connecting computers to form a network is to share the data, services and various resources.

#### **Advantages of networking**

**Data Sharing:** One of the most important uses of networking is to allow the sharing of data. Users can send text files, spread sheets, documents, presentations, audio files, video files, etc. to other users.

- **Hardware Sharing:** Hardware components such as printers, scanners, etc.

can also be shared. For example, instead of purchasing 10 printers for each user, one printer can be purchased and shared among multiple users thus saving cost.

- **Internet Access Sharing:** You can purchase a single Internet connection and

share it among other computers in a network instead of purchasing multiple Internet connection for each computer. This is very commonly found in Internet café (browsing centres), schools, colleges, companies, etc.

- **Usage of network based applications** such as web browsers, email clients,

chat application, audio & video calling, etc is another advantage.

### **Local Area Network (LAN)**

A Local Area Network (LAN) covers a small geographic area, such as home, office or any building. These are used within smaller geographic range and have limited communication lines. LANs have higher data transfer rate. It is useful for sharing resources like files, printers and other applications. A LAN can be set up using wireless media also.

### **Metropolitan Area Network (MAN)**

A Metropolitan Area Network (MAN) is a large network that usually spans a city, but does not extend the boundaries of the immediate town, city, or metropolitan area. Data transfer rate in Metropolitan Area Network is little slower than the Local Area Network. The distance covered by this kind of network enables a large number of users to communicate with each other in the network. For example, network set up by MTNL in Delhi and Mumbai, cable TV network in a city.

## **7. What is the significance of a browser on WWW?**

Browser is the software application that allows us to visit websites on Internet. The URL of the website is type in the browser's address bar. Once the web site is connected, browser displays its home page from where we can navigate further by clicking on various hyperlinks. Website is a collection of webpages which are displayed by the browser.

## **8. Write short note on types of internet connectivity.**

Some of the commonly used Internet connectivity are:

**Dial-up:** Dial-up Internet access is a form of Internet access that uses the facilities of the public switched telephone network (PSTN) to establish a connection to an Internet service provider (ISP) via telephone lines using a device called MODEM. Dial-up connections are extremely slow.

**DSL:** Digital subscriber line(DSL) provide Internet access by transmitting digital data over wires of a local telephone network. DSL service is delivered along with wired telephone service on the same telephone line. For using a DSL connection, you need a DSL modem and a subscription.

**Cable Internet Access:** Cable Internet Access is a form of broadband Internet access that uses the cable television infrastructure. Cable Internet Access is provided through existing cable TV networks.

**3G:** 3rd Generation is a set of standards used for mobile devices and mobile telecommunication services and networks. High-Speed Downlink Packet Access (HSDPA) is 3G mobile telephony communications protocol that allows higher data transfer speeds and capacity.

**WiMAX:** Worldwide Interoperability for Microwave Access is a wireless communications standard designed to provide mobile broadband connectivity across cities and countries through a variety of devices.

**Wi-Fi:** Wi-Fi is a popular technology that allows an electronic device such as computers or mobile phones to exchange data wirelessly over a network, including high-speed Internet connections. Wi-Fi devices such as personal computer, smartphones, video game console, etc. can connect to a network resource such as Internet through a device called the Wireless Access Point.

## 9. What are the advantages of instant messaging? How will you begin chatting on an online instant chatting website or service?

Instant messaging (IM) is a form of communication over the Internet that offers an instantaneous transmission of text-based messages from sender to receiver. Most instant messaging software include the option for performing file transfers, audio chat, video calling and conferencing, sharing desktops, etc. apart from standard text chat. Instant messaging software is widely used for personal and commercial use. In this session, you will be introduced to the concept of instant messaging, the steps to create an instant messaging account and also work with instant messaging software.

Unlike email, instant messaging happens in real-time and the response from participants can be spontaneous. Some instant messaging software allows users to view messages received when they are not logged on. These are called “Offline Messages”.

To use Google Hangout, login to your Gmail account. You will see your hangout connections on the right hand side as shown here.

To begin conversation follow the steps below:

1. Click on Search button to search and send the chatting request to someone, who is online.
2. Type the name or email address of the person and press Enter key.
3. If the person or email address is found, the name and profile image appear on the left pane and chatting window appears on the right of the window. Here you can start text chatting.

## 10. What is a blog? List some popular blog sites.

A blog is a discussion style site used by non-technical (and technical users) users for creating personal web pages. Blogs are similar to an online personal diary and simple to use.

You can use a blog to convey messages about events, announcements, news, reviews, etc. Blogs are usually managed using a web browser and this requires active internet connection. You can also use offline blog software to create content first and later publish the content when an active internet connection is available.

There are hundreds of websites that offer blog service for free. Some of the popular blogs include:

- [www.WordPress.com](http://www.WordPress.com)
- [www.blogger.com](http://www.blogger.com)
- [www.blog.com](http://www.blog.com)
- [www.weebly.com](http://www.weebly.com)
- [www.blogsome.com](http://www.blogsome.com)

## 11. How will you open, modify and republish your blog post in MS Word?

- Open MS Word 2013
- In **Blog** group under **Blog Post** tab, click on **Open Existing** option.
- In **Open Existing Post** dialog box, your online posts will be listed. Select the desire post and click **OK**.
- Selected post will be opened for editing. Make changes and publish it again.
- Once your blog is ready to publish. Click **Publish** option in **Publish** drop-down in **Blog** group of **Home** tab.

## 12. How will you open, modify and republish your blog post in an offline blog editor?

- Open Qumana by clicking **Start > All Programs > Qumana > Qumana** or by clicking Qumana shortcut on the desktop.
- On first start, mention your blog's address in **Add Blog Wizard** and click **Next**. It will automatically locate your blog.
- Enter login credential of your blog site and click **Next**.
- Blogs on your site will be listed. Select the blog you need to work with and click **Finish**.
- Qumana interface will open up listing your blog posts.

In the list of your blog posts, double click on the one you wish to edit. It will open up in the editor. Make changes in your post in the editor. You can use formatting toolbar. If you have basic knowledge of HTML, you can insert content with HTML using **Insert HTML** button at the top. **Insert Ad** button lets you insert advertisement in your post page. Once changes are done, click on **Save** button to save your post offline on your computer.

To publish changes to your blog site, click on **Update Post** button.

Qumana will take a while and publish the changes to your online post.

## 13. Briefly explain the standard process of an online shopping website.

All online shopping websites follow following standard shopping process:

1. User registers on the website.
2. User searches for products and browses through product catalogues.
3. User selects, reviews and adds the products in online shopping cart.
4. User reviews the cart and finalises the products in the cart.
5. User fills in the shipping address.
6. User fills in the online payment details.
7. User furnishes the payment and checks out.
8. Website acknowledges the user of the payment and products purchased through email and SMS.
9. Finally, products are delivered to the dispatch address.

## 14. How will you book a train ticket from your city to another using IRCTC website? How will you check the booking history of your ticket?

Open the browser and go to IRCTC website: **<https://www.irctc.co.in>**

On website's home page, fill in the details of your journey like cities to travel from and to, date of journey and preferred travel class. Then, click on **Find trains**.

You can login into IRCTC account which you may have created earlier. Registering on IRCTC is the same standard process as on any other public services website. To login, click **Login** option in the drop-down menu on top right corner.

