

ROYAL OAK INTERNATIONAL SCHOOL
SR. SEC. CBSE AFFILIATED
HOLIDAY HOME WORK (SESSION 2020-21)
Class - XI



Please note the following:

- 5 marks for the Holiday Homework will be awarded to each student in the internal assessment for Term I progress report.

Wishing you all a very fruitful and enjoyable vacations. **HAPPY HOLIDAYS!**

Stay Home, Stay Safe. Adopt Social Distancing

FOR THE PARENTS

Summer vacations are here. So, we are coming out with feeling like an Easter flower in bloom rather than a cracked Easter egg!

1. Tap the talent of your child and let them be creative.
2. Keep at least half an hour a day for sharing experiences with your child.
3. Use holiday homework as an opportunity to spend quality time together. Let your child take the lead and use his/her imagination, creativity and knowledge to do the assigned task.
4. Learning doesn't stop when school is out. This rule came out of desperation.
5. Tell your child different stories regularly and encourage them to describe what they would do in a similar situation. Here are few suggested titles which you can read with your child.
 - a. Lacey-the little mermaid fairy.
 - b. Panchatantra stories.
 - c. Giraffe can't dance
 - d. I like myself
 - e. Dolphins at the day break.
6. Encourage your child to speak in English. Fix one hour in a day when you communicate with your child only in English.
7. Set a goal for yourself and your child. Spend 1 hour each day reading and writing. Plan a certain time that is convenient, perhaps right after the evening meal.
8. Develop self helpskills : Let your child dress and feed on their own.
9. Restrict his/her television watching, confining it to interesting children's program, discovery channel etc.
10. Make his/her understand the importance of cleaning his/her room .
11. Take good care of your health and hygiene. Avoid heavy and oily food and increase intake of fresh food and water to keep yourself well hydrated and energetic.
12. Introduce them to fun-filled activity boxes - These activity boxes help the children to nurture their creativity and imagination through art explorations, cooperative games, and challenging tasks.
13. Resources for talking to kids about COVID-19: The Child Study Centre hosts educational webinars throughout the year. In its latest webinar, Everyone is Anxious. Talking to your child about Novel Corona Virus, discuss how to help children cope with COVID-19 and provide ideas by diagnosis and developmental level.

Conclusion : It may not be easy for the parents to ban their children completely from watching TV or playing games on their phones in one shot. However, they can induce gradual changes by cutting down a few screen hours and introduce the above-mentioned activities to their schedule.

Have a nice time!

PRINCIPAL

SECTION A: READING

A.1. Read the following passage carefully:-

Aesthetically arranged flowers in simple decorative containers indicate your taste to interiors and helps to create the right ambience in a room. Flowers to match or contrast the colour scheme of your decor lend a specific character to your premises.

Flowers can be placed in a living room, dining table, study or bathrooms. Different flowers for each room create homeliness. They make the room look beautiful and serene. Flowers can motivate a student to concentrate, embellish a dining table with an aura of happiness and relax the diners. Fresh flowers though especially flowers are not available throughout the year. Roses and Gladioli go pale in the summers and shrink quickly. If you want to create the effect of flowers in your environs, without having to worry about their maintenance go for artificial flowers.

With the availability of artificial flowers, one does not have to rush out to purchase fresh flowers at early hours too. The only trick is to know the art of arranging them. Once you have the arrangement right, to lift up your spirits and enhance the colour and brightness in your living room.

Artificial flowers that look real from a distance can be made of silk, crepe, velvet or synthetic paper. Some of the imported flowers have a natural sheen and unless you touch them it is difficult to make out if they are real. This is particularly true for artificial greens - shrubs, money plants, creepers, plants and trees- these look good in hotel lobbies and restaurants.

But if you purchase artificial flowers in the hope that they will last a lifetime, you are sadly mistaken. "They may not wilt as quickly as natural flowers but will require your attention for their maintenance" says Roop Sagar, owner of flower shops at the Maurya Sheraton and Radisson Hotels.

Owing to the dust in our environment and the dust storms in summers, artificial flowers attract dirt and have to be cleaned delicately. In the monsoon months, on the other hand, dampness robs them of the sheen and they appear listless. Vacuum cleaning and soft handling restores them to their original shape and charm. "After cleaning, they require fresh arrangement with fillers like dried leaves." Adds Roop.

a. On the basis of your reading of the above passage make notes on it, using headings & Sub headings. Use recognizable abbreviations wherever necessary (minimum 4).

b. Make a summary of the passage in about 80 words.

A. 2. Read the following passage and answer the questions that follow:

Pondicherry as a seaside resort has an enchanting ambience, not felt anywhere else in India. It is a blend of spiritual aura, French colonial heritage. Tamil culture and the cosmopolitan flair of many nationalists in a small, vibrant town. The inherent ambience of Pondy, as it is fondly called becomes most evident in the oldest part of the town. Colonial buildings some of which were built in the 18th century, line the clean streets and house the French institutions, private homes, businesses and the famous Sri Aurobindo Ashram. Quiet beaches and peaceful resorts to the north and south balance the town's bustling, yet easy going life.

It is also the perfect base to explore the rich destinations around it. Auroville, the International City of Unity with Matrimandir as its centre, has a dome which has the largest man made crystal in the world at the top of the dome. The crystal filters the harsh sunlight and lets in soothingly sufficient light into the meditation hall. Anchor yourself in Pondy and find in your reach the imposing Gingee Fort, the holy temple of Kanchipuram, Tiruvannamalai and Chidambaram, the heritage sculptures and magnificent rock temples of Mamallapuram and the lush hill stations of Yercaud and Kodaikanal.

Monuments are plenty in Pondy and each one has a story to tell. The Aayi Mandapam at the centre of the park was built during the reign of Napoleon III in France and named after a 16th century courtesan Aayi, who demolished her house and built a water tank instead. This to appease a passing king who had mistaken her candle lit home for a holy place. This reservoir served French engineers later to bring water to the town.

Pondicherry is best accessible by road from Chennai, Bangalore and even from Kerala. It has wide choice of hotels, beach resorts for the easy going tourists and families, heritage hotels for those who want to experience something more than the present, high class commercial hotels for the corporate visitor and the neat Ashram Guest Houses for the spiritual seeker. Pondy has a lot to offer to the shoppers and is fast becoming a favourite shopping destination. It is soft on your purse with taxes either low or non-existent. It is known for its traditional doll making and textiles and silks. But it is also the birth place of several of several world class brands in leather, pottery, aromatics, fashion and handmade paper. The proliferation of exquisite decor boutiques and export quality antique furniture galleries is the latest trend.

2.1 Choose the most appropriate options from the following :

(a) Pondy's ambience is unique because

- (i) Sri Aurobindo Ashram is there
- (ii) its lifestyle is easy going and peaceful
- (iii) it's a blend of different cultures and heritage.
- (iv) there are beaches in the north and south of town

(b) Which one of the following is a reminder of Pondy's French connection?

