

MOCK CET PAPER (BIOLOGY) 2

1. The plant tissues becomes woody by the process of _____

- | | |
|------------------|------------------|
| 1) Pectinisation | 2) Lignification |
| 3) Suberisation | 4) Calcification |

2. Colourblindness and haemophilia can express in females

- 1) Only in heterozygous
- 2) Only in homozygous condition
- 3) In homozygous and heterozygous condition
- 4) Under very rare circumstances

3. $\text{DNA} \xrightarrow{\text{A}} \text{DNA} \xrightleftharpoons[\text{D}]{\text{B}} \text{mRNA} \xrightarrow{\text{C}} \text{Proteins}$

- 1) A - Transcription, B - translation, C - reverse transcription, D-replication
- 2) A - Replication, B-translation, C - reverse transcription, D-transcription
- 3) A - Translation, B - transcription, C - replication, D - reverse transcription
- 4) A - Replication, B - transcription, C-translation, D - reverse transcription

4. Flame cells are the excretory structures of

- | | |
|---------------|---------------|
| 1) Nematodes | 2) Annelids |
| 3) Flat worms | 4) Arthropods |

5. Units of perianth are called

- | | |
|-----------|-------------|
| 1) Bracts | 2) Tepals |
| 3) Spathe | 4) Epicalyx |

6. Match the terms given under column-I with their meaning given under column II. Indicate the correct choice from those given below:

Column I (Terms)		Column II (Meanings)	
A	Chyme	p	Liquid food emulsion
B	Mastication	q	Chewed mass of food
C	Chyle	r	Chewing of food in the mouth
D	Bolus	s	Undigested food residue
		t	Semi liquid food

- | | |
|-----------------------|-----------------------|
| 1) A-t, B-p, C-r, D-q | 2) A-r, B-q, C-p, D-t |
| 3) A-t, B-r, C-p, D-q | 4) A-p, B-t, C-q, D-r |

7. Read the two statements and choose the correct option:

Statement A: Tikka disease in groundnut is caused by the infection of *Cercospora* sp.
Statement B: *Cercospora* is a bacterial species.

- | | |
|--|--|
| 1) Statement A is correct, B is wrong | 2) Statement B is correct, A is wrong |
| 3) Both the statements A and B are correct | 4) Both the statements A and B are wrong |

8. A cell with a ψ of -15 bars is immersed in pure water. What will be its ψ when it becomes fully turgid ?

- | | |
|--------------|-------------|
| 1) + 15 bars | 2) Zero |
| 3) + 20 bars | 4) -25 bars |

9. In _____, the entire inflorescence develops into a fruit

- | | |
|------------|--------------------|
| 1) Capsule | 2) Multiple fruit |
| 3) Cypsela | 4) Aggregate fruit |

10. A child with blood group 'O' cannot have parents of the following genotype

- 1) $I^O I^O$
- 2) $I^A I^O$
- 3) $I^B I^O$
- 4) $I^A I^A$

11. "World Environment day" is observed on

- 1) 15th July
- 2) 5th August
- 3) 5th June
- 4) 8th October

12. Match the structures present in cockroach given under column I with their functions given under column II. Choose the correct combination of the alphabets of the given two columns:

Column I (Structures)		Column II (Functions)	
A	Hepatic caecae	p	Tactile sensation
B	Malpighian tubules	q	Absorption of water
C	Antennae	r	Excretion of nitrogenous waste
D	Rectal papillae	s	Digestive enzyme secretion
		t	Respiration

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

13. A touch on left hand

- 1) Stimulates neurons in right cerebrum
- 2) Stimulates neurons in left somatosensory area
- 3) Stimulates neurons in right somatosensory area
- 4) Stimulates neurons in left cerebrum

14. Choose the correct sequence of events in the life cycle of T₄ phage

- 1) Latent stage → Infection stage → Vegetative stage → Lysis stage
- 2) Infection stage → Latent stage → Vegetative stage → Lysis stage
- 3) Vegetative stage → latent stage → Infection stage → Lysis stage
- 4) Lysis stage → latent stage → vegetative stage → infection stage

