

VERSION CODE: B2

Biology KCET-2020 Paper Analysis (Version Code: B2)		
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1. When *Escherichia coli* cells are cultured in a medium where Lactose is absent, the 'i' gene of *Lac Operon* continues to produce repressor mRNA, because it is
- (A) an operator gene (B) a constitutive gene
(C) a structural gene (D) a non-coding gene

Ans: (B)

i gene is the regulatory gene that continuously produces repressor protein. So it is synthesised all the time – constitutively.

2. For the given sequence of DNA, identify the complementary sequence of bases on its mRNA from the options given below:
- DNA 3' – ATGCATGCATGC – 5'
- (A) 5' – TACGTACGTACG – 3' (B) 3' – UACGUACGUACG – 5'
(C) 5' – GCATGCATGCAT – 3' (D) 5' – UACGUACGUACG – 3'

Ans: (D)

The direction of mRNA is 5' - 3' and the base pairing is complimentary, A – U, T – A, C – G, G – C

3. Which among the following was the biggest land dinosaur?
- (A) Tyrannosaurus rex (B) Brachiosaurus
(C) Triceratops (D) Stegosaurus

Ans: (A)

4. In a population of plants, some were extremely tall and the remaining were extremely dwarf. No plants of the population showed intermediate height. The type of operation of natural selection in the above case is
- (A) Directional (B) Stabilizing (C) Disruptive (D) Balancing

Ans: (C)

As both extreme end characters are chosen it is disruptive selection.

[Refer diagram in pg. 136, II PUC, NCERT]

5. Injection of an antidote against snakebite is an example of
- (A) Active immunity (B) Passive immunity
(C) Auto immunity (D) Innate immunity

Ans: (B)

Antivenom injection provides passive immunity as directly prepared antibodies are injected into the body for a faster action.

6. Certain tumours are called malignant, because
- (A) They invade and damage surrounding tissues.
(B) They show contact inhibition.
(C) They are not neoplastic.
(D) They are confined to specific locations.

Ans: (A)

Malignant tumors are a mass of proliferating cells called neoplastic cells that grow rapidly, invade and damage the surrounding tissues.

7. The transport of which neurotransmitter is interfered by cocaine?
- (A) Serotonin (B) GABA (C) Dopamine (D) Acetylcholine

Ans: (C)

8. In the life cycle of plasmodium, fertilisation takes place in
(A) RBCs of humans (B) Stomach of mosquito
(C) Liver cells (D) Salivary glands of mosquito

Ans: (B)

Sexual reproduction of plasmodium takes place in the gut of mosquito where male and female gametes fuse.

9. White rust resistant variety of Brassica is
(A) Pusa Swarnim (B) Pusa Shubhra (C) Pusa Komal (D) Pusa Sadabahar

Ans: (A)

10. Which of the following plant tissues cannot be used as explants in tissue culture?
(A) Parenchyma (B) Sclerenchyma (C) Collenchyma (D) Meristem

Ans: (B)

Sclerenchyma are dead cells without protoplasm.

11. The hybridisation between naturally incompatible plants like Potato and Tomato can be achieved through
(A) Somatic hybridisation (B) Conventional breeding
(C) Mutation breeding (D) Artificial pollination

Ans: (A)

Here the two isolated protoplasts are fused and then grown to form somatic hybrid like – Pomato.

12. A chilly plant was severely infected with Chilly Mosaic Virus (CMV). Identify the technique that helps to raise virus free plants in the next generation from the above virus infected plant.
(A) Meristem culture (B) Self pollination
(C) Hydroponics (D) Artificial hybridisation

Ans: (A)

The meristem (Apical and axillary) is free of virus. So we can obtain virus free plants from them.

13. In sewage treatment, secondary treatment is considered highly significant, because
(A) It reduces the BOD level of sewage.
(B) It helps in the production of biogas.
(C) It increases the organic content of sewage.
(D) It helps to remove debris from the sewage.

Ans: (A)

Before releasing it to the water body BOD has to be reduced. Sewage is not treated only to get biogas. It is treated mainly to reduce BOD.

14. Ruminant animals can digest cellulose in their food, where as human beings are unable to do so. This is because
(A) Cellulose is a complex sugar.
(B) Cellulose reduces the bulk of food.
(C) Methanogens are absent in human gut.
(D) Methanogens are present in human gut.