- (i) the Matrimandir
- (ii) the Aayi Mandapam
- (iii) the Sri- Aurobindo Ashram
- (iv) the Gingee Fort

(c) The monument at the centre of the Park is famous because

- (i) it was made by Napoleon III
- (ii) it is the only monument with a story
- (iii) earlier it was a candle – lit holy place
- (iv) Aayi, a courtesan, built it to appease a king

(d) Pondy's heritage hotels are meant for those who

- (i) want a stay with a spiritual touch
- (ii) want a luxurious stay
- (iii) want a low budget stay
- (iv) want to experience life of the past

(e) Shoppers are attracted to Pondy because

- (i) it offers beautiful soft purses
- (ii) they can learn traditional doll-making
- (iii) taxes are low or absent
- (iv) it is turning into a shopping destination

(f) The word proliferation (para 5) means the same as

- (i) rapid increase
- (ii) rapid decrease
- (iii) diminishing profitability
- (iv) rising importance

Answer the following questions briefly:

- g. What is so special about Matrimandir?
- h. Mention any two factors which make Pondicherry a dream destination for any tourist.
- i. How did the Aayi Mandapam get its name?
- j. Pondicherry is a shopper's delight. How?
- k. Find words from the passage which mean the same as each of the following:
 - (i) impressive to look at (Para 2)
 - (ii) to calm or pacify (Para 3)

SECTION B (WRITING SECTION AND GRAMMAR SECTION)

B.1. The National Integration Council needs a poster to promote national unity and communal harmony. Draft an attractive poster.

B.2. On behalf of the Principal of your school, draft an advertisement inviting applications for the post of PGT (English) teacher.

B.3. During the summer break you went on a trekking and camping trip to Himachal Pradesh with your friends. Write a factual description in about 150-200 words narrating your joys of trekking, the open air camp life and adventures of the group.

B.4. Your school plans to launch its community radio soon. On behalf of the Principal of your school write a notice announcing the decision and inviting the students to appear for audition.

B.5. You are Akriti/Akrit living at Bandra, Mumbai. Last month you bought a 4G mobile phone with a yearlong guarantee. Unfortunately, the set has developed a snag and is no longer working. Write a letter to the Customer Care Manager of the manufacturer complaining against the defective set and asking for a replacement. Quote the cash memo number, model and date of purchase.

B.6. Terrorism is no more a local issue. It is a global concern now. Write a letter to the Editor of a leading newspaper voicing your concern and views on the issue which needs immediate redressal. You are Chris Harris, living in Alaknanda Apartments, Adarsh Nagar, New Delhi.

B.7. You are Roger living in Canal Apts, Lajpat Nagar, New Delhi. Recently you read an advertisement for the post of a Sales Executive in Meera & Company, Field Ganj, Ludhiana. Write an application for job giving your complete bio-data separately.

B.8. Outside the gate of your school there are few food carts. They don't deserve strict hygienic standards. You have observed that so many students go to them immediately after the school is over. This can create health problems. As Headboy/ Headgirl of your school, write a speech in 150-200 words on "Healthy Food" to be delivered in the morning assembly.

B.9. Rob, the multi-faceted artist-anchor of the programme M.A.D of the POGO channel held an Art and Craft workshop in your school during the summer vacation. Write a report of the event in about 150-200 words.

B.10. Today Indian media, both print and electronic has become very active. All major newspapers and TV channels have taken on the problems of corruption, bribery, violence, terrorism, crime and violation of human rights. You strongly feel that this is a good sign for Indian Democracy. Write an article in 150- 200 words on "Media as Watchdog of our Democracy".

B.10. You are Neeraj/Neerja Principal of Model Secondary School, Pune. Your school has just started a music department. Write a letter to the Manager of Melody House, Pune wholesale suppliers of musical instruments, placing an order for musical instruments for the school. Ask for a discount on the catalogue prices. (120-150 words).

B.11. The Nilgiris Senior Secondary School is holding an interschool debate on the topic, "School bullies are a menace; they should be expelled." You will be participating from your school in the debate. Write your debate in 150- 200 words choosing a stand for or against the motion.

B.12. Rearrange the following words to make meaningful sentences.

- (a) Society/is/discipline/of/foundation/the very
- (b) Obey/a soldier/ or/ the orders/a child/a student/ must
- (c) fit and/the body/games/look active/and/ develop/keep it/ make a person
- (d) you/ pass/can't / unless/the/you/examination/ hard / study
- (e) effect/we/in/did/much/sales/last/not/year/improvement

B.13. The following passage has not been edited. There is one error in each line. Write the incorrect word and the correction .

	Incorrect	Correct
I saw the leopard when I am crossing	(a) _____	_____
the small stream .As I cross the stream and	(b) _____	_____
begun climbing the hill, the grunting and	(c) _____	_____
chattering increases, as though the	(d) _____	_____
langurs was trying to warn me of some	(e) _____	_____
hidden danger. The tiger was not look toward	(f) _____	_____
me , but it must have sense my presence.	(g) _____	_____

SECTION C (LITERATURE)

C. 1. Answer the following questions in 30 to 40 words.

1. Describe the last moments of Khushwant Singh's grandmother?
2. Why did the grand mother always accompany the author to school?
3. What impression does the author form about his grandfather from his portrait?
4. What was the message contained in Sue's card?
5. What does the author mean by saying "honing our seafaring skills"? How did he do it?
6. Why did the captain call Ille Amsterdam the most beautiful island in the world?
7. Why does the narrator suggest to Mourad that they should keep the horse with them for a year?
8. Why did the boys return the horse to its rightful owner?
9. How did uncle Khosrove react when the farmer said that he had got his horse back?
10. Why did the narrator finally decide to forget the address?
11. Give evidence from the story that the narrator is a keen observer.
12. What was the suggestion made by Mrs. Dorling to Mrs. S.? What made the latter agree to it?

C. 2. Answer the following questions in 100 to 150 words.

1. "The author and his grandmother shared a deep bond of mutual love, trust and friendship." Discuss their relationship in view of this statement.
2. Briefly trace the journey of 'Wavewalker' from Plymouth, England to Ille Amsterdam.
3. What was Mourad and the narrator's tribes known for? How did the two boys stay away from their tribal traits ?
4. It is not easy to let go of the past memories and possessions. Do you agree? Discuss with reference to the story "The Address".

C. 3. EXTRACT

1. Read the extract given below and answer the questions that follow.

All three stood to smile through their hair
At the uncle with the camera. A sweet face,
My mother's that was before I was born

- (i) Who are the 'three' referred to in these lines?
- (ii) Why did they stand still ?
- (iii) What time period is referred to in these lines ?
- (iv) When and why is the narrator recollecting this moment ?

2. Read the extract given below and answer the questions that follow.

Till the goldfinch comes, with a twitching chirrup
A suddenness, a startlement, at a branch end.
Then sleek as lizard and alert and abrupt,
She enters the thickness

- (i) What is the situation till the arrival of the goldfinch?
- (ii) Why is the goldfinch startled?
- (iii) Mention the figure of speech in the third line.
- (iv) Whom the goldfinch is compared to?

3. Read the extract given below and answer the questions that follow.

And who art thou? Said I to the soft falling shower,
Which strange to tell, gave me an answer, as here translated:
I am the Poem of Earth, said the voice of the rain.