The trains will be listed. Click on **Check Availability** to check the seats available. You can change the travel class to check seats for other classes.

Once you decide to book a seat, click on **Book Now**.

On the next screen, fill the passenger details as shown here. If you have passenger details already saved in the website then you can pick up details by clicking **My Saved Passenger(s) List**. To add more passenger details, click on **Add Passenger**.

Scroll down, fill in mobile number and captcha details and click **Continue Booking**. Review booking page will appear. When sure, click on **Continue Booking**.

On payments page, select the suitable payment option for example Netbanking, select the Bank and click on **Make Payment**.

This will take to the payment portal. Furnish the payment and your ticket will be displayed to download and print.

### **Viewing Transactions**

In the main menu, click on **MY ACCOUNT** and hover mouse pointer on **My Transactions**. You will see choices namely Booked Ticket History, Failed Transaction History, Ticket Cancellation History. You can select the desired choice.

### **15. How will you setup privacy options in any browser?**

To clear personal data from a web browser such as Google Chrome, launch the browser.

Click **Tools** Menu > Settings

You can make changes in Privacy settings by scrolling down and clicking **Advanced** option and apply privacy settings according to your preferences.

### **16. What are the best practices about internet security?**

- Use strong passwords
- Regular Data Backup
- Encrypt Data
- Secure your username and password
- Do not share personal data
- Secure transactions
- Use antivirus and antispyware software
- Clear browser cookies frequently
- Install firewalls
- Never install software from unknown sources
- Remove unwanted or unknown software applications

### **17. How will you clear your browsing history and cookies?**

To clear personal data from a web browser such as Google Chrome, launch the browser.

Click **Tools** Menu > **More Tools** > **Clear Browsing data...**

The next window will show various options to clear Browsing History, Cookies and Cache.

## Unit 3: Word Processing (Intermediate)

### Assessment

**1. How will you create a landscape oriented awareness poster water pollution. Poster size should be 15' X 20'. All margins zero with line spacing 2.**

- Layout tab > Orientation drop-down > Landscape option
- Layout tab > Size drop-down > More Paper sizes... option > Specify dimensions and okay the dialog box.
- Layout tab > Margins dro-down > Custom margins... option > Specify all 0 margins.
- Home tab > Paragraph group > Line and Paragraph Spacing > Select 2.0.

**2. What do you mean by odd page and even page header? How will you insert them in a multipage document?**

Odd page headers appear on all odd numbered pages and even headers on even numbered pages of the document.

While working with headers, **Design** tab shows header settings. We can have alternate different headers for odd and even pages using **Different Odd and Even Pages** option.

**3. How is footer different from header? How will you prevent footer from appearing on the first page of the document?**

Information in footer appears on the bottom of each page in the document.

While working with footers, **Design** tab shows footer settings. You can use **Different First Page** option to keep a different footer from rest of the document for first page.

**4. What is the significance of various document themes and design?**

Design tab provides various themes, document formats, colours, fonts, effects, and page background formatting options.

Themes are unique set of colours, fonts and effects to give a consistent, professional look to our document instantly. Themes are available online on Microsoft website also.

**5. List any 5 template names in MS Word. How templates save time and effort in designing a document? Explain with an example.**

MS Word provides a rich library of templates like resume, business letters, newsletters, calendar etc.

A template is a pre-designed and pre-formatted document which can be used to fill in the content as you need. Template saves time and effort that otherwise goes in designing and formatting the document manually. Template can be designed and saved to by applied on various documents we create in future.

**6. How do page and section breaks help in managing the document and its content? Explain with an example.**

When you are creating a document involving several pages in which the content is divided across various parts like parts, chapters, sub topics etc. then it is highly recommended that the document should be organised with proper Page breaks and Section breaks. Page break puts the content after the cursor to the next page neatly.

Section breaks allow you to organise your content in an easily manageable manner. Sections breaks can be inserted in a document as new page breaks, on the same page, continuously from the next line etc.

Dividing a document into sections organises the document into easily manageable, logical parts whose page setting and other related settings can be done differently from rest of the document. For instance, you need to display content of three pages into multiple column while rest of the document is single columned then section break is helpful. A section can be multi-columned leaving out other sections.

Headers and footers can be set differently for each section in the document. For example, if you are drafting a book then each section can represent a separate chapter with its header as chapter heading on each page of that section.

You can also keep pages of a section into specific orientation (landscape or portrait). For example, in your document you need to display bulk tabular data in landscape the you can keep the pages containing that data into a section and then select landscape orientation for that section.

## 7. Describe character formatting in terms of fonts.

**Font** group of **Home** tab provides various options to apply a wide variety of character formatting on the text.

Character formatting includes the following:

- **Font Face:** It provides the list of all the font faces installed on your computer like impact, arial etc.
- **Font Size:** It allows selecting or specifying desired font size.
- **Grow Font:** This button increases font size of the selected text after each click by a particular point size.
- **Shrink Font:** This button decreases font size of the selected text after each click by a particular point size.
- **Strikethrough:** It makes the text striken through ~~like this~~.
- **Subscript and Superscript:** These options place the text slightly below the base line and above the normal top line of the text respectively. Like this: H<sub>2</sub>O, a<sup>2</sup>
- **Clear Formatting:** It clears the applied formatting from the selected text.
- **Text Highlight Colour:** It provides a set of colours to be displayed as background of the selected text like this.
- **Font Colour:** Use this option to change the colour of the selected text.
- **Text Effects and Typography:** This provides choices to apply some special effects to the selected text.
- **Change Case:** This helps us to display the text in various cases described as below:
  - **Sentence Case:** On selecting this option from the dropdown list, the first character in the first word of the selected sentence will be converted to Capital Letter (Uppercase).
  - **Lowercase:** On selecting this option from the dropdown list, the selected text will be converted to Small Letters (Lowercase).
  - **UPPERCASE:** On selecting this option from the dropdown list, the selected text will be converted to Capital Letters (UPPERCASE).
  - **Capitalize Each Word:** On selecting this option from the dropdown list, the first character in all the words of the selected sentence will be converted to Capital Letter (Uppercase).
  - **tOGGLE cASE:** On selecting this option from the dropdown list, the small letters in the selected text will be converted into capital letters and capital letters will be converted into small letters.

## 8. What do you mean by text case? Describe various text cases provided by MS Word.

**Text Case:** This helps us to display the text in various cases described as below:

- **Sentence Case:** On selecting this option from the dropdown list, the first character in the first word of the selected sentence will be converted to Capital Letter (Uppercase).
- **Lowercase:** On selecting this option from the dropdown list, the selected text will be converted to Small Letters (Lowercase).
- **UPPERCASE:** On selecting this option from the dropdown list, the selected text will be converted to Capital Letters (UPPERCASE).
- **Capitalize Each Word:** On selecting this option from the dropdown list, the first character in all the words of the selected sentence will be converted to Capital Letter (Uppercase).

- **TOGGLE cASE:** On selecting this option from the dropdown list, the small letters in the selected text will be converted into capital letters and capital letters will be converted into small letters.

**9. How are cliparts different from pictures? How will you insert and rotate a picture by 90 degrees left in the document?**

Clipart is a pre-loaded group of illustrations, photographs, videos and audios that can be inserted into a document.

In MS Word 2013, Clipart is not stored on your computer. It is available online.