Ans: (C)

Methanogens are present only in the gut of herbivores.

15. From the given combinations of steps in PCR, identify the enzyme dependent step/s
(A) Annealing and denaturation (B) Denaturation and extension
(C) Extension only (D) Annealing and extension

Ans: (C)

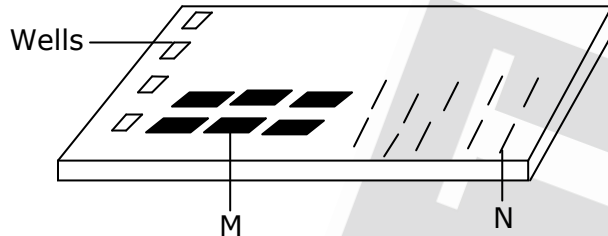
Taq polymerase enzyme is required in 3rd step Extension only.

16. Biolistics method is suitable for gene transfer into _____.
 (A) Animal cells (B) Bacteria (C) Plant cells (D) Viruses

Ans: (C)

The suitable method for plants cells are bombarded with high velocity microparticles of gold and tungsten coated with DNA in a method known as biolistics or gene gun.

17. Identify the labels M and N in the following Agarose gel electrophoresis representation.



- (A) M – Hybridised DNA bands, N – Unhybridised DNA bands
 (B) M – Largest DNA bands, N – Smallest DNA bands
 (C) M – Smallest DNA bands, N – Largest DNA bands
 (D) M – Digested DNA, N – Undigested DNA bands

Ans: (B)

M – Largest DNA bands

N – Smallest DNA bands

The DNA fragments separate according to the size through sieving effect provided by the Agarose gel. Hence, smaller the fragment size, the farther it moves.

18. In RNA interference, the dsRNA molecules prevents _____.
 (A) transport of RNA from nucleus to cytoplasm
 (B) translation of mRNA
 (C) aminoacylation
 (D) transcription of mRNA

Ans: (B)

In RNA interference the dsRNA molecule prevents translation of mRNA (silencing)

19. Now-a-days, the early diagnosis of bacterial or viral infection in humans is possible using
 (A) DNA sequencer (B) PCR (C) CT scan (D) Serum analyser

Ans: (B)

Using conventional methods of diagnosis (serum or urine analysis etc.) early detection is not possible. Early diagnosis of bacterial and viral infection in humans is possible using PCR (Polymerase Chain Reaction). Very low concentration of bacteria or virus can be detected by amplification of their nucleic acid by PCR.

20. Which of the following features of plants is not helpful in adapting to desert life?
 (A) Leaves modified into spines (B) Presence of sunken stomata
 (C) Absence of trichomes on leaf surface (D) Presence of thick cuticle on the leaf surface

Ans: (C)

Features of plants helpful in adapting to desert life are called Xerophytic adaptations. Some adaptations like leaves are modified spines – checks transpiration.

Presence of sunken stomata – checks transpiration

Presence of thick cuticle – checks transpiration

But absence of trichome on leaf surface increases the rate of transpiration. Hence it is not xerophytic adaptation.

21. In the following equation of Verhulst-Pearl logistic growth, the letter 'r' denotes_____.

$$\frac{dN}{dt} = rN \left(\frac{K - N}{K} \right)$$

- (A) Intrinsic rate of natural increase (B) Carrying capacity
(C) Population density (D) Extrinsic rate of natural increase

Ans: (A)

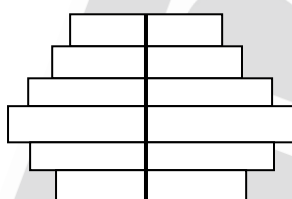
$$\frac{dN}{dt} = rN \left(\frac{K - N}{K} \right)$$

r = intrinsic rate of natural increase

K = carrying capacity

N = population density at time t

22. The shape of the pyramids reflects the growth status of the population. Identify the type of age pyramid represented below for human population.

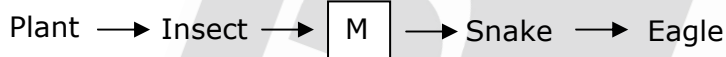


- (A) Expanding (B) Stable (C) Declining (D) Ascending

Ans: (C)

This age pyramid shows declining human population. Here pre-reproductive, reproductive age groups are very less in number. Hence it shows urn shaped pyramid.