- (i) What makes the poet ask the rain, 'who art thou'?
- (ii) Why does the poet feel it strange to hear the rain speak?
- (iii) Explain "I am the Poem of Earth".
- (iv) Why does the rain call itself "Poem of Earth"?

HINDI

निर्देश-1. प्रश्न न0 1,2 प्रैक्टिकल फाइल तैयार करनी है।

2. प्रश्न न0 3,4,5 अपनी व्याकरण पुस्तिका में करना है।

1. निम्नलिखित कवियों में से किन्हीं दो कवियों का जीवन परिचय, उनकी काव्य रचनाएँ तथा उनकी कोई प्रसिद्ध कविताएँ सफेद ए-4 शीट पर सुंदर हस्तलिपि में लिख कर चित्र सहित एक फाइल तैयार कीजिए।
(मीरा, कबीर, मैथिली शरण गुप्त, हजारी प्रसाद द्विवेदी)
2. निम्नलिखित में से किन्हीं दो लेखकों का जीवन परिचय, उनकी कहानी, नाटक संस्मरण तथा लेख सफेद ए-4 शीट पर सुंदर हस्तलिपि में लिखकर चित्र सहित एक फाइल तैयार कीजिए।
(कृष्ण नाथ, कुमार गर्धव, प्रेमचंद, आचार्य रामचंद्र शुक्ल)
3. कोई भी दो-दो काव्यांश और गद्यांश पढ़ कर अपनी व्याकरण पुस्तिका में उत्तर सहित कीजिए।
4. कोरोना वायरस की लड़ाई में डॉक्टर और उनके सहायक कार्यकर्ताओं का योगदान विषय पर फीचर व्याकरण पुस्तिका में लिखिए।
5. आपका टेलीफोन एक माह से भी अधिक समय से खराब पड़ा है। शिकायत करने पर संबंधित कर्मचारी ध्यान नहीं देते हैं। इस संबंध में एम. टी. एन. एल. के महाप्रबंधक को शिकायती-पत्र लिखिए।

MATHS

1. Perform first 4 activities from the given list(URL) :

<http://ncert.nic.in/ncerts/l/kelm401.pdf>

2. DO FOLLOWING Questions IN SEPARATE HOLIDAY HOMEWORK NOTE BOOK

Sets

1. Write the proper subsets of set $A = \{\phi, a\}$.
2. Find the union of the following pair of sets $A = \{x : x \in Z^+, \forall x^2 < 7\}$ and $B = \{1, 2, 3\}$.
3. Find the power set of $A = \{2, \{3\}\}$.
4. Write the following intervals in Set-Builder form: -
 - (a) $(-7, 0)$
 - (b) $(6, 12]$
 - (c) $[-20, 12]$
5. Let $V = \{a, e, i, o, u\}$ and $B = \{a, i, k, u\}$. Find $V - B$ and $B - V$.

6. Describe the following sets by *Roster Method*: -
- $\{x : 25x^2 - 30x + 9 = 0, x \in \mathcal{Q}\}$
 - $\{x : x \text{ is a positive integer less than } 10 \text{ and } 2^x - 1 \text{ is an odd number}\}$
 - $\{x : x \in \mathcal{Z}, x^2 < 20\}$
7. Describe the following sets in *Set-Builder* form: -
- $\{1, 5, 9, 13, 17\}$
 - $\left\{ \frac{1}{4}, \frac{1}{6}, \frac{1}{8}, \frac{1}{10}, \frac{1}{12} \right\}$
 - $\left\{ \frac{1}{2}, \frac{2}{5}, \frac{3}{10}, \frac{4}{17}, \frac{5}{26}, \frac{6}{37}, \frac{7}{50} \right\}$
 - $\{3, 5, 9, 17, 33\}$
8. If $A = \{a, b, c, d, e\}$, $B = \{a, c, e, g\}$ and $C = \{a, b, g\}$, verify the following: -
- $A - (B \cup C) = (A - B) \cap (A - C)$
 - $A - (B \cap C) = (A - B) \cup (A - C)$
9. If $A = \{x : x = 4n + 1, n \leq 5, n \in \mathcal{N}\}$, $B = \{3n : n \leq 8, n \in \mathcal{N}\}$, then find: -
- $A - (A - B)$
 - $A - (A \cap B)$
 - $(A \cup B) - (A \cap B)$
10. If $n(\cup) = 40$, $n(A \cup B) = 31$, find $n(A' \cap B')$.
11. In a survey of 100 students, the number of students studying the various languages were found to be: English only 18, English but not Hindi 23, English and Sanskrit 8, English 26, Sanskrit 48, Sanskrit and Hindi 8, no language 24. Find
- How many students were studying Hindi?
 - How many students were studying English and Hindi?
12. Of a group of 120 students, 90 take Mathematics and 72 take Economics. If 10 students take neither of the two, how many take both?
13. In an examination, 80% students passed in Mathematics, 72% passed in Science and 13% failed in both the subjects. If 312 students passed in both the subjects, find the total number of students who appeared in the examination.
14. Two finite sets have m and n elements. The number of subsets of the first set is 112 more than that of the second set. Then find the value of m and n . ($n=4, m=7$)