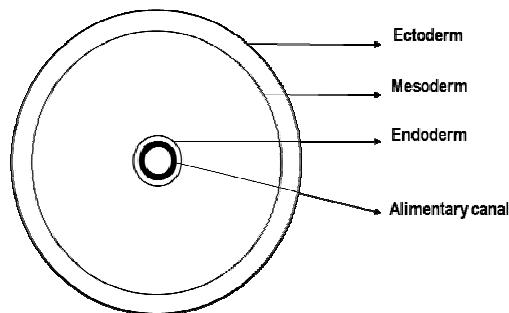
15. Read the two statements. Choose the correct option.

Statement A: Animals cells are known to be more totipotent than plant cells.

Statement B: Stem cells are obtained from the blastocyst stage of the mammalian embryo.

- 1) Statement A is correct, B is wrong
- 2) Both statements A and B are correct
- 3) Both statements A and B are wrong
- 4) Statement B is correct, A is wrong

16. The figure represents the internal body plan of



- (1) Annelids
- (2) Nematodes
- (3) Flat worms
- (4) Coelenterates

17. In the reflex arc pathway, the association neuron lies in the

- 1) Effector organ
- 2) Ganglion of dorsal root
- 3) Spinal cord
- 4) receptor organ

18. Match the phytohormones of column I with the functions given under column II. Choose the correct combination of the alphabets of the given two columns

Column I (Hormones)		Column II (Functions)	
A	Auxins	p	Delay of senescence
B	Cytokinins	q	Fruit ripening
C	Gibberellins	r	Leaf abscission
D	Ethylene	s	Apical dominance
		t	Bolting and flowering

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

19. A Haemophilic man marries normal but carries woman. The probability of their son becoming Haemophilic is

- 1) 50%
- 2) 75%
- 3) 100%
- 4) 0%

20. In the hot summer days, plant cooling occurs due to

- 1) Loss of water in liquid form
- 2) Loss of water from the entire plant surface
- 3) Translocation of water from roots to all plant parts
- 4) Loss of water vapour from the foliar surface

21. Diaphragm is made up of muscles called

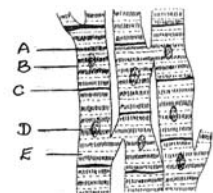
- 1) Cardiac muscles
- 2) Phrenic muscles.
- 3) Sternal muscles
- 4) Intercostal muscles

22. The bacterial cell wall is made up of

- 1) Pectocellulose
- 2) Starch
- 3) Chitin
- 4) Murein

23. In the given diagram of cardiac muscles, different parts have been indicated by alphabets. Choose the answer in which these alphabets have been correctly matched with the parts, which they indicate.

- 1) A- intercalated disc, B-dark band, C-light band, D-Sarcolenna, E-nucleus
- 2) A-light band, B-dark light, C-intercalated disc, D-nucleus, E-sarcolenna
- 3) A-Dark band, B-light band, C-intercalated disc, D-nucleus, E-sarcolenna
- 4) A-light band, B-intercalated disc, C-dark light, D-Nucleus, E-sarcolenna



24. Which of the following is a non sense codon ?

- 1) AUG
- 2) UUU
- 3) GUG
- 4) UAA

25. *Phyllanthus emblica* is the rich source of

- 1) Vitamin B
- 2) Vitamin C
- 3) Vitamin A
- 4) Vitamin D

26. The Genetic drift is also called as,

- 1) Emerson effect
- 2) Pasture's effect
- 3) Sewall Wright effect
- 4) Richmond Lang effect

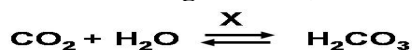
27. Which of the following is correct with respect to nephron ?

- 1) Afferent arteriole is narrower than efferent arteriole
- 2) Afferent arteriole is wider than efferent arteriole
- 3) Efferent arteriole is wider than afferent arteriole
- 4) Both afferent and efferent arterioles are of the same size

28. The process of breakdown of glycogen to glucose is called

- 1) Glucogenesis
- 2) Glycogenesis
- 3) Gluconeogenesis
- 4) Glycogenolysis

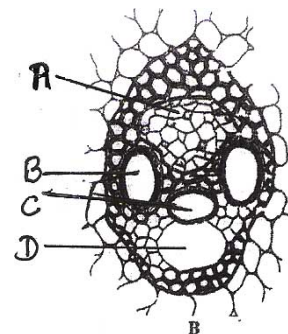
29. In the following reaction, which is X ?