23. Identify the possible link 'M' in the following food chain:



- (A) Wolf (B) Frog (C) Ichthyophis (D) Rabbit

Ans: (B)

Plant → Insect → Frog → Snake → Eagle

Wolf – tertiary consumer / top carnivore

Rabbit – primary consumer

[Ichthyophis – limbless amphibian not linked to grass land ecosystem]

24. The organisms which invade a bare area to initiate an ecological succession are known as

- (A) Climatic species (B) Endemic species
(C) Pioneer species (D) Key stone species

Ans: (C)

The organisms which invade a bare area to initiate an ecological succession known as pioneer species.

Eg.: Lichen in Xerarch Succession

25. Which one of the following is not included under *in-situ* conservation?

- (A) Sanctuary (B) Botanical Garden
(C) Biosphere Reserve (D) National Park

Ans: (B)

In situ conservation (on site conservation). Hence organisms conserved in these natural habitats. Eg.: Sanctuary, Biosphere reserve, national parks

Botanical garden example of ex-situ conservation where plants have taken out from their natural habitat and placed in special setting where they can be protected and given special care.

26. Which one of the following is a wrong statement?
 (A) Green house effect is a natural phenomenon
 (B) Eutrophication is a natural phenomenon in fresh water lakes
 (C) Ozone in upper part of the atmosphere is harmful to animals
 (D) Most of the forests have been lost in tropical areas

Ans: (C)

Ozone in upper part of the atmosphere is good ozone . It is found in the stratosphere. Whereas bad ozone placed in the lower atmosphere (troposphere) that harms plants and animals.

27. According to Supreme Court of India, ruling with respect to 'Bharat Stage VI' Norms, from which date, these are supposed to be implemented in the country?
 (A) 1st June, 2021 (B) 1st January, 2021
 (C) 10th December, 2020-07-30 (D) 1st April, 2020-07-30

Ans: (D)

According to Supreme Court of India, ruling with respect to "Bharat Stage VI" Norms implemented on 1st April 2020.

28. Match the following classes of Fungi (Column-I) with the examples (Column-II)

	Column-I		Column-II
(1)	Phycomycetes	(p)	<i>Penicillium</i>
(2)	Ascomycetes	(q)	<i>Alternaria</i>
(3)	Basidiomycetes	(r)	<i>Albugo</i>
(4)	Deuteromycetes	(s)	<i>puccinia</i>

Choose the correct option:

	(1)	(2)	(3)	(4)
(A)	(q)	(p)	(s)	(r)
(B)	(r)	(p)	(q)	(s)
(C)	(r)	(p)	(s)	(q)
(D)	(p)	(s)	(r)	(q)

Ans: (C)

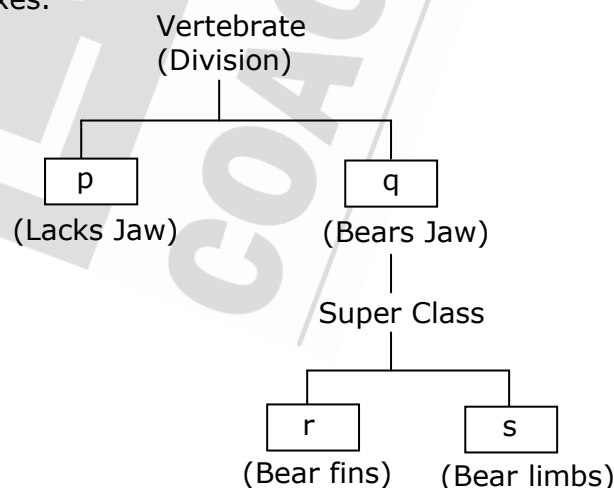
Phycomycetes – *Albugo*

Ascomycetes – *Penicillium*

Basidiomycetes – *Puccinia*

Deuteromycetes – *Alternaria*

29. Observe the following simplified scheme and choose the correct option that matched with the letters given in the boxes.