Relations and Functions

1. If $A = \{x : x \in W, x < 2\}$ and $B = \{x : x \in N, 1 < x < 5\}$ and $C = \{3, 5\}$, find

(a) $A \times (B \cap C)$

(b) $A \times (B \cup C)$

2. Find the domain and range of the following relations: -

(a) $R_1 = \{(x, y) : y = 2x + 7, x \in R, -5 \leq x \leq 5\}$

(b) $R_2 = \{(x, |x|) : x \in R\}$

(c) $R_3 = \{(x, y) : x, y \in Z \text{ and } x^2 + y^2 = 64\}$

(d) $R_4 = \left\{ (x, y) : y = x + \frac{6}{x}, x, y \in N, x \leq 5 \right\}$

3. Find the domain and range of the following functions: -

(a) $\sqrt{x-1}$

(b) $\frac{4-x}{x-4}$

(c) $2 - |x-5|$

(d) $\sqrt{16-x^2}$

(e) $\frac{3}{2-x^2}$

(f) $|x-3|$

(g) $\frac{1}{\sqrt{x-5}}$

(h) $x^2 + 2$

(i) $\frac{1}{x-3}$

4. Draw the graphs of Signum, Modulus and Greatest Integer Functions.

Trigonometric Functions

1. Find the radian measure corresponding to the following degree measures: -

(a) 25°

(b) $-47^\circ 30'$

(c) $5^\circ 37' 30''$

2. Find the degree measure corresponding to the following radian measures: -

(a) $\frac{11}{16}^c$

(b) $\frac{7\pi}{6}^c$

3. Kartarpur is 64 km from Amritsar. Find to the nearest second the angle subtended at the centre of the earth by the arc joining these two towns. Take earth as a sphere of 6400 km radius.
4. Find the values of
 (a) $\cos 24^\circ + \cos 55^\circ + \cos 125^\circ + \cos 204^\circ + \cos 300^\circ$
 (b) $\sin 10^\circ \sin 50^\circ \sin 60^\circ \sin 70^\circ$
5. Show that $\frac{\tan 5 + \tan 3\theta}{\tan 5\theta - \tan 3\theta} = 2 \cos 2\theta \cos 4\theta$
6. Evaluate $\frac{\sin 11A \sin A + \sin 7A \sin 3A}{\cos 11A \sin A + \cos 7A \sin 3A}$
7. If $\tan(\pi \cos \theta) = \cot(\pi \sin \theta)$, show that $\cos\left(\theta - \frac{\pi}{4}\right) = \pm \frac{1}{2\sqrt{2}}$
8. Solve for 'x': $\sin x + \sin 3x = \sin 2x$
9. If $A = \cos^2 \theta + \sin^4 \theta$ for all values of θ then prove that $\frac{3}{4} \leq A \leq 1$
10. If $\cos(\alpha + \beta) = \frac{4}{5}$, $\sin(\alpha - \beta) = \frac{5}{13}$, where $0 < \alpha, \beta < \frac{\pi}{4}$, find the value of $\tan 2\alpha$
11. Prove that $\sqrt{3} \csc 20^\circ - \sec 20^\circ = 4$
12. If $\sin(\theta + \alpha) = \cos(\theta + \alpha)$, prove that $\tan \theta = \frac{1 - \tan \alpha}{1 + \tan \alpha}$
13. If $A - B = \frac{\pi}{4}$, show that $(1 + \tan A)(1 + \tan B) = 2 \tan A$
14. Prove that $4 \cos x \cdot \cos\left(\frac{\pi}{3} - x\right) \cos\left(\frac{\pi}{3} + x\right) = \cos 3x$
15. Prove that $\tan 20^\circ \tan 40^\circ \tan 60^\circ \tan 80^\circ = 3$
16. If $\sin \theta + \cos \theta = 1$, then find the general value of θ .
17. If $\sec x \cos 5x + 1 = 0$, where $0 < x \leq \frac{\pi}{2}$, then find the value of x .
18. Find the value of $\cos^4 \frac{\pi}{8} + \cos^4 \frac{3\pi}{8} + \cos^4 \frac{5\pi}{8} + \cos^4 \frac{7\pi}{8}$

19. Which is bigger $\sin 1$ or $\sin 1^\circ$? Justify your answer.

20. Find the minimum value of $3\cos x + 4\sin x + 8$.

21. If for real values of x , $\cos \theta = x + \frac{1}{x}$, then find the value of θ .

22. If

$$\tan A = \frac{1 - \cos B}{\sin B}, \text{ then prove that } \tan 2A = \tan B$$

BIOLOGY

1) Prepare the Herbarium file by collecting any 15 common plants.

2) Prepare a project file on any one life processes:

NUTRITION / RESPIRATION

3) Assignment :-

1. Who introduced Binomial nomenclature?

2. Write the following scientific name correctly - man, leopard, housefly, potato, tiger, lion and wheat.

3. How are taxonomic studies useful for human being?

4. Name two famous botanical garden of India.

5. Why was two kingdom classifications found inadequate to classify living organisms?

Give three reasons.

6. How is a key helpful in the identification and classification of an organism?

7. Write five characteristics of living organisms.

8. Illustrate the taxonomical hierarchy with suitable of a plant and an animal.

9. What is biological classification? How is it done?

10. Arrange the following in correct sequence- class, family, genus, kingdom, species, order, and phylum/division.

11. Distinguish between:

(a) Plant virus and animal virus

(b) Virus and viroids

(c) Mycobionts and phycobionts

(d) Ascospores and basidiospores

(e) Plasmogamy and karyogamy

12. a) Name three groups of organisms which are acellular.

b) Why did Whittaker not put viruses in five kingdom classification?

CHEMISTRY

- Solve Examples, In-text questions and exercise questions of **Some basic concepts of Chemistry** and **Structure of atom**.
- Solve NCERT Exemplar questions of **Some basic concepts of Chemistry** and **Structure of atom**.
- Project on Environmental Chemistry i.e. Chapter 14 of chemistry.

Note: Project should be strictly based on NCERT. Students need to write project report on A-4 size white sheets without lines and spiral binding of project file is to be done.

PHYSICS

PHYSICAL WORLD & MEASUREMENT (ASSIGNMENT 1)

Q1. Arrange four types of basic forces in order of increasing strength ?

Q2. How many nanometers constitute 4 metre ?

Q3. Do AU & A represent the same units of length ?

Q4. Can a body have zero mass & zero wt. ?

Q5. How many light years make one parsec?

Q6. What is the diff. b/w nm, mN & Nm ?

Q7. Define astronomical unit, parsec & light year. How are they related to each other?

Q8. Calculate the angle of i) 1 ii) 1' iii) 1''

Q9. State the no. of significant fig. in the following

a) 0.007 m b) 2.64×10^5 kg

c) 0.2370 g cm² d) 6.320 j

e) 6.032 Nm f) 0.0006032 m

Q10. Which of length measurement is most accurate & why ?

i) 500.0 cm ii) 0.00052 cm iii) 6.00 cm

Q11. Name two physical quantity whose dimension is same.

Q12. Name two quantity with constant value having dimension.

Q13. How many newton make 1 kg wt.?

Q14. When a white light travel with glass the refractive index is found to vary with wavelength as $\mu = A + B/2X$. where A & b are constant Using principle of homogeneity Determine S.I. unit of A & B

Q15. The length & breadth of a rectangle are (5.7 ± 0.1) cm & (3.4 ± 0.2) cm. Calculate area of rectangle with error limits?

Q16. If $A = (12.0 \pm 0.1)$ cm & $B = (8.5 \pm 0.5)$ cm find

i) $A+B$ ii) $A-B$

Q17. Find the height of the rock mountain, if the angle of elevation of its top increases from 30 to 40 degree on moving 100m towards the rock in horizontal directions through the base of the rock.

Q18. The mean value of period of oscillation of a simple pendulum in an exp. is 2.62s. The arithmetic mean of all absolute error is 0.11s. Round off the simple pendulum to appropriate no. of significant fig?

Q19. Each side of cube is measured to be 7.203m. What are the total surface area & the volume of cube to appropriate sig. fig.?

Q20. Two resistances $R_1 = 100 \pm 3$ ohm & $R_2 = 200 \pm 4$ ohm are connected in series, calculate the eq. resistance with error limit.

ASSIGNMENT 2

KINEMATICS

1. A ball is thrown straight up. What is its velocity at the top and acceleration?
2. What is relative velocity?
3. Derive equations of motion by calculus method.
4. A ball is thrown vertically upward. Draw its velocity time curve.
5. What does slope of velocity-time graph represent?
6. If velocity 'v' at any instant of time is given by equation, $v = 2t^2 + 4t + 3$, find acceleration at $t = 2$ sec.
7. What are the conditions for two vectors to be perpendicular?
8. What do you mean by resolution of vector?
9. Cross product of two same unit vectors is always zero. Why?
10. An object covers a semicircular path of radius r. calculate the ratio of distance to displacement.
11. Explain why it is easier to pull a lawn roller than to push it.
12. If $\vec{A} = 2\hat{i} - \hat{j} + 3\hat{k}$ and $\vec{B} = 3\hat{i} - 2\hat{j} - 2\hat{k}$. Find unit vector of $(\vec{A} + \vec{B})$.
13. Two forces whose magnitudes are in the ratio of 3:5 act at an angle of 60° and have resultant equal to 35N. Find the magnitude of forces.
14. Find the angle between $\vec{A} = \hat{i} + 2\hat{j} - \hat{k}$ and $\vec{B} = -\hat{i} + \hat{j} - 2\hat{k}$.
15. An object starting from rest accelerates uniformly along a straight line at the rate of 10m/s^2 for 55 sec. it moves for 2 second with uniform velocity of 50 m/s. then it retards uniformly and comes to rest in 3 sec. draw velocity-time graph of object & find the total distance travelled by the object.
16. State and prove triangle law of vector addition.
17. An object travels a distance of 20 m in the 7th second and 24 m in 9th second. How much shall it travel in the 15th second?