- 1) Carboxylase
- 2) Hydrogenase
- 3) Carbonic anhydrase
- 4) Thrombokinase

30. In the given diagram of the vascular bundle, different parts have been indicated by alphabets. Choose the answers in which these alphabets have been correctly matched with the parts, which they indicate

- 1) A-Phloem, B-Metaxylem, C-Protoxylem, D-Lysigenous cavity
- 2) A-Metaxylem, B- Protoxylem, C- Phloem, D- Lysigenous cavity
- 3) A- Phloem, B- Protoxylem, C- Lysigenous cavity, D-Metaxylem
- 4) A- Protoxylem, B- Metaxylem, C- Phloem, D- Lysigenous cavity



31. Kranz Anatomy represents a situation where there is

- 1) Presence of agranal chloroplasts in the bundle sheath cells
- 2) Presence of granal chloroplasts in the bundle sheath cells
- 3) Presence of both granal and agranal chloroplasts in the bundle sheath cells
- 4) Absence of chloroplasts in the bundle sheath cells

32. Point out the wrong enzymatic reaction

- 1) Starch $\xrightarrow{\text{Ptyalin}}$ Maltose
- 2) Pepsin $\xrightarrow{\text{HCl}}$ Pepsinogen
- 3) Lactose $\xrightarrow{\text{Lactase}}$ Glucose + galactose
- 4) Sucrose $\xrightarrow{\text{Invertase}}$ Glucose + fructose

33. If germinating seeds are kept in a bottle which is connected with a tube containing calcium water, it will turn

- 1) Yellow
- 2) Red
- 3) Blue
- 4) White

34. Insects can be identified by the presence of

- 1) Compound eyes
- 2) Segmented body
- 3) Three pairs of legs
- 4) Chitinous exoskeleton

35. Identify the correct sequence of intermediate compounds that are produced during Krebs's cycle

- 1) Oxalosuccinic acid \rightarrow Isocitric acid \rightarrow α -Ketoglutaric acid
- 2) Isocitric acid \rightarrow Oxalosuccinic acid \rightarrow α -Ketoglutaric acid
- 3) α -Ketoglutaric acid \rightarrow Isocitric acid \rightarrow Oxalosuccinic acid
- 4) Isocitric acid \rightarrow α -Ketoglutaric acid \rightarrow Oxalosuccinic acid

36. Acrosome of the sperm is derived from

- 1) Golgi bodies
- 2) Mitochondria
- 3) Nucleus
- 4) Centrioles

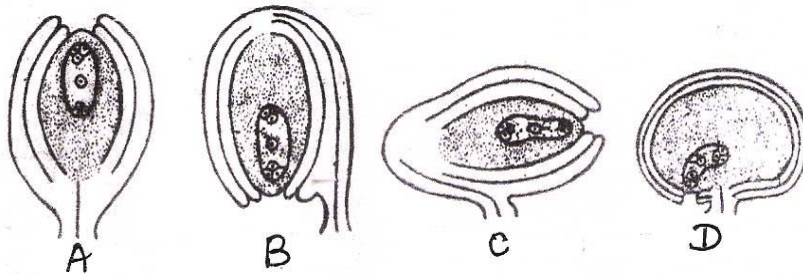
37. In split genes, the coding sequences are

- 1) Cistrons
- 2) Replicon
- 3) Exons
- 4) Introns

38. Biuret test is used to detect

- 1) Lipids
- 2) Protein
- 3) Nucleic acid
- 4) Carbohydrate

39. Which of the following is an anatropous ovule ?



- 1) A
- 2) B
- 3) C
- 4) D

40. In Opuntia, the reduced rate of transpiration is due to

- 1) Modification of leaves into spines
- 2) Sunken stomata
- 3) Thick cuticle
- 4) Multilayered epidermis