Pictures are images clicked by camera and saved in computer, images created by any software or downloaded from internet.

To rotate a picture, select the picture > Format tab > Arrange group > Rotate objects drop-down > Rotate left 90°

**10. Describe any 3 text wrapping options available in MS Word for pictures.**

- Square: to wrap text around the border of the image.
- Tight: to wrap text tightly around the image. This is the most useful option for irregular shaped images.
- Through: to fill in the blank space around the image.

**11. What is the advantage of embedding any file into a document? Write the steps to insert a PDF document in an MS Word document.**

Object embedding refers to a link embedded in the document itself which functions as a link or trigger to the actual file in another application. Clicking on this link triggers or launches the application in which that embedded document should be opened. For example, a PDF file can be embedded in an MS Word document. It will be embedded as a small icon clicking on which will launch the PDF viewer program and the embedded document will be opened in that application.

To insert an PDF file:

Insert tab > Click on Object option in Text group. Object dialog box will appear.

- Click on **Create from File** tab.
- Click on **Browse...** , locate and select the desired pdf file.
- Click on **OK** button.

File will be seen embedded as an icon in your document at current cursor position.

**12. How will you insert an object and apply fill and outline colour in it?**

1. Select the shape > Format tab > Shape styles group > Shape Fill > Select desired colour.
2. Select the shape > Format tab > Shape styles group > Shape Outline > Select desired outline colour and width etc..

**13. Write the steps to insert copyright symbol followed by your name in the footer of the first page of a multipage document.**

Go to first page of the document. Double click in footer area to activate it. Type your name. Bring cursor before the name. On the Insert tab, in Symbols group, click on the Symbol button, a list of symbols appears. Double click on copyright symbol.

In header-footer Design settings, select the option Different First Page.



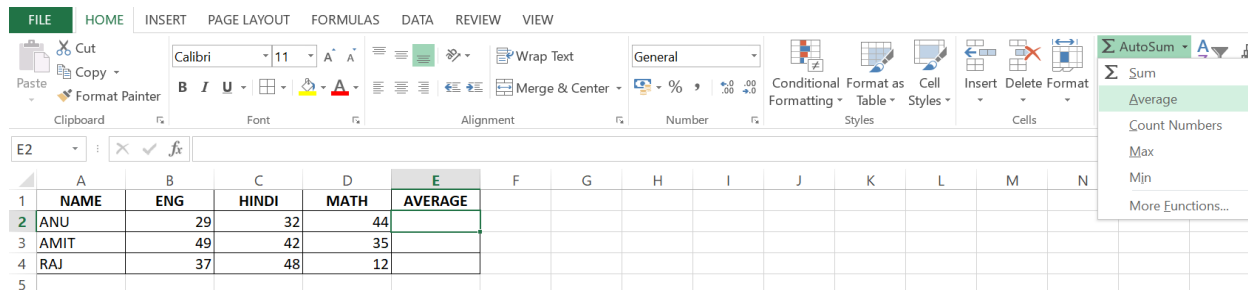
## Unit 4: Spreadsheet (Intermediate)

### ASSESSMENT

**1. What is the advantage of Autosum feature? Explain with an example.**

Autosum is a very powerful feature of MS Excel. As the name suggests, calculation on the numeric values in a data set is performed automatically. Autosum identifies the numeric values in the data set, selects them horizontally or vertically and applies the selected function on the selected values.

For example, consider the following values:



Here, in cell E2, the average of Anu’s performance is being calculated using **Autosum** option in **Editing** group of **Home** tab.

	A	B	C	D	E	F	G
1	NAME	ENG	HINDI	MATH	AVERAGE		
2	ANU	29	32	44	=AVERAGE(B2:D2)		
3	AMIT	49	42	35	AVERAGE(number1, [number2], ...)		
4	RAJ	37	48	12			
5							

Cells containing Anu’s marks are selected and average() is inserted in cell E2. User must press enter here.

	A	B	C	D	E
1	NAME	ENG	HINDI	MATH	AVERAGE
2	ANU	29	32	44	35
3	AMIT	49	42	35	
4	RAJ	37	48	12	

**2. What is the advantage of conditional formatting? How will you change a conditional formatting rule?**

Conditional formatting allows cells change their appearance (fill color, border colour, font styles *but not font size*, fill patterns etc.) depending on the value stored in them. For example, if a cell contains values less than passing marks then its fill colour would turn red otherwise green.

Conditional formatting is defining by applying formatting rules on the selected cells based on certain conditions. Like, cell value less than 50 then fill colour of cell becomes red.

An example:

1. Select the desired cells
2. In **Styles** group of **Home** tab, click on **Conditional Formatting** drop-down and select **Highlight Cells Rules > Less Than...**

- a. In the **Less Than** dialog box, enter 100 and select **Custom Format...** from **with** drop-down.
- b. In the **Format Cells** dialog box, go to **Fill** tab.
- c. Select the desired colour (here, red) and OK the dialog boxes.

**3. Write the steps to delete a conditional formatting rule.**

1. In **Styles** group of **Home** tab, click on **Conditional Formatting** drop-down and select **Manage Rules...**
2. In the **Conditional Formatting Rules Manager** dialog box, select the desired rule and click on **Delete Rule** button.

**4. How will you apply rules to cell A1 so that if you type any colour name from the VIBGYOR series, the cell's fill color changes to that colour?**

- Go to cell A1
- In **Styles** group of **Home** tab, click on **Conditional Formatting** drop-down and select **Highlight Cells Rules > Text that contains**
- In the dialog box, type VIOLET and in the format drop-down select custom color. In **Format cells** dialog box, got to **Fill** tab and select **Violet** colour. Ok the dialog boxes.
- Repeat the above steps for colours **INDIGO, BLUE, GREEN, YELLOW, ORANGE, RED** and set corresponding fill colour respectively.

**5. Describe the 3 freezing pane options with a small example.**

**Freeze Panes** drop-down list in **Window** group of **View** tab allows freezing rows and columns in following ways:

- **Freeze Panes:** Freezes rows and columns just before the active cell. Rest of the sheet scrolls. For example, if active cell is C3 then columns A and B will freeze as well as rows 1 and 2 will freeze. This option turns into **Unfreeze Panes** if user selects it.
- **Freeze Top Row:** Keeps row number 1 visible when rest of the sheet scrolls vertically.
- **Freeze First Column:** Keeps Column A visible when rest of the sheet scrolls horizontally.

**6. Why do we need to freeze columns and rows in a spreadsheet?**

When we work with sheets containing bulk data, while scrolling the sheets, we need to view the data which has been scrolled off the screen. MS Excel allows freezing the columns and rows to prevent them from scrolling. This way, required rows and columns remain on screen while remaining rows and columns scroll.

**7. Write the steps to insert page break after 20<sup>th</sup> row only.**

1. Select row 20.
2. Click on **Breaks** drop-down in **Page Setup** group of **Page Layout** tab

**8. Write the steps to insert page break after column D only.**

1. Select column D.
2. Click on **Breaks** drop-down in **Page Setup** group of **Page Layout** tab

**9. Write the steps to insert page break after 10<sup>th</sup> row and Column C.**

1. Go to cell C10.
2. Click on **Breaks** drop-down in **Page Setup** group of **Page Layout** tab

## 10. How will you set the page margins, size and orientation of a page in Excel.

### Setting using Page Setup Dialog Box

This dialog box provides following tabs:

**Page:** Allows changing page orientation, adjusting percentage of data on one page called scaling, paper size and print quality etc.