18. Brakes are applied to train travelling at 72 km/h. after passing over 200 m its velocity is reduced to 36 km/h at the same rate of retardation, how much further will it go before it is brought to rest.
 19. Define trajectory and derive expression for Time of flight, Horizontal range for a projectile given Angular projection.
 20. Two particles are projected from the ground simultaneously with speed 30 m/s and 20 m/s at angle of 60° and 30° with the horizontal in the same direction. Find maximum distance between them on ground where they strike. Take $g = 10\text{m/s}^2$
- Prepare unit physical world & measurement.
 - Prepare unit Kinematics.
 - Do numerical based upon Eq. of motion, Relative velocity, dot & crossproduct.
 - Do Activity based upon measurement.

COMPUTER SCIENCE

Instructions

1. **Platform: PYTHON 3**
2. **Submit Softcopy of Python programs.**
3. **Write Question Answers in the notebook**

Q1. Draw the main parts of Computer Organization with its functioning Units.

Q2. What is Unary, Binary and Tertiary operators ?

Q3. Write the following expression in the order of operational precedence for Python.

$$S = ((2 \times 4) / 2) + (10 - 7) \times 19 / 3$$

Q4. What is Unary, Binary and Tertiary operators ?

Q5. What a Python program to find the sum of 1^{st} n natural numbers.

Q6. Write a python program to accept 2 nos from user and print the sum of two numbers.

Q7. Write a program in python to input 2 nos from user and swap two numbers using both the techniques.

Q8. Write a Python Program to find the area of a rectangle.

Q9. Write a python program to find the sum of 1^{st} n natural numbers.

Q10. Write a python program to find greater number from two numbers.

Q11. What is Number System? Explain all the Number Systems.

Q12.

- Convert $(259)_{10}$ to binary form.
- Convert $(39286)_{10}$ to octal form.
- Convert the Hexadecimal number 3BC into its Binary equivalent.
- Convert the Binary number 10011010.010101 to its Hexadecimal equivalent.
- Convert $(74561)_8$ to Hexadecimal equivalent.

INFORMATIC PRACTICES

Prepare chapters:

Ch-1: Computer overview

Ch-2: Getting started with python.

Ch-3: Python fundamentals

Ch – 4: Data Handling

ASSIGNMENT

NOTE: Do assignment in IP notebook

1. What is the difference between Interactive mode and Script Mode in Python?
2. What are the advantages of Python?
3. What are operators? What is their function? Give examples of some unary and binary operators.
4. What are the limitations of Python?
5. Predict output:
`a, b, c = 2, 3, 4`
`a, b, c = a*a, a*b, a*c`
`print(a, b, c)`
6. WAP to print the volume of a cylinder when radius and height of the cylinder is given by user.
7. WAP to find area of a triangle.
8. WAP to calculate simple interest.
9. **Identify the data types of the following values given bellow –**
3, 3j, 13.0, "12", "14", 2+0j, 19, [1,2,3], (3,4,5)
10. What are data types? What are Python's built-in core data types?
11. What do you understand by term „immutable“?

ECONOMICS

Statistics:

1. Prepare a Questionnaire based on consumer items like mobile phones, laptops, bikes, networking companies, magazines, pen, online shopping etc.

2. Divide the Questionnaire in the parts.

a. Personal information.

b. Product or service information.

c. Consumer awareness.

3. Personal information should contain name, gender and age of the informant.

4. Consumer awareness questions should be limited.

5. No. of questions should be between 20-25

6. Explain the scope of statistics.

Creative work:

- **List out number of shops functioning near your residence. Mention their types. And prepare a report on their effect on public welfare and on our economy. Prepare a file for the above purpose.
(Name, class, topic name and index and objective of project are mandatory on file.)**

7. Make a comparative study on methods of sampling.

8. Draw a pie chart on the current situation of COVID-19 positive cases in each state of our country.

9. Draw a comparative study on India, China, and Pakistan on the spread of COVID-19 with the help of multicolored histogram, bar diagrams.

10. Complete all learning by doing exercises from the chapter **ARITHMETIC MEAN & MEDIAN.**

MICROECONOMICS:

- Explain the three types of economy and the solutions to the central problems by them.
- Explain the law of diminishing marginal utility with diagrams.
- If a consumer consuming two goods, how and when he can reach equilibrium. Show with proper schedule and curves
- Explain consumer equilibrium by indifference curve approach.

CREATIVE WORK:

- *Design PPT on topic of your choice from the book.*

ACCOUNTS

DO FOLLOWING QUESTIONS IN YOUR SEPARATE NOTEBOOK

1. Rohit has the following transactions :
 - a. Commenced business with cash Rs.1,50,000
 - b. Purchased machinery on credit Rs. 40,000
 - c. Purchased goods for cash Rs. 20,000
 - d. Purchased car for personal use Rs. 80,000
 - e. Paid to creditors in full settlement Rs. 38,000
 - f. Sold goods for cash costing Rs. 5,000 Rs. 4,500
 - g. Paid rent Rs. 1,000
 - h. Commission received in advance Rs. 2,000Prepare the Accounting Equation to show the effect of the above transactions
2. Use accounting equation to show the effect of the following transactions of M/s Royal Traders:
 - a. Started business with cash Rs.1,20,000
 - b. Purchased goods for cash Rs. 10,000
 - c. Rent received Rs. 5,000
 - d. Salary outstanding Rs. 2,000
 - e. Prepaid Insurance Rs. 1,000
 - f. Received interest Rs. 700
3. Show the accounting equation on the basis of the following transaction:
 - a. Udit started business with:
 - a. Cash Rs. 5,00,000
 - b. Goods Rs. 1,00,000
 - b. Purchased building for cash Rs. 2, 00,000
 - c. Purchased goods from HimaniRs. 50,000
 - d. Sold goods to Ashu (Cost Rs. 25,000) Rs. 36, 000
 - e. Paid insurance premium Rs. 3,000
 - f. Rent outstanding Rs. 5,000
 - g. Depreciation on building Rs. 8,000
 - h. Cash withdrawn for personal use Rs. 20,000
 - i. Rent received in advance Rs. 5,000
 - j. Cash paid to himani on account Rs. 20,000
 - k. Cash received from AshuRs. 30,000
4. Bobby opened a consulting firm and completed these transactions during November, 2017:
 - a. Invested Rs. 4,00,000 cash and office equipment with Rs. 1,50,000 in a business called Bobbie Consulting.
 - b. Purchased land and a small office building. The land was worth Rs. 1,50,000 and the building worth Rs. 3, 50,000. The purchase price
 - c. Purchased office supplies on credit for Rs. 12,000.
 - d. Bobbie transferred title of motor car to the business. The motor car was worth Rs. 90,000.
 - e. Purchased for Rs. 30,000 additional office equipment on credit.