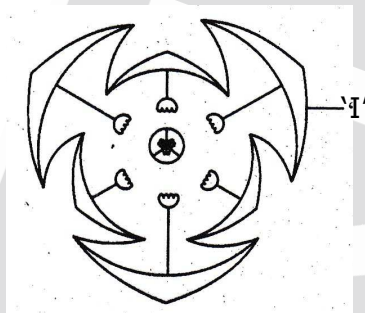


- (A) p – Gnathostomata, q – Agnatha, r – Tetrapoda, s - Pisces
 (B) p – Tetrapoda, q – Pisces, r – Gnathostomata, s – Agnatha
 (C) p – Agnatha, q – Gnathostomata, r – Tetrapoda, s – Pisces
 (D) p – Agnatha, q – Gnathostomata, r – Pisces, s – Tetrapoda

Ans: (D)

Lacks jaws – Agnatha; Bears jaws – Gnathostomata (Division)
 Bears fins – Pisces; Bears limbs – Tetrapoda (superclass)

30. Identify the floral unit 'I' in the given floral diagram.



- (A) Petal (B) Tepal (C) Perianth (D) Sepal

Ans: (B)

This floral diagram belong to the family Lilliacae. The outermost whorl is called perianth. Where petals and sepals can not be differentiated. Each single unit called as tepal.

31. A student observes grass and Hibiscus plants in his garden during noon. To his surprise, only the leaves of grass were found rolled inwards. The reason could be

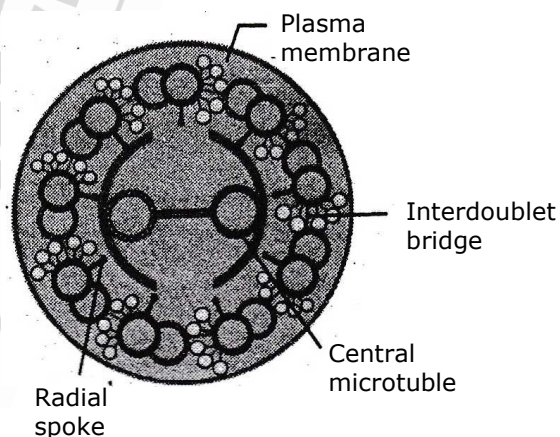
- (A) undifferentiated mesophyll in grass leaves
 (B) presence of Bulliform cells in the grass leaves.
 (C) due to higher rate of transpiration
 (D) presence of more number of stomata on the grass leaves.

Ans: (B)

Grasses have empty colourless cells on adaxial surface called as Bulliform cells. When Bulliform cells in the leaves have absorbed water and turgid, the leaf surface exposed. When they are flaccid due to water stress, they make the leaves curl inwards to minimise water loss.

32. In the below diagram, identify the part which connects the peripheral microtubules to the central sheath.

- (A) Interdoublet bridge
 (B) Central microtubule
 (C) Radial spoke
 (D) Plasma membrane



Ans: (C)

Radial spoke connects peripheral microtubules to the central sheath.

33. The element whose percentage weight is highest in both earth's crust and human body is
(A) Carbon (B) Oxygen (C) Calcium (D) Hydrogen

Ans: (B)

Oxygen (O) in earth crust is 46.6% and in human body 65%.

34. Identify the event in meiosis mediated by the enzyme recombinase.

- (A) Terminalization (B) Crossing over
(C) Interkinesis (D) Synaptic pairing

Ans: (B)

In pachytene stage, crossing over occurs between non sister chromatids of homologous chromosomes with help of enzyme recombinase.

35. The deficiency of which of these elements interrupts photolysis of water during photosynthesis?

- (A) Zn and Cu (B) Ca and K (C) N and P (D) Mn and Cl

Ans: (D)

Photolysis (water-splitting reaction) of water in photosynthesis requires manganese (Mn) and chlorine (Cl).

36. In C_4 plants, C_3 cycle takes place in

- (A) Bulliform cells (B) Companion cells
(C) Bundle sheath cells (D) Mesophyll cells

Ans: (C)

In C_4 plants, C_3 (Calvin) cycle occurs in bundle sheath cells with help of RuBisCO.

37. During Citric Acid cycle, the various organic acid undergo decarboxylation. Which of the following organic acids of the above cycle have 4C, 5C and 6C respectively?