**Margin:** Setup all four page margins and two header margins.

## 11. Write the steps to repeat the contents of Row 1 on each page of the printout.

File tab > Print option > Page Setup link > In the dialog box, go to Sheet tab > In rows to repeat at top, click and select first row in the worksheet > Okay the dialog box > Click Print.

## 12. What is the basic difference between Page Layout view and Page Break Preview view?

**Page Layout View:** You can select the Page Layout view in order to quickly fine tune a worksheet that contains many charts or huge amounts of data and achieve professional looking results.

**Page Break Preview:** This option is similar to the Page Layout option except you can set the area that is to be set as a page after inserting page break.

## 13. What do you mean by multiple windows of a worksheet displayed in Cascade arrangement?

In Cascade arrangement windows are arranged in a way that their title bars are visible. User can click on the to switch to that window.

## 14. What is the advantage of defining range names? Explain with an example.

In MS Excel, you can select the cells and identify them by some relevant name. For example, all the data related to the sales made by Northern region can be selected and given the name *North\_Sale* or in a worksheet containing marks of students, the marks of students in grade 9 can be identified by a unique name.

The advantage of defining names for the selected cells is that these names can be used in various calculations instead of having to remember and select the cells every time.

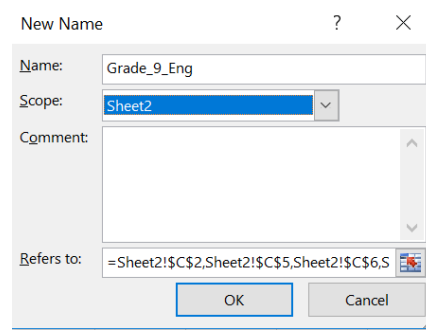
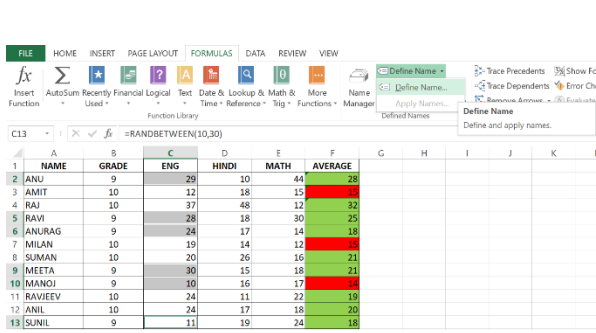
The steps to define name to a range of cells are as below:

Consider the following data set:

	A	B	C	D	E	F
1	NAME	GRADE	ENG	HINDI	MATH	AVERAGE
2	ANU	9	29	10	44	28
3	AMIT	10	12	18	15	15
4	RAJ	10	37	48	12	32
5	RAVI	9	28	18	30	25
6	ANURAG	9	24	17	14	18
7	MILAN	10	19	14	12	15
8	SUMAN	10	20	26	16	21
9	MEETA	9	30	15	18	21
10	MANOJ	9	10	16	17	14
11	RAVJEEV	10	24	11	22	19
12	ANIL	10	24	17	18	20
13	SUNIL	9	11	19	24	18

Notice the Grade column. It contains the grade or class in which students are.

- Let us select the cells containing English marks of students in Grade 9 (by using Ctrl key for scattered selection of cells).
- Then, select **Define Name...** option from **Define Name** drop-down in **Defined Names** group of **Formulas** tab.
- In the **New Name** dialog box, specify a relevant name of the range (here, *Grade\_9\_Eng*), select the scope whether the name is unique within selected worksheet or entire workbook. Dialog box shows the range of cells selected earlier.
- Click on **OK**.



Now, the given range name (here, Grade\_9\_Eng) can be used in calculations. For example, to calculate average English marks of only grade 9 students we can use Average() like this: **=AVERAGE(Grade\_9\_Eng)**.

NAME	GRADE	ENG	HINDI	MATH	AVERAGE
ANU	9	29	10	44	28
AMIT	10	12	18	15	15
RAJ	10	37	48	12	32
RAVI	9	11	20	25	19
ANURAG	9	13	24	10	16
MILAN	10	28	21	10	20
SUMAN	10	25	11	26	21
MEETA	9	20	15	19	18
MANOJ	9	13	22	28	21
RAVJEEV	10	18	13	26	19
ANIL	10	19	20	28	22
SUNIL	9	29	12	16	19

Grade 9 Average Performance:					<b>23.83</b>
------------------------------	--	--	--	--	--------------

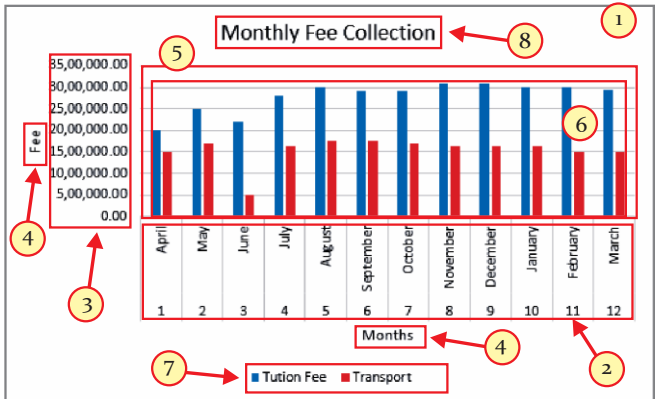
**15. Describe any 2 types of charts and their use.**  
**Column Chart**

This chart displays the data in the form of vertical columns. It typically displays categories along the horizontal axis and values along the vertical axis. It allows to compare a single category of data between two or more items.

**Line Chart**

In this type of chart, data is plotted in a form of line with connecting dots. It displays categories along the horizontal axis and values along the vertical axis. It shows continuous data/data trends over a period of time.

**16. Label the following parts of a chart:**



### 17. How will you convert an area chart into a column chart?

- Select the area chart. The Chart Tools appear on Ribbon.
- Click on Design tab.
- In Type group, click on Change Chart Type button. The Change Chart Type dialog box appears.
- In All Charts tab, select column chart type in left pane and its sub-type in right pane.
- Click on OK button.

### 18. Write the steps to sort text type of data in descending order of alphabets.

1. Select the required range of cells.
2. On Home tab, in Editing group, click on Sort and Filter.
3. Click on Sort A to Z or Sort Z to A option.
4. The Sort Warning dialog box appears. Select Expand the selection option and click on Sort button.

### 19. A sheet contains salaries of two department: SALES and TECH. Write the steps to sort the data in ascending order of departments and under them salaries sorted in descending order.

- Click on any cell in the table/range. For example, A19.
- On Home tab, in Editing group, click on Sort and Filter.
- Click on Custom Sort option.
- The entire dataset is selected and the Sort dialog box appears.
- In the Sort dialog box, default, My data has headers checkbox is selected.
- Select the Department Column, Sort On Values.
- Click on Add Level button
- Select the Salary Column, Sort On Values.
- Click on OK button.

### 20. Explain the syntax of referring to cells in different worksheets of the same workbook and cells in different workbooks.