- f. Paid Rs. 75,00 salary to the office manager.
 - g. Provided services to a client and collected Rs. 30,000
 - h. Paid Rs. 4,000 for the month's utilities.
 - i. Paid supplier created in transaction c.
 - j. Purchase new office equipment by paying Rs. 93,000 cash and trading in old equipment with a recorded cost of Rs. 7,000.
 - k. Completed services of a client for Rs. 26,000. This amount is to be paid within 30 days.
 - l. Received Rs. 19,000 payment from the client created in transaction k.
 - m. Bobby withdrew Rs. 20,000 from the business.
 - n. Analyse the above stated transactions and open the following T-accounts: Cash, client, office supplies, motor car, building, land, long term payables, capital, withdrawals, salary, expense and utilities expense.
5. Journalise the following transactions in the books of Harpreet Bros.:
- a. Rs.1,000 due from Rohit are now bad debts.
 - b. Goods worth Rs.2,000 were used by the proprietor.
 - c. Charge depreciation @ 10% p.a for two month on machine costing Rs.30,000.
 - e. Provide interest on capital of Rs. 1,50,000 at 6% p.a. for 9 months.
 - f. Rahul become insolvent, who owed is Rs. 2,000 a final dividend of 60 paise in a rupee is received from his estate.
6. Prepare Journal from the transactions given below :
- a. Cash paid for installation of machine Rs. 500
 - b. Goods given as charity Rs. 2,000 2018-19
 - c. Interest charge on capital @7% p.a. when total Rs. 70,000 capital were
 - d. Received Rs.1,200 of a bad debts written-off last year.
 - e. Goods destroyed by fire Rs. 2,000
 - f. Rent outstanding Rs. 1,000
 - g. Interest on drawings Rs. 900
 - h. Sudhir Kumar who owed me Rs. 3,000 has failed to pay the amount. He pays me a compensation of 45 paise in a rupee.
 - i. Commission received in advance Rs. 7,000
7. Give journal entries of M/s Mohit traders, Post them to the Ledger from the following transactions August 2017 Rs.
- a. Commenced business with cash 1,10,000
 - b. Opened bank account with H.D.F.C. 50,000
 - c. Purchased furniture 20,000
 - d. Bought goods for cash from M/s Rupa Traders 30,000
 - e. Purchased good from M/s Hema Traders 42,000
 - f. Sold goods for cash 30,000
 - g. 14. Sold goods on credit to M/s. Gupta Traders 12,000
 - h. 16. Rent paid 4,000
 - i. 18. Paid trade expenses 1,000
 - j. 20. Received cash from Gupta Traders 12,000
 - k. 22. Goods return to Hema Traders 2,000
 - l. 23. Cash paid to Hema Traders 40,000

- m. 25. Bought postage stamps 100
 - n. 30. Paid salary to Rishabh 4,000
8. Journalise the following transaction in the Book of M/s Beautitraders. Also post them in the ledger. Dec. 2017 .
- a. Started business with cash 2,00,000
 - b. Bought office furniture 30,000
 - c. Paid into bank to open an current account 1,00,000
 - d. Purchased a computer and paid by cheque 2,50,000
 - e. Bought goods on credit from Ritika 60,000
 - f. Cash sales 30,000
 - g. Sold goods to Karishna on credit 25,000
 - h. Cash paid to Mansi on account 30,000
 - i. 14. Goods returned to Ritika 2,000
 - j. 15. Stationery purchased for cash 3,000
 - k. 16. Paid wages 1,000
 - l. 18. Goods returned by Karishna 2,000
 - m. 20. Cheque given to Ritika 28,000
 - n. 22. Cash received from Karishna on account 15,000
 - o. 24. Insurance premium paid by cheque 4,000
 - p. 26. Cheque received from Karishna 8,000
 - q. 28. Rent paid by cheque 3,000
 - r. 29. Purchased goods on credit from Meena Traders 20,000
 - s. 30. Cash sales 14,000
9. Record journal entries for the following transactions in the books of Anudeep of Delhi:
- (a) Bought goods Rs. 2,00,000 from Kanta of Delhi (CGST @ 9%, SGST @ 9%)
 - (b) Bought goods Rs. 1,00,000 for cash from Rajasthan (IGST @ 12%)
 - (c) Sold goods Rs. 1,50,000 to Sudhir of Punjab (IGST @ 18%)
 - (d) Paid for Railway Transport Rs. 10,000 (CGST @ 5%, SGST @ 5%)
 - (e) Sold goods Rs. 1,20,000 to Sidhu of Delhi (CGST @ 9%, SGST @ 9%)
 - (f) Bought Air-Condition for office use Rs. 60,000 (CGST @ 9%, SGST @ 9%)
 - (g) Sold goods Rs. 1,50,000 for cash to Sunil to Uttar Pradesh (IGST 18%)
 - (h) Bought Motor Cycle for business use Rs. 50,000 (CGST 14%, SGST @ 14%)
 - (i) Paid for Broadband services Rs. 4,000 (CGST @ 9%, SGST @ 0%)
 - (j) Bought goods Rs. 50,000 from Rajesh, Delhi (CGST @ 9%, SGST @ 9%)

BUSINESS STUDIES

DO ANSWER OF THE FOLLOWING QUESTIONS IN SEPARATE NOTEBOOK

1. If a person sells his domestic computer at a profit. Will it be considered a business ? Also explain the characteristics of business which is being stressed upon in the above said example.
2. Mr. Rajnesh sold his furniture & bike on OLX as he was shifting base to London. Is this a business activity ? Which element of business being referred to here?
3. A lawyer is working in a knowledge process outsourcing (KPO) organization. What type of economic activity is he performing ?
4. A company has decided to donate 1% of its sales to an NGO, serving mentally disabled people. This initiative by the company was highly appreciated by the public and their sales increased by 10%
 - (i) Identify the objective depicted in the given example.
5. Tea is mainly produced in Assam, while cotton in Gujarat & Maharashtra but they are required for consumption in different parts of the country. How can this hindrance of place be removed? Also under what business activity will it be categorized.
6. It is one of the activities means for assisting trade and help in the promotion of the product by providing information to the consumers. Business does not exist in isolation, it has to communicate with others and the activity help in making consumers aware and informed about the product of the company and inducing them to buy particular items.
 - (i) Which activity is discussed in the above para?
 - (ii) What are those activities called which are meant for assisting trade?
 - (iii) Name and explain the categories into which communication services can be classified.
7. A factory emits a lot of smoke and pollutants while manufacturing Sugar. It is overlooking the impact of its activities on the environment and is engaged in profit maximization.
 - (i) Which objectives is not being fulfilled by the manufacturers?
 - (ii) Which type of industry will you classify sugar manufacturing in ?
8. Rising Heights Ltd. wants to expand and grow. For this it needs funds to acquire land, building , machinery etc. Also since these assets cost a lot they want the risk associated with them to be reduced. Identify the hindrances and explain how they can be removed.
9. Ramesh sells winter wear in the month of December , January and February but he is not able to sell his complete stock.
 - (i) Identify the hindrance (ii) How can he resolve this hindrance?
 - (ii) Will this hindrance always occur ? Why?
10. Mr. X and Y are having a discussion. Mr X feels that business is based on selfish desire to gain higher and higher profits while Mr. Y thinks that profit is essential for a business. Can you support Mr. Y's case by giving strong points in his favour?
11. Creative Strokes is an advertisement agency initiated by Rohit Shagun and Pratima. They have called a meeting to discuss the below given point:-
 - (i) Increase the profit margin by 10% in May.
 - (ii) Capturing bigger share in the market.