41. The juxta glomerular apparatus secretes an enzyme called

- 1) Trypsin
- 2) Pepsin
- 3) Renin
- 4) Lipase

42. What do you mean by “Vegetarian eggs” ?

- 1) A Vegetable
- 2) Fertile eggs of bird
- 3) Egg of bird fed with only vegetables
- 4) Infertile eggs produced by female bird

43. The Sylvain fissure separates

- 1) Frontal & parietal lobe
- 2) Frontal & temporal lobe
- 3) Temporal & Occipetal lobe
- 4) Occipetal & parietal lobe

44. Corpus luteum in female secretes

- 1) Ova
- 2) Oestrogen
- 3) Prolactin
- 4) Progesterone

45. The following two names are referring to the same thing

- 1) Transpiration pull theory and starch hydrolysis theory
- 2) Pressure flow theory and ascent of sap
- 3) Ascent of sap and potassium pump theory
- 4) Potassium pump theory and phytohormone theory

46. Match the item listed in column I with their functions listed in column II.

Column I		Column II	
A	Cell membrane	p	Oxidative phosphorylation
B	Mitochondria	q	Photophosphorylation
C	Contractile vacuole	r	Semipermeable
D	Ribosomes	s	Osmoregulation
		t	Protein synthesis

- 1) A-p, B-t, C-r, D-q
3) A-p, B-r, C-t, D-q

- 2) A-r, B-p, C-s, D-t
4) A-r, B-s, C-q, D-t

47. Pyruvate dehydrogenase is used to convert

- 1) Glucose to pyruvic acid
3) Pyruvic acid to Acetyl CoA

- 2) Pyruvic acid to lactic acid
4) Pyruvic acid to glucose

48. Once formed nerve cell never divides throughout its life because

- 1) It do not possess nucleus
3) It is without centrosomes

- 2) It do not possess mitochondria
4) of its length

49. Eutrophication results in the depletion of

- 1) Dissolved oxygen
3) Dissolved hydrogen

- 2) Mineral salts
4) Nitrogen

50. Presence of HCG in urine confirms

- 1) Blood group
3) Diabetes

- 2) Protein
4) Pregnancy

51. Sustentacular cells is the synonym of

- 1) Seminiferous tubules
3) Spermatozoa

- 2) Spermatogonia
4) Sertoli cells

52. Ringing experiment cannot be performed in maize plant because

- 1) Cambium is absent
3) Vascular bundles are scattered

- 2) Phloem is not well developed
4) Xylem is absent

53. G₂ phase in cycle is also called as

- 1) Pre-mitotic gap phase
3) Synthesis phase

- 2) Post-mitotic gap phase
4) Division phase

54. Phycobilins are the characteristic pigments present in

- 1) Red algae
3) Blue Green algae

- 2) Green algae
4) Brown algae

55. The total amount of water present in the soil is

- 1) Echard
3) Chesard

- 2) Holard
4) Hygroscopic water

56. Read the two statements and choose the correct option

Statement A: Increase in CO₂ concentration increases the rate of photosynthesis.

Statement B: Increase in O₂ concentration increases the rate of photosynthesis.

- 1) A is correct, B is wrong
3) Both the statements are correct

- 2) A is wrong, B is correct
4) Both the statements are wrong

57. Brunner's glands that secrete an alkaline fluid are found in the

- | | |
|-------------|---------------|
| 1) Liver | 2) Stomach |
| 3) Duodenum | 4) Oesophagus |

58. Inflammation of the nasal tract is called

- | | |
|--------------|-------------|
| 1) Asthma | 2) Rhinitis |
| 3) Carcinoma | 4) Lymphoma |

59. In which biomolecule do you find a porphyrin head and a phytol tail ?

- | | |
|-----------------|--------------------|
| 1) Mitochondria | 2) Plasma membrane |
| 3) Ribosome | 4) Chlorophyll |

60. RQ of fats is

- | | |
|--------------------|--------------------|
| 1) Unity | 2) More than Unity |
| 3) Less than Unity | 4) Infinity |