Same workbook, different sheets:            Sheet\_Name!Cell\_Address

Sheets of Different workbooks:            [Workbook\_Name]Sheet\_Name!Cell\_Address

### 21. List the advantages of sharing the sheet. How will you share a sheet with other users for editing?

Sharing of worksheet has following major advantages:

- Faster data entry.
- Real-time data updates
- Decreased data redundancy (multiple copies of same data set)
- Collaborative work environment

For any worksheet to be shared, first ensure that it is saved on a shared drive where it can be accessed by multiple users then do the following:

- Open the desired worksheet.
- Go to **Review** tab.
- Click on **Share Workbook** option in **Changes** group.
- In the **Share Workbook** dialog box, consider **Editing** tab.

- Check **Allow changes by more than one user...** checkbox.
- Switch to **Advanced** tab of the dialog box.
- Here, specify history for tracking changes, when the updates should be saved, how multiuser conflict should be resolved and if users must have access to print and data filter features.
- Finally, click on **OK**.

## Unit 5: Digital Presentation (Intermediate)

### ASSESSMENT

#### 1. Why do we need to insert videos and audio in our presentation?

Audio and video enrich the content of the presentation. They work as audio visual aid to convey the idea in an effective way. Audience engage in a better way with the presentation using audio and video since it makes the presentation interesting also.

#### 2. How will you setup your video to run continuously and automatically as long as slide is displayed on the screen.

Select the video. In Playback tab, select Automatically from Start drop-down and Loop until stopped check box.

#### 3. Write the steps to record a narration into a slide.

1. Select the slide on which you want to add the audio file and click on Insert tab.
2. In Media group, click on Audio button and select **Recording Audio...** option. **Record Sound** dialog box will pop up.
3. Click on the button with red dot to begin recording.
4. Click on the button with blue square to stop recording.
5. Click **OK**.

#### 4. Your friend has a music clip in a CD. Write the steps to insert that clip in your presentation.

1. Go to the slide on which you want to add the audio file and click on Insert tab.
2. In Media group, click on Audio button and select Audio on My PC option. The Insert Audio dialog box appears.
3. Select the CD Drive. Locate the audio file and click on Insert button.

**5. What are the two ways to create a table of 3 columns and 5 rows?**

1. Click on **Insert** tab.
2. In **Tables** group, click on **Table** button
3. Click on **Insert Table** option from the list.
4. Enter the 3 for columns and 5 for rows and click on **OK** button.

OR

Select 3 columns and 5 rows in the drop-down grid and left click.

**6. Write the steps to apply some styles with Header row and First Column style in such a way that rows are banded with alternating design.**

Select the table > In Design tab > Table Style Options group > select Header Row check box, First Column checkbox and Banded Rows checkbox.

**7. Write the steps to display the text in the very center of the cell with all cell margins set to zero.**

Go to desired cell > Home tab > Alignment group > select Center option and Middle option. Set the width of the cell with mouse to the minimum possible.

**8. Write the steps to insert a chart and how will you convert it into another chart?**

On Insert tab, in Illustrations group, click on Chart button.

The Insert Chart dialog appears.

Select the chart type in the left pane and the sub-type of the select chart in the right pane. Click on OK button.

The chart is displayed with a data sheet (in MS Excel) that contains the default data.

Change the default data.

**9. How will you insert a chart in a slide that is linked with the data stored in a spreadsheet?**

Chart created in an Excel sheet can be copy-pasted in Powerpoint Slide.

When we paste the data in Powerpoint slide, it is linked with the data in Excel sheet. Any changes in the data in Excel sheet will reflect in the chart when we open the slide next.

**10. What is the significance of slide transition? Describe briefly the 3 categories of transition with examples.**

Slide transitions enhance the presentation visually to keep the interest and curiosity of the audience. Judicious use of transitions provides a professional touch to the presentation.

There are three categories of transitions:

**1. Subtle:** These are the most basic types of transitions. They use simple animations to move between slides.

**2. Exciting:** These are complex animations to transition between slides. Adding moderate transitions can give a nice touch to the transition between important slides.

**3. Dynamic Content:** If you're transitioning between two slides that use similar slide layouts, dynamic transitions will move only the placeholders, not the slides themselves. When used correctly, dynamic transitions can help unify your slides and add a further level of polish to the presentation.

**11. How will you ensure that a particular transition effect works for all the slides for 3 seconds duration each?**

In Transitions tab, select Apply to all checkbox and set duration to 3 seconds.

## **12. How is sound added to a transition?**

In Transitions tab, click on Sound drop-down and choose the desired sound effect or click Other sound... option to insert any sound saved on the PC.

## **13. What is the significance of animation? Describe briefly the 3 categories of animation with examples.**

Animation is one of the chief ingredients of electronic presentations. An animation makes the presentation effective, attractive and professional looking.

There are different types of animation effects:

1. Entrance Animation Effect: It determines the manner in which an object enters onto the slide.
2. Emphasis Animation Effect: It does something to draw attention to an object. For example, the object can become larger.
3. Exit Animation Effect: It determines the manner in which an object leaves a slide.
4. Motion Paths Animation: It determines how an object moves around a slide.

## **14. How will you add multiple animations to a single object?**

The steps to add more animation to an object are:

1. Select the object.
2. On Animations tab, in Advanced Animation group, click on the Add Animation button and select the desired animation effect.

## **15. How is motion path different from general animation effects?**

Motion path animation allows defining a path along which an animated object moves while other animations are visual effects applied to the objects.

## **16. What is the advantage of grouping the objects together? How will you ungroup a set of already grouped objects?**

Grouping can help when you want to move, rotate or resize multiple objects in a presentation.

To ungroup the objects, select the object, go to **Format** tab, in **Arrange** group, select **Group** drop-down and select **Ungroup** option.

## **17. How do you use the speaker notes while making a presentation in front of audiences?**

While the regular presentation slides are shown on the main screen for the audience, the view on your computer screen is slightly different – you can not only see the current slide but also the text notes and other key points that should be discussed with that slide. To do so, open the presentation file using your presentation software, go to the **SlideShow** tab and check the option **Use Presenter View** in **Monitors** group.

You can print these notes out, accompanied by a thumbnail version of the appropriate slide, to keep as a handy reference to use when you are making your oral presentation. This can help you to communicate specific points related to each slide and make the presentation effective for the audience.

## **18. Write a note on the advantages of reviewing a presentation.**

Before signing off the presentation as final, review it thoroughly for two aspects: i. Content and ii. Spellings and Grammar. Spot and correct the errors. It is good if someone else proofreads and reviews your presentation. By reviewing you will be able to identify irrelevant points and unnecessary content. Review is like a reflection on what you are going to deliver so spelling and grammatical errors will be easily seen and removed.

Review your presentation for the following:

- a. Concise and crisp sentences (not detailed paragraph).



- b. Sequence of slides is okay or not.
- c. Layout of text, images and other objects on each slide looks fine to the eyes.
- d. Font, font size and colour is pleasant and looks proper.
- e. Background colours, other colours and overall design looks fine to the eyes.
- f. Slide transitions and animations are not too much and not distracting you from the topic.
- g. Sounds (if any) are not too much and distracting.