- (A) Succinic acid, α -Ketoglutaric acid and citric acid.
(B) Pyruvic acid, Malic acid and α -Ketoglutaric acid
(C) Pyruvic acid, α -Ketogluetic acid and Citric acid
(D) Oxaloacetic acid, Citric acid and Succinic acid

Ans: (A)

4C-Succinic acid, 5C – α -ketoglutaric acid, 6C-citric acid.

38. Consider the following statements regarding photosynthesis and respiration in plants and select the correct option.

- I. RuBisCO has high affinity to oxygen in low CO_2 concentration.
II. The Calvin pathway occurs in the chloroplast of bundle sheath cells of C_4 plants.
III. Yeast poison themselves when the concentration of alcohol reaches 7%.
IV. Oxygen is a final hydrogen acceptor during aerobic respiration.
(A) Statements I & II are correct, IV is wrong.
(B) Statements I & III are correct, II is wrong.
(C) Statements I & IV are correct, III is wrong.
(D) Statements II & IV are correct, I is wrong.

Ans: (C)

Yeast poison themselves when the concentration of alcohol reaches about 13%.

39. Match the digestive glands given in Column-I with their respective enzymes given in Column-II and choose the correct combination from the given options.

	Column-I		Column-II
(1)	Pancreas	(p)	Pepsin
(2)	Gastric glands	(q)	Enterokinase
(3)	Small intestine	(r)	Ptyalin
(4)	Salivary glands	(s)	Trypsin

Choose the correct option:

- (A) (1) – (s), (2) – (p), (3) – (q), (4) – (r)
 (B) (1) – (r), (2) – (q), (3) – (p), (4) – (s)
 (C) (1) – (q), (2) – (s), (3) – (r), (4) – (p)
 (D) (1) – (p), (2) – (q), (3) – (r), (4) – (s)

Ans: (A)

Salivary amylase also known as Ptyalin.

40. Match the different types of Leucocytes (Column-I) with their percentage of occurrence (Column-II) in a healthy adult human and choose the correct answer.

	Column-I		Column-II
(1)	Neutrophils	(p)	6 – 8%
(2)	Lymphocytes	(q)	60 – 65%
(3)	Monocytes	(r)	0.5 – 1%
(4)	Basophils	(s)	2 – 3%
(5)	Eosinophils	(t)	20 – 25%

Choose the correct option:

- (A) (1) – (r), (2) – (s), (3) – (t), (4) – (q), (5) – (p)
 (B) (1) – (q), (2) – (t), (3) – (r), (4) – (s), (5) – (p)
 (C) (1) – (q), (2) – (t), (3) – (p), (4) – (r), (5) – (s)
 (D) (1) – (q), (2) – (r), (3) – (s), (4) – (t), (5) – (p)

Ans: (C)

41. In which part of the human brain corpora quadrigemina is located?

- (A) Hindbrain (B) Midbrain
 (C) Cerebral hemisphere (D) Forebrain

Ans: (B)

Mid brain has four round swellings (lobes) called corpora quadrigemina

42. A girl after attaining sexual maturity shows development of growing ovarian follicles, development of mammary glands and high pitch of voice. These changes are attributed to _____ hormones.

- (A) Estrogens (B) Progesterone (C) Androgens (D) Melatonin

Ans: (A)

Estrogen helps in sexual maturity of females.

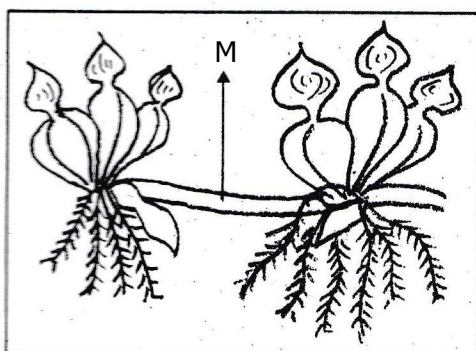
43. In apple, the chromosome number of gametes is 17. What is the chromosome number in its Primary Endosperm Nucleus (PEN)?

- (A) 68 (B) 17 (C) 51 (D) 34

Ans: (C)

Primary endosperm nucleus (PEN) is triploid (3n). Gametes are haploid (n). So $3 \times 17 = 51$.

44. Identify the vegetative propagule 'M' in the following diagram:



- (A) Offset (B) Rhizome (C) Runner (D) Bulbil

Ans: (A)

The given figure is of *Eichhornia*. Offset is a vegetative propagation structure of *Eichhornia*.