- (iii) Making use of better cameras and improved techniques.
 - (iv) Making best use of cameras lights. Cameramen. Finance etc. employed by the business.
 - (v) Improve efficiency in all regards of functioning of business.
 - (a) Which aspects of business objectives are being referred to here?
 - (b) Also develop each point to be discussed in the meeting by classifying the objective.
12. Nathu Lal prepares sonpapri for customers during Diwali season every year. He prepared more Sonpapari than he could sell this year. He employed women and children also and paid them less salary manufacturing on the packages. This way he generated profit for himself.
- (a) Do you think he is fulfilling all the objectives of business?
 - (b) If not which aspects of this objectives are not being fulfilled?
13. Classify the below given business into different type of industries :-
- (i) Crude oil business
 - (ii) Producing steel from iron ore
 - (iii) Cosmetics manufacturing
 - (iv) Producing computers
 - (v) Construction of dams
14. In business activities , there are some activities that are involved in the removal of hindrances in process of exchange i.e from the producers to the consumer Identify them. Also classify the activities which help in removing the following hindrances :-
- (i) Hindrances of place
 - (ii) Hindrances of risk
 - (iii) Hindrances of time.
 - (iv) Hindrances of finance
 - (v) Hindrances of information
15. Different situations in different business are being elaborated below:-
- (i) Raghunath Gorkha had a match stick factory in Nepal which got distructed by the recent earthquake.
 - (ii) Mr Arya, a senior manager in a telecom company shared confidential information about the company with a competitor which led to huge losses for the company.
 - (iii) Vodafone Co was charged with evasion of tax and asked to pay fine in cross which would lead to heavy losses for the compay.
 - (iv) Typewriters becoming redundant because of laptops,
 - (a) Which characteristics of business is being referred to in all the above cases?
 - (b) How can you classify the different cases based on this characteristic ?
16. Dhirubhai Chaurasiya operates a textile business. His family is joint and has a lot of ancestral property. All the 15 family members are a part of this business. He is the eldest male members in the family so he heads the business. He is liable to all the creditors of the business as he is the decision maker, Dhirubhai's grandson has just born a few days ago and he is also the member of the business.
- (a) Which form of business is being undertaken by Dhirubhai Chaurasiya ?
 - (b) Identify the features of this form of business based on the information given.

- (c) Textile business is part of which type of industry according to you?
17. Every day Amul collects milk from 2.12 million farmers (many illiterate) and converts the milk into branded packaged products and delivers goods all over the country. The story of Amul started in Dec, 1946 with a group of farmers keen to free themselves from intermediaries, gain access to the market and thereby ensure maximum returns for their efforts.
- (a) From the above information, identify the form of business organization used by Amul.
 (b) Also quote the line which suggests its features.
 (c) According to you, Amul is part of which type of industry ?
18. Mohan, Sohan and Ramesh are brothers living in a village. Mohan is a farmer. He grows sugar cane in his field. Sohan is a manufacturer of sugar who is doing the business with his friends Rohan Singh and Jitender. Ramesh is a transporter. He sells the sugar in the city using his truck. This year the sugar got spoiled due to heavy rain. Sohan and his friends reduced the wages of his workers to cut down their losses.
- (a) Classify the business activity undertaken by Mohan and Ramesh.
 (b) What form of business is Sohan doing with his friends. Write any two features of the form?
 (c) What type of business risk is faced by them ? Explain.
19. Rahul and Sanchal felt that there was an opportunity of business in providing a service of online grocery stores for working people. They analysed the idea in terms of technical, financial and economic liability. Once they found all the aspects satisfactory they decided to start a company called 'convenience @ home' private ltd. They got the name registered with the registrar.
- (a) Which steps of formation of company are being referred to here?
 (b) Also write the next 3 steps associated with it.
20. Lakhvinder Singh is confused as to which form of business he should follow for his garment business. You are his friend, help him by rationally discussing the different factors so that he can take a sound business action.
21. Comment on the following :-
- (i) Meeting of X Ltd. was going on, in which all the members of the company were present suddenly a natural calamity occurred and all the members of the company X Ltd. died. What would have happened to the existence of the company X Ltd. Why?
- (ii) The company being an artificial person acts through its Board of Directors. All the agreements on behalf of the company are entered by the Board of Directors. When is an agreement entered by the Board of directors not legally binding on the company.
22. Sachin's father Mahesh was running a small shop selling accessories such as artificial jewellery, hair caps etc. Over the past couple of months he has been facing a problem in managing it due to increased demand of the items. Although Sachin also helps his father but they both fail to attend all the customers due to space constraints. Non-availability of required finance acts as a hindrance in expanding their business. Sachin asks his father to join hands with Raja (his father's friend) to solve the problem. His father agreed and entered into an agreement with Raja in writing containing various terms and conditions.

- (a) Which form of business organization does Mahesh form with Raja?
 - (b) Which documents contains the written agreement specifying the terms and conditions between Mahesh and Raja?
 - (c) In which form of business organization Sachin help hi father to attend customers.
23. Sonu, a tailor by profession was working in a famous boutique in Kamla Nagar. He was a skilled worker with many years of experience at and saving worth rupees 5 lakh. He finally decided that he would start his own boutique, he rented a shop in Rohini, He was not sure about his ventures as now he would not have any security of income, But soon he started getting lot of work due to his efficiency and his profits increased.
- (a) Which type of economic activity was Sonu undertaking when he was working in a boutique.
 - (b) Which form of business organization did he opt for later?
 - (c) Identify any 2 merits and 2 demerits you can recognize of the form of business opted by him.
24. Aarti is a sole proprietor. Over the past 15 years, her business has grown from operating a neighbourhood shop selling kurtis, bags, cosmetics etc. to a retail chain with four branches in the branches , she is thinking to form a company to manage the business better. She also wants to grow further.
- (A) Explain two merits of Aarti remaining a sole proprietor.
 - (B) Explain two advantages of her converting to a joint stock co.
 - (C) If she wishes to grow further then which of the two option is better.?
25. Identify the type of partner highlighted in the following statements:
- (i) This partner doesn't take part in the day to day activities of the business.
 - (ii) He gives an impression of his being partners to others by his words or conduct.
 - (iii) He allows reuse of his goodwill to benefit the firm and can be represented as a partners.
 - (iv) He is represented as a partner and inspite of knowing this,he does not deny such impression.
 - (v) His association with the firm is not disclosed to the general public.
 - (vi) This takes active part in carrying out business of the firm.