**19. Describe briefly any 5 important things we need to consider while reviewing a presentation.**

**Keep the Presentation Concise and Crisp**

Do not cram slides with paragraphs of text. People do not have time to read. They are there to listen to and follow so keep key phrases and main points on the slide as brief pointers. Where ever possible, enhance important points with pictures and figures. Highlight the key points to emphasise them. The points on the slides will be elaborated by the presenter hence there is no reason to overload the slides with a lot of content.

**Keep Judicious Number of Slides.**

Consider the time available for your presentation and the amount of content you are going to present. Keeping concise points on each slide does not mean you can take a large number of slides to accommodate all of them. You would unnecessary need to haste if number of slides is too high. This rush would distract the audiences and they will find it difficult to follow what you are saying. On an average, one slide per minute is suitable in a presentation.

**Suitable Slide Layout**

Presentation software provides a variety of slide layouts to choose according to the content you need to present. If you are talking about facts and figures then a table or a chart would be suitable. For summarised points, bullet lists are best choice. To welcome the audience the first slide with a title and a sub-title is suitable. Yur slides should be easy to follow. Keep important information near the top of the slide.

**Judicial Choice of Fonts.**

Too much fancy and artistic fonts do not make the slide look good. It is like some make-up overdone. Fancy fonts are hard to read from distance. Chose and use consistent fonts throughout the presentation along with good combination of colours and size. Too many colours should be avoided. Decide a colour combination set for your presentation. Also, decide a consistent font-size scheme for titles, sub-titles, points and footnotes etc. Good screen fonts are mostly those without serif like Arial, Tahoma, Verdana, Calibri. Avoid too large or too small size for fonts. Keep minimal use of upper case fonts. Use font styles - bold, italics and underline only to highlight key points.

**Prudent Use of Animations, Transitions and Sounds**

Animation surely engages audiences' attention but its use on every slide creates more of distraction than attraction. Similarly, subtle, soothing slide transitions give your presentation an effective look. Too many sound effects will irritate the audiences. Very spare and choosy use of sound clips is advised only if it is necessary.

**20. What is a kiosk? How will you setup s presentation to be browsed by an individual with no animation working and slides should advance by mouse click no matter if slide timings are present.**

A kiosk is a presentation that runs automatically on its own without the need of any presentation or any intervention. Kiosks are suitable for displays where some common information keeps on displaying continuously.

Go to the **Setup** group under **Slide Show** tab and select **Setup Slide Show** option. In **Set Up Show** dialog box, you can apply following choices:

**Show type**

Select *Browsed by an individual* to let a person go through it him or herself in a window.

**Show options**

To suppress any animation applied, check the option *Show without animation*.

**Advance slides**

Select *Manually* option.  
Finally, click OK.

**21. What is the use of .ppsx file? How is it different from .pptx?**

Once the presentation is finalised and we need to distribute it to others then instead of giving away the pptx file, we can save the presentation as PowerPoint show (.ppsx file). Powerpoint show runs in full screen without having the need to open PowerPoint application.

**22. Describe various options available while printing a presentation.**

**What to Print?:** PowerPoint allows printing full slides, notes pages and outline of the presentation. We can also decide the layout of the printing by accommodating multiple slides on a page for economical printing.

**Printing Sides:** We can specify if you wish to print on one or both side of the page.

**Print Orientation, Collation and Colour:** We can select the orientation (portrait or landscape) of the printed page, whether the pages will be collated in case of multiple copies, and whether printout needs to be coloured (if colour printer is installed), pure black and white or combination of gray (grayscale).

**Number of copies and Printer Selection:** We can mention the number of copies to be printed and if multiple printers are installed, then which printer we need to take printout from.

## Unit 6: Email Messaging (Intermediate)

### ASSESSMENT

**1. Briefly explain the significance of calendar tool for working professionals and scholars.**

Using a calendar application or calendar as a feature of your emailing application adds efficiency to your work and communication as a profession.

Calendar helps keeping track of appointments, tasks and important events easily. You can setup reminder for important dates.

Another powerful feature of an online calendar is that it lets you collaborate with others. You can share the calendar with others seamlessly over email and all the people involved in a meeting, task or event are equally reminded of the deadlines and any updates in it.

**2. What are the various layouts or views in which an Outlook 2013 Calendar can be arranged?**

Calendar layout or view can be arranged by using following option in **Arrange** group of **Home** tab (Same are available in **Arrangement** group of **View** tab also.)

**Day:** It shows the current day which can be divided into spans of minutes.

**Work Week:** It assumes Saturdays and Sundays as non-working days and does not show them. It displays working 5 days of the current week.

**Week:** It shows all the 7 days of the current week.

**Month:** This shows entire current month.

**Schedule View:** This view is useful when you are scheduling a meeting or appointment.

**3. How will you setup the working days and working start time, end time and holidays in your Calendar according to your company policy?**

Some common options like working time duration, working days, first day of the week, default reminder time, adding holidays, various display options and time zone related settings etc. can be set in **Outlook Options** window by using **Options** option in **File** tab. Finally, click OK.

**4. What is the difference between a one-time appointment and a recurring appointment or meeting in Outlook Calendar. Explain with a small example.**

One time appointment is a specific meeting which is conducted once. Recurring appointments, events or meetings are held regularly at scheduled days throughout a span of days, months or years. For example, weekly meetings or 3 days' review meeting every month.

**5. Write the steps to create a recurring appointment for every Monday and Tuesday, 9 AM to 12 noon for next three months.**

Click on **Recurrence** option in **Options** group in **Appointment** tab of Appointment window. **Appointment Recurrence** dialog box will appear. Here, In **Recurrence Pattern**, select Monday and Tuesday checkboxes. Set appointment start and end time to 9 and 12 respectively. In **Range of Recurrence**, open **End by** drop down and select a date three months later. Finally, click on OK

**6. Write the steps to define dark blue colour coded category of an appointment by the name 'Top Priority'.**

- Double click on the desired appointment in your calendar to open it.
- Select **Categorize** drop-down in **Tags** group of **Appointment** tab and select **All Categories...** option.
- In the **Color Categories** dialog box, click on **New...** button. In **Add New Category** dialog box, specify the name 'Top Priority' and select Dark Blue colour.
- Finally, click on **OK** button for both the dialog boxes..

**7. Write the steps to share your Outlook calendar on the email with two of your friends.**

- Click on **E-Mail Calendar** option in the **Share** group of **Home** tab.
- In the dialog box that pops up, select whether you need to share today, a range of days or whole calendar etc. Then click on **OK**.
- Mention the your friends' (recipients') email IDs and Subject. The calendar will be shown attached with the email message. Click on **Send** button.

**8. Briefly describe 6 views (styles) in which an Outlook 2013 Calendar can be printed.**

Calendar Print styles are as below:

- **Daily:** Shows items with time break up for one day per sheet.
- **Weekly Agenda:** Displays items for 7 days per sheet.
- **Weekly Calendar:** Combination of above two – displays time break up for 7 days per sheet.
- **Monthly:** Displays items of a month per sheet.
- **Tri-fold:** Displays time break up for current day on left side, list of tasks in the center and items for next 7 days on right hand side.

- **Calendar Details:** Displays detailed appointments setup in the calendar.