45. During an excavation of soil, Pollen fossils were retrieved from deepest layer of soil. The pollen grains remained as fossils because

- (A) Exine has spiny Ornamentation
(B) The exine of pollen grains is highly resistant to enzyme action.
(C) Pollen grains are asexual reproductive structures.
(D) The intine of pollen grains is made up of pectin.

Ans: (B)

Exine of pollen grain made up of sporopollenin. No enzyme that degrades sporopollenin is so far known. So pollen grains remains as fossils.

46. Identify the mismatch.

- (A) Zygote – Diploid (B) Synergids – Diploid
(C) Primary Endosperm Nucleus – Triploid (D) Antipodals – Haploid

Ans: (B)

When one megaspore mother cell undergoes meiosis 4 megaspores are formed. out of these 3 will degenerate 1 becomes functional megaspore as it is haploid in nature when it forms embryosac, embryosac is also haploid and nuclei of its cells also haploid. Synergids are one type of cell in embryosac.

47. Identify the correct order of events in pollen-pistil interaction from the options given below:
- I. Release of male gametes into the embryo sac.
 - II. Deposition of pollen grains on stigma.
 - III. Entry of pollen tube into embryo sac.
 - IV. Development of pollen tube
 - V. Entry of pollen tube into the Ovule.
- (A) II → IV → V → III → I (B) II → IV → III → V → I
 (C) V → IV → III → II → I (D) IV → III → II → I → V

Ans: (A)

The given statements under correct option occur sequentially in pollen-pistil interaction one after the other.

48. Match the months listed in Column-I with the organogenesis of foetus in Column-II.

Column - I		Column - II	
(i)	First month	(a)	Separation of eye lids
(ii)	Second month	(b)	Hairs on head
(iii)	Fifth month	(c)	Heart
(iv)	Six month	(d)	Limbs and digits

- (A) (i) - (b), (ii) - (c), (iii) - (d), (iv) - (a)
 (B) (i) - (d), (ii) - (b), (iii) - (c), (iv) - (a)
 (C) (i) - (c), (ii) - (d), (iii) - (b), (iv) - (a)
 (D) (i) - (c), (ii) - (d), (iii) - (a), (iv) - (b)

Ans: (C)

(i)	First month	(a)	Heart
(ii)	Second month	(b)	Limbs and digits
(iii)	Fifth month	(c)	Hair on head
(iv)	Six month	(d)	Separation of eye lids

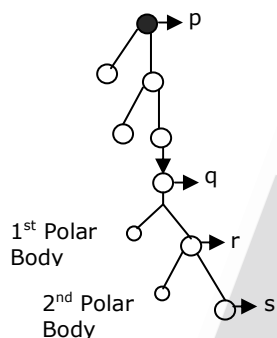
49. When the fallopian tube is blocked at ampullary region, the ovum fails to move from
- (A) Ovary to ampulla (B) Isthmus to Uterus
 (C) Infundibulum to Isthmus (D) Isthmus to infundibulum

Ans: (C)

The parts of Fallopian tube are (i) infundibulum, (ii) Ampulla, (iii) Isthmus.

Isthmus is connected to uterus. Infundibulum is nearer to ovary. Ovum released in the abdomen is sucked by infundibulum. Then it moves to ampulla, where fertilization takes place. If ampulla is blocked it fails to reach isthmus.

50. Identify the cells represented as p, q, r and s in the schematic representation of Oogenesis, shown below and choose the correct option.



- (A) p – Secondary Oocyte, q – Primary Oocyte, r – Ovum, s – Oogonia
 (B) p – Ovum, q – Secondary Oocyte, r – Primary Oocyte, s – Ovum
 (C) p – Oogonia, q – Primary Oocyte, r – Secondary Oocyte, s – Ovum
 (D) p – Ovum, q – Oogonia, r – Primary oocytes, s – Secondary Oocyte.