SOCIOLOGY

Project Work:

Do the Project work on A-4 SIZE SHEETS ONLY

(1) Prepare a project file (25, A-4 sheets) on the assigned topic (enclosed in the list).

(2) Carry out the research in a detailed manner using 30 interviews, questionnaire, direct or indirect observation. The file should contain all the necessary sub-topics including analysis. Click pictures wherever necessary and show bar diagrams for analysis of responses.

General Instructions for project:-

- a) Cover page
- b) Index
- c) Acknowledgment
- d) Introduction (explaining the topic well)
- e) Statement of Purpose (what made one pick up a certain topic)
- f) Research Question or Hypothesis
- g) Methodology (definition of the method chosen, why the method is appropriate for the topic choose, advantages and disadvantages of the method)
- h) Presentation of secondary evidence such as news paper articles, magazine, articles, and so on.

SNO.	NAME OF STUDENTS	TOPICS FOR PRACTICAL PROJECT WORK
1	AYUSH SHRESTHA	CYBER BULLYING
2	ADIT RAJ	ROLE OF MEDIA DURING COVID 19
3	KANIKA	ONLINE TEACHING
4	ROHIT RANA	DIGITAL LITERACY
5	NISHANT CHAUHAN	SOCIAL DISTANCING
6	YUDHVIR	IMPACT OF SOCIAL MEDIA ON SOCIETY

POLITICAL SCIENCE

NOTE: You all have to attempt the following homework according to prescribed guidelines and the work to be completed accordingly. Read the topics properly and do the assignment neatly. This homework will be a part of internal assessment. Submission dates will be released as soon as the school reopens. It will not only enable you to recapitulate what was taught but will also help you to connect to the various learning processes.

(I) Political Science Project-

1. Explain in detail the following fundamental rights (with their Articles)

- RIGHT TO EQUALITY
- RIGHT TO LIBERTY AND PERSONAL FREEDOMS
- RIGHT TO FREEDOM OF RELIGION
- RIGHT AGAINST EXPLOITATION
- CULTURAL AND EDUCATIONAL RIGHTS OF MINORITY GROUPS
- RIGHT TO CONSTITUTIONAL REMEDY

2. Explain the Directive principles of state policy? Write about their relationship with fundamental rights ?

3. Which of the fundamental right is in your opinion the most important right? Summarise its provisions and give arguments to show why it is most important.

4. Write a short note on Fundamental Duties and Directive Principles.

General Instructions:

Prepare a project file with following guidelines:

- 1.** The total length of the project report should not be more than 15 written pages of foolscap size (A-4 size) sheet.
- 2.** The project report should be handwritten and credit will be awarded to original drawings, illustrations and creative use of eco-friendly material. It should be well researched based on facts and figures, newspaper clippings and pictures.
- 3.** The project report should be presented in a neatly bound simple folder.
- 4.** The project report should be developed and presented in this order:
 - a) Cover page showing project title, student information, school and year.
 - b) List of contents with page numbers.
 - c) Certificate page
 - d) Acknowledgements (acknowledging the institution, offices and libraries visited and persons who have helped).
 - e) Chapters with relevant headings.
 - f) Summary and conclusions based on findings.
 - g) Bibliography: should have the Title, author, publisher and if a website the name of the website with the specific website link which has been used.
 - h) Project Evaluation Report.

(II) ACTIVITY : - (Do it on An A-3 Size Sheet)

Find out about the articles, parts and schedules of Indian constitution and write about it with illustrations.

- 1.** Local Government (Roll No.1 to 8) **2.** Parliament (Roll No.9 to 16)
- 3.** Women Reservation (Roll No. 17 to 24) **4.** Right To Information (Roll No. 25 to 32)

(III) READING TASK -1. Read newspapers especially the Editorial page everyday.

2. Read more about Indian constitution and Revise the syllabus done so far.

HISTORY

- ❖ Make a project on any one of the following topics in a beautifully covered files and power point presentation on the same chosen topic: -
 - a) The story of human evolution
 - b) Cradle of civilizations – Mesopotamia
 - c) Early Empire of Rome
 - d) Genghis Khan and Mongols
 - e) Emergence of Islam and contributions of Caliphs
 - f) Industrial revolution
 - g) Displacing indigenous people

Must begin the project by including the following parameters (more than 25 pages) :

- Cover page includes – project title, student information, school and academic year .
- List of content with page number.
- Certificate page
- Acknowledgement (giving credit to those who helped you in this project)
- Project overview (brief idea about the project)
- Content sheet (10 to 12 with relevant photographs OR maps)
- Conclusion
- Bibliography (the book you read and the website you visited for the project)

Please note that the project carries 20 marks and will be assessed on the following rubrics:

- Relevance and accuracy of the content shared in the project: 5 marks
 - Creativity of Expression: 5 marks
 - Presentation of project with the help of diagrams, pictures and maps: 5 marks
 - Organization of Facts: 5 marks
- ❖ **Prepare complete syllabus for Periodic Assessment I .**

FOOD AND NUTRITION

Statistics:

1. Prepare a Questionnaire based on nutrients and their consumption by different age groups.

2. Divide the Questionnaire in the parts.

a. Personal information.

c. Consumer awareness.

3. Personal information should contain name, gender and age of the informant.

4. Consumer awareness questions should be limited.

5. No. of questions should be between 10-15

6. Explain the scope of Food & nutrition.

Creative work:

- **List out number of food items you consumed in a month. Mention their types& nutritive value. And prepare a report on their effect on your health. Prepare a file for the above purpose. (Name, class, topic name and index and objective of project are mandatory on file.)**
7. Make a comparative study on Micro VS Macro nutrients.
8. Draw a pie chart on the current situation of COVID-19. Explain how diet can be very helpful in fighting with this pandemic.
9. Draw a comparative study on India, China, and Pakistan on the spread of COVID-19. And explain why India's recovery rate is on higher side.

CREATIVE WORK:

- **Prepare one recipe from following food stuff and take pictures of you're cooking as well as ingredients.**
 - **Potato**
 - **Cottage cheese**
 - **Watermelon**
 - **Mango**
 - **Oats**
 - **Puffed rice**
 - **Rava**
- *Design PPT on above work by making slides of your recipe pictures. Best three will be awarded.*

PHYSICAL EDUCATION

A: Answer the following Questions in your Fair Notebook.

Q1. What do you understand by Physical Education?

Q2. What are functions of IOC and IOA?

Q3. Write about the various career options in Physical education

Q4 Give the field dimension and rules of game Volley Ball.

Q5. Give the field dimension and rules of game Badminton.

B: Do the following Questions in Project File with coloured Pictures and illustrations.

Q6. Make a list of records of Olympic Games and draw a track in the file with measurement.

Q7. Write down the history of Ancient and Modern Olympic Games.

Q8. Make a list of athletes who participated in Olympic Games for India.

Q9. What are the changing trends in Olympic Games