**9. What is the basic difference between an appointment and a meeting request? How will you create a meeting request and send to others?**

Appointments are the formal invitation to a mutually agreed meeting. They are generally created after the appointment with the participants is confirmed. A meeting request, on the other hand, is something you create and send to others seeking their agreement and acceptance. Others may or may not accept your meeting request. Meeting request refers to a proposed agenda for the meeting you send to others and seek their agreement on it. People may respond to the request by accepting it or declining it due to any reason.

In **New** group of **Home** tab, click on **New Meeting** option.

A new **Invited Event** window will open up. Fill in the recipients, subject, location and details of meeting. Once done, click on **Send** button.

**10. What is the difference between a Task and a Note. How will you create a task with reminder for yourself?**

During your routine job, there could be several important tasks you need to complete in certain deadlines. Keeping track of important tasks becomes easier if they are created and saved in Outlook.

Notes are short, quick text messages which can be created for reference or reminders.

To create a task, click on **Task** option in the **New** group of **Home** tab.

In the **Task** window, enter the task Subject, Start and Due dates, Status namely Not Started, In Progress, Completed, Waiting on someone else, and Deferred, Task Priority as Normal, Low or High, and Percentage task completed.

You can also set a reminder date and time for the task.

Finally, enter the task description and click on **Save & Close** button in **Actions** group of **Task** tab.

**11. Write the steps to create a simple note.**

To create a note, in the folder pane of Outlook, click on ... (**more**) icon and select **Notes** option.

In the **Notes** window, click on **New Note** option in **New** group of **Home** tab. A new note popup box will appear.

Type the note details.

To save the note, click on the *Note* icon on the top-left corner of the note popup and select **Save As** or **Save & Close** option.

**12. What is a journal? Explain briefly.**

Journal entry creates a timeline of transactions that can be linked to a contact. A transaction might be an email, task, appointment etc. The following activities can be automatically recorded:

- Emails Sent & Received
- Telephone calls
- Meeting requests & responses
- Office documents you manage

## Unit 7: Database Development (Basic)

### ASSESSMENT

- 1. What is the basic difference between the terms *data* and *information*? Explain with a small example.**

Data can be anything such as, name of a person, a number, images, sound, etc.

For example, *Ravi, 4, student, etc.* When the data is processed and converted into a meaningful and useful form, it is known as information.

For example, *Ravi is 4 years old and he is a student.* is information.

- 2. Define the terms DBMS, RDBMS and Database.**

A database is a collection of related data from which users can efficiently retrieve the desired information. A database can be a simple collection of text data in a simple tabular form to a complex collection of images, audio or video.

DBMS is a collection of programs that enables users to create, maintain database and control all the access to the database. The primary goal of the DBMS is to provide an environment that is both convenient and efficient for user to retrieve and store information.

Relational databases are more widespread than the flat file database alternatives. Relational databases break up the single table of flat file database model. Therefore relational databases are split up into multiple database tables with methods for the tables to work together. These tables then need to be linked in some way by the database designer. Links are established with primary and foreign keys which are unique identifiers for the database tables.

- 3. Briefly describe any 5 advantages of a DBMS.**

a) The ability to update and retrieve data: This is the fundamental feature of a DBMS. Without the ability to view or manipulate data, there would be no point to using a database system. Updating data in a database includes adding new records, deleting existing records and changing information within a record.

b) Support Concurrent Updates: Concurrent updates occur when multiple users make updates to the database simultaneously. Supporting concurrent updates is also crucial to database management as this ensures that updates are made correctly. Otherwise it would lead to the loss of important data and/or inaccurate data stored.

c) Recovery of Data: DBMS provides ways to backup and recover database. There are times computers may crash, a fire or other natural disaster may occur, or a user may enter incorrect information invalidating or making records inconsistent.

d) Security: To prevent unauthorized access to the database, DBMS uses features like encryption, authentication, authorization and views to provide security to the database.

e) Data Integrity: Data integrity is a set of rules that DBMS provides to see that data incorrect or inconsistent data is not stored.

- 4. Describe briefly any 4 areas where database systems are being used.**

Travel Industry: Airlines, railways, hotels and cab industry use online databases for reservation, room bookings and for displaying the schedule information.

Banking & Finance: Databases are used for storing information such as sales, purchases of stocks and bonds or data useful for online trading, customers, accounts, loans, and other transactions.

Education: Schools and colleges use databases for course registration, result, and other information.

E-commerce: Integration of heterogeneous information sources (for example, catalogues) for business activity such as online shopping, booking of holiday package, consulting a doctor, etc.

**5. Briefly describe the use of 4 basic objects of a database.**

**Table**

A Table is a collection of data related to a single topic and a database is a collection of tables. A table organizes the information about a single topic into rows and columns.

**Query**

The purpose of a database is not only to store and accumulate information, but also to ensure information retrieval according to specific criteria.

A query can be used for selection of information in one or several tables. The result of a query can be displayed in data table, form and report views; it is possible to specify the table fields to be included.

**Form**

In databases, it is possible to use forms for the creation, display and modification of records. Data entry in a form is visually easier to understand than in a table, and is simpler for the user. Forms may contain fields for data entry, field descriptions (names), action buttons, menus, pictures, and design elements.

**Report**

Reports are usually used to print out information with a particular design. Reports are created using query or table data. Creating database reports is ideal when you want to:

Provide hard-copy printouts for review at a meeting.

Include data from your site in a printed publication.

Mark up the information in your database that needs updating.

**6. What is the relation between a table and field types?**

A table can store various types of data. Data storage is organized as fields or columns. A field can store same type of data. Each field has a unique name in the table. For example, a table **Student** can contain fields like StudentName (Varchar), Address (LongVarchar), Class(Char), Admission\_Date(DateTime).

**7. How is Varchar type different from Char?**

CHAR text (fix): Stores exactly the length specified by user. Pads with trailing spaces for shorter strings. Accepts any UTF 8 Character.

VARCHAR (text): Stores up to the specified length. No padding (Same as long var char)

**8. Briefly describe any 4 numeric data types in OO Base.**

Numeric data types are used for describing numeric values for the field used in the table of a database. Numeric data types in a database can be using for storing information such as mobile number, roll number, door number, year of school admission, true or false statements, statistical values, etc. The different types of numeric data types available are listed here.

BOOLEAN (yes / no) Values as 0 or 1.

Example: True or False, Yes or No.

TINYINT (tiny integer): Integer range between 0 and 255

SMALLINT (small integer): Integer range between  $-2^{15}$  to  $+2^{15}-1$

INTEGER: Integer range between  $-2^{31}$  and  $+2^{31}-1$

**9. How can OO Base store images or audio?**

Binary data types are used for storing data in binary formats. Binary data types in a database can be using for storing photos, music files, etc. In general, files of any format can be stored using the binary data type. The different types of binary data types available are listed here.

LONGVARBINARY (image): Stores any array of bytes (images, sounds, etc.). No validation required.

BINARY (fix): Stores any array of bytes. No validation required.

VARBINARY: Stores any array of bytes. No validation required.

**10. What is the significance of Primary key? Write the steps to set a field as primary key in a table.**

Primary key uniquely identifies each record in the table. Primary key consists of a single attribute or multiple attributes in a combination.

**Properties of Primary Key**

- a) It must have a non-null value for each instance of the entity.
- b) The value must be unique for each instance of the entity.
- c) The value must not change or become null during the life of each entity.