Ans: (C)

Oogonia → Primary Oocyte $\xrightarrow{\text{1st meiosis}}$ Secondary Oocyte $\xrightarrow{\text{2nd meiosis}}$ Ovum

51. Which of the following contraceptives could be effective in avoiding pregnancy if used within 72 hours after casual unprotected intercourse?
- (A) Testosterone - Relaxin combination
 (B) Relaxin - Oxytocin combination
 (C) Progestogen - Estrogen combination
 (D) Androgen - FSH combination

Ans: (C)

Administration of progestogens or progestogen estrogen combinations are very effective as emergency contraceptives.

52. Choose the correct statement regarding the GIFT (Gamete Intrafallopian Tube Transfer) procedure.
- (A) Zygote is collected from female donor and transferred to the fallopian tube of recipient.
 (B) Zygote is collected from a female donor and transferred to the uterus of recipient.
 (C) Ova are collected from a female donor and are transferred to the uterus of recipient.
 (D) Ova collected from a female donor are transferred to the fallopian tube to facilitate zygote formation in the recipient.

Ans: (D)

GIFT is one type of assisted reproductive technology.

53. Which of the following characters was not studied by Mendel in his Pea plant experiments?
- (A) Pod shape (B) Seed shape (C) Leaf shape (D) Stem height

Ans: (C)

Mendel has selected 7 characters in a pea plant for his hybridization experiments. They are (a) stem height, (b) Flower colour, (c) Flower position, (d) pod shape, (e) pod colour, (f) seed shape, (g) seed colour.

54. In the Organism, mutation in a single gene exhibits multiple phenotypic expressions. Identify the underlying genetic mechanism in the above instance.
- (A) Incomplete dominance (B) Polygenic inheritance
 (C) Multiple allelism (D) Pleiotropy

Ans: (D)

A single gene often influences more than one phenotypic trait. This phenomenon of multiple effects of a single gene is called pleiotropy.

Ex.: Genetic disorder *Phenylketonuria*.

55. A pure breeding pea plant with round yellow seeds was crossed with pea plant having wrinkled green seeds. On selfing of F_1 hybrid of his cross, 64 progenies were obtained in F_2 generation. Find out the number of F_2 progenies showing non-parental characters.

- (A) 4 (B) 12 (C) 24 (D) 36

Ans: (C)

Dihybrid test cross ratio is 9 : 3 : 3 : 1

3 : 3 = 6 are non-parental combinations.

Ratio \rightarrow 9 : 3 : 3 : 1 = 9 + 3 + 3 + 1 = 16

Total number of progenies = 64

So, $64 \times \frac{6}{16} = 24$

56. A man with blood group A marries a woman having blood group B. The maximum possible blood groups among their progenies are

- (A) A, B, AB (B) A, B (C) A, B, AB, O (D) AB only

Ans: (C)

The maximum possible number of progenies in a marriage between A and woman with blood B can occur when both the parents are in heterozygous state.

$\circ I^A i^O \times \text{♀ } I^B i^O$

57. The length of DNA helix in a typical nucleosome is

- (A) 1000bp (B) 3.2×10^6 bp (C) 6.6×10^9 bp (D) 200 bp

Ans: (D)

The negatively charged DNA is wrapped around the positively charged histone octamer to form a nucleosome. It contains 200 bp of DNA helix.

58. Which of the following types of RNA carries amino acids towards ribosome during translation?

- (A) dsRNA (B) tRNA (C) mRNA (D) rRNA

Ans: (B)

m-RNA carries the codon for a particular amino acid. t-RNA reads the codon with its anticodon and based on that picks up amino acids from cytoplasm and carries them towards ribosome.

59. In eukaryotes, the entire base sequence of a gene do not appear in mature RNA because

- (A) coding sequences are removed during processing.
(B) introns are removed during processing
(C) some gene sequences are removed by exonuclease.
(D) transcription in eukaryotes consumes more energy.

Ans: (B)

In eukaryotes the genes are split. Means the structural genes have the coding sequences called exons. Interrupting the exons are introns, which are non-coding. These introns are removed in a process called splicing, then the RNA becomes a matured RNA.

60. Suppose DNA samples collected for DNA fingerprinting analysis are less than the required quantity. Which of the following techniques is helpful to make the samples sufficient for above analysis?

- (A) Chromatography (B) PCR
(C) DNA probing (D) Electrophoresis

Ans: (B)

Polymerase chain reaction (PCR), a laboratory technique involves the synthesis of multiple copies of the gene (or DNA) of interest invitro.