**Setting the Primary Key**

To set a field as Primary Key, in the **Design View**, right click on the left hand side gray area showing a green arrow beside the desired field and select **Primary Key** from the context menu. An icon of a key is displayed beside the primary key field now where you had right clicked.

**11. How are primary and foreign key related?**

Primary key uniquely identifies each record in the table. Primary key consists of a single attribute or multiple attributes in a combination.

The foreign key refers to a referencing key present in child table to a matching value in a column in another table (parent). It cannot contain the values other than that column. It can contain the duplicate values also.

Table : Teacher		Table : Department	
TNO	PRIMARY KEY	DEPT_NO	PRIMARY KEY
TNAME		DEPT_NAME	
TADDRESS			
SALARY			
DEPT_NO	FOREIGN KEY		
DOJ			

**12. Write one SQL statement for each of the DDL and DML action.**

**Creating a New Table using SQL Statement**

```
CREATE TABLE "Sales"
(
    "ITEM_CODE" Varchar(4),
    "SALE_DATE" Date,
    "QTY_SOLD" Numeric(5)
);
```

**Display selective fields on the basis of a criteria (condition)**

```
Select ITEM_NAME, ITEM_SIZE, ITEM_TYPE, PRICE
from Item
where PRICE > 800;
```

**Inserting New Records**

```
Insert into "Item" (ITEM_CODE, ITEM_NAME, ITEM_SIZE, ITEM_TYPE, PRICE)
values('J011','JACKET','28','LEATHER',7600);
```

### **Deleting Records**

Delete from "Item" where PRICE < 700;

### **Updating Records**

```
update "Item"  
set "ITEM_TYPE" = 'STRETCH'  
where "ITEM_TYPE"='STRETCHABLE';
```

### **13. How will you create a table in table design view?**

Click on **Create Table in Design View...** option in the **Tasks** pane.

As you chose to create a table using Design View, the Design View window opens up.

Under **Field Name**, specify the names of the fields that make the table. For each field, define the data type under **Field Type**. **Description** is optional.

### **14. What do you mean by field types and field properties? Describe briefly about any 3 field properties.**

Field type determines which type of data the field should store like varchar, datetime etc.

Field property describes the behaviour of the field like whether data entry in the field is mandatory or not, size of the field etc.

### **15. What is the basic difference between table design view and data view?**

Table design view allows the user to define the structure of the table in terms of various fields and field properties. User sets up primary key in this view also.

Data view displays the data stored in the table and user can work with the table data by inserting, deleting and modifying it.

### **16. What details do you need to specify or select in a Form Wizard?**

1. Select the desired table from the **Table or queries** drop-down.
2. Insert an already existing form in the form being created.
3. Select the arrangement of the controls in the Form
4. Select the data entry mode either to enter only new records and not to display the records already entered in the table or to display all the records. Here, you can also select to disallow modification and deletion of existing data and entry of new data.
5. Select any display style for the Form
6. Specify a name for the form.

### **17. How the records are navigated in a form? How will you add a new record in the table through a form?**

Once form is opened in the working mode, you can use the backward and forward arrow buttons on the **Form Navigation** toolbar. To skip to a blank record for entering new data values, click on **New Record** button on this toolbar.

### **18. Write a brief note on SQL giving 3 examples of select statement.**

#### **Structured Query Language**

Some RDBMS like MS Access, OO Base etc. provide graphical interface to design a query while others do not. Besides design view, there is another powerful way of querying for data from the database and that is called SQL (pronounce "sequel") – Structured Query Language. An SQL statement is a simple English like set of commands and clauses which help in querying desired data from the database.



**SQL Command:** It is a keyword that denotes the action to be performed on the desired table like *CREATE* (to create database objects like tables), *SELECT* (to query data), *UPDATE* (for data modification) and *DELETE* (to remove data)

**SQL Clause:** It is a keyword that is used along with SQL command to define the scope of the SQL Command and to determine in which order the data should be displayed in output. Like, *while* (to filter records on the basis of condition(s)), *order by* (to sort the output) etc.

```
SELECT ITEM_CODE, ITEM_NAME, PRICE from Item;
```

```
SELECT * from Item;
```

```
Select ITEM_NAME, ITEM_SIZE, ITEM_TYPE, PRICE
from Item
where PRICE > 800;
```

**19. Give one example for each of the following:**

- a. Display all the fields and all the records of a table.
  - b. Display selective fields of all the records in a table.
  - c. Display selective fields and selective records from a table.
  - d. Display selective fields and selective records from a table in descending order.
- a. `SELECT * from Item;`
  - b. `Select Item_Code, Item_Name from Item;`
  - c. `Select Item_Code, Item_Name from Item where Price>1000;`
  - d. `Select Item_Code, Item_Name from Item where Price>1000 order by Item_Name desc;`

**20. Briefly explain how data can be manipulated or modified in a table. Give example for each to support your answer.**

Data can be modified in a table using Table Data View or a form created in the table or by using SQL commands.

Using SQL commands, data can be updated or deleted. Also, new records can be inserted.

**Inserting New Records**

```
Insert into "Item" (ITEM_CODE, ITEM_NAME, ITEM_SIZE, ITEM_TYPE, PRICE)
values('J011','JACKET','28','LEATHER',7600);
```

**Deleting Records**

```
Delete from "Item" where PRICE < 700;
```

**Updating Records**

```
update "Item"
set "ITEM_TYPE" = 'STRETCH'
where "ITEM_TYPE"='STRETCHABLE';
```

**21. Why is it generally necessary to specify some criteria while deleting or updating records in a table? Give example to support your answer.**

If we do not specify criteria using *where* clause while updating or deleting records, all the records will be affected.

For example, statement: `Delete from "Item"`

will delete all the records in the table so there must be some criteria like:

```
Delete from "Item" where PRICE < 700;
```

Similarly, statement:

```
update "Item"
```

```
set "ITEM_TYPE" = 'STRETCH'
```

will update ITEM\_TYPE of all the records to STRETCH in the table so there must be some criteria like:

```
update "Item"
set "ITEM_TYPE" = 'STRETCH'
where "ITEM_TYPE"='STRETCHABLE';
```

**22. Explain the simple syntax of Create table statement.**

```
CREATE TABLE "<TABLE NAME>"
(
    "FIELD NAME" DATA TYPE,
    "FIELD NAME" DATA TYPE,
    "FIELD NAME" DATA TYPE
    .
    .
    .
);
```

**23. Briefly describe how data is organised in various sections of a report.**

**Different Sections of Report**

The Header Section is the top most section of the report. Report headers usually contain titles and logos. Page headers usually contain column headings.

The Details Section is the body of the report which contains the main data. All reports must have a detail section.

The Footer Section can appear in several places. You can create page footers that appear at the bottom of each report page and display elements such as page numbers.

The header and footer sections are optional.

For example, if you don't want to group the data, you don't need to group headers or footers. However, make sure that your reports contain enough information to make them meaningful and easy to understand.

**24. List the details and choices you need to mention in Report Wizard to create a report on a table.**

1. From **Tables or queries** drop-down, select the desired table or query, add the desired fields to the **Fields in report** list.
2. Change the labels of the fields into more readable forms.
3. Select the field to group the records on it.
4. Select the fields on which report data should be sorted in ascending or descending order.
5. Choose a report layout and page orientation.
6. Specify the title of the report.