

**MOCK TEST: CET-2020**

1. A living organism can be easily distinguished from non-living on the basis of
 - a) Responsiveness to touch stimuli
 - b) Movement and growth
 - c) Reproduction
 - d) Interaction with environment and progressive evolution
2. Which of the following classification is based in some morphological characters?
 - a) Artificial
 - b) Natural
 - c) Phylogenetic
 - d) Both (A) and (c)
3. Viral genome incorporated into host DNA is called
 - a) Prophage
 - b) Prophage
 - c) Bacteriophage
 - d) None of these
4. Pasteurization is
 - a) Heating of liquid at 65°C
 - b) Heating of liquid between 65°C to 80°C followed by rapid cooling
 - c) Heating of solid at 65°C
 - d) None of the above
5. If you are asked to classify the various algae into distinct groups, which of the following characters you should choose?
 - a) Types of pigments present in the cell
 - b) Nature of stored food materials in the cell
 - c) Structural organization of thallus
 - d) Chemical composition of the cell wall
6. Algae include unicellular forms like ...A..., filamentous like ...B... and colonial forms like ...C... . Here A, B and C refer to
 - a) A-*Chlamydomonas*, B-*Volvox*, C-*Ulothrix*
 - b) A-*Ulothrix*, B-*Volvox*, C-*Chlamydomonas*
 - c) A-*Volvox*, B-*Ulothrix*, C-*Chlamydomonas*
 - d) A-*Chlamydomonas*, B-*Ulothrix*, C-*Volvox*
7. The number of segments on the anal cerci of cockroach is
 - a) 12
 - b) 15
 - c) 18
 - d) 16
8. Which one of the following families has unicolour superior ovary?
 - a) Asteraceae
 - b) Solanaceae
 - c) Papaveraceae
 - d) Cucurbitaceae
9. The monocotyledon seeds consist of one large and shield-shaped cotyledon known as
 - a) Aleurone layer
 - b) Scutellum
 - c) Coleoptiles
 - d) Hilum
10. Interfascicular cambium is formed by the joining of
 - a) Medullary rays to xylem cambium
 - b) Medullary rays to intrafascicular cambium
 - c) Medullary rays to lateral fascicular cambium
 - d) Endodermis to intrafascicular cambium
11. Consider the following statements and choose the correct option.
 - I. The thread like cytoplasmic strands, running from one cell to other is known as plasmodesmata.
 - II. Xylem and phloem constitute the vascular bundle of the stem.
 - III. The first formed xylem elements are described as metaxylem.
 - IV. Radial vascular bundles are mainly found in the leaves.
 - a) I is true, but II, III and IV are false
 - b) II is true, but I, III and IV are false

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- c) III is true, but I, II and IV are false
d) I and II are true, but III and IV are wrong
12. Read the given statements reference to the digestive system of cockroach
- I. Alimentary canal is divided into three regions
II. Oesophagus opens into a sac like structure called crop
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- III. The hind gut is broader than mid gut
IV. The rectum opens through the anus
- Which of the statements given above is/are incorrect?
- a) I and IV
b) II and III
c) III and IV
d) None of the above
13. The transport of metabolites across the biomembrane occurs through
- a) Passive transport b) Active transport c) In case of bacteria, plasma membrane forms extensions to form special membranous structure called mesosomes d) All of the above
14. Which cell organelle is present in both prokaryotic and eukaryotic cell?
a) Ribosome b) Mitochondria c) ER d) Nucleus
15. Allosteric modulation is due to inhibition action of enzyme by
a) Competitive inhibition b) Substrate concentration
c) Products of reaction d) Enzyme concentration
16. The major event that occurs during the anaphase of mitosis, which brings about the equal distribution of chromosomes is
a) Replication of the genetic material b) Splitting of the chromatids
c) Splitting of the centromeres d) Condensation of the chromatin
17. Identify A-C in the given statements, and choose the correct option
- I. Spindle microtubules that extend from the two poles of a dividing cell are called ...A...
II. A centromere connects two identical copies of a single chromosomes. These two copies are called ...B...
III. In 'X' phase, the paired chromosomes separate and begin moving to opposite ends of the cell. This 'X' is called ...C...
- a) A-kinetochore fibres; B-sister chromatids; C-metaphase b) A-polar fibres; B-homologous chromosomes; C-Prophase c) A-polar fibres; B-sister chromatids; C-anaphase d) A-kinetochore fibres; B-asters; C-anaphase
18. Mechanism of opening and closing of stomata is controlled by

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- a) Guard cells
b) Accessory cells
c) Epidermal cells
d) None of these
19. The rate of diffusion of any substance is not affected by
a) Electrical charges of diffusing substances b) Presence of other substances in the solution c) Molecular size of substances in a solution d) Solubility to diffusing substance in lipids
20. The enzyme responsible for the reduction of molecular nitrogen to the level of ammonia in leguminous root nodule is
a) Nitrogenase b) Nitrate reductase c) Nitrite reductase d) hydrogenase
21. Who experimentally proved that source of oxygen during photosynthesis is water?
a) Van Niel b) Robin Hill c) Arnon d) Emerson
22. How many H⁺ ions are formed from 12 water molecules during non-cyclic photophosphorylation?
a) 12 b) 24 c) 36 d) 48
23. In plants, glucose is derived from which of the following?
a) Protein b) Fat c) Oxalic acid d) Sucrose
24. Which of the following substrates is used in the formation of alcohol?
a) Sucrose b) Glucose c) Galactose d) Fructose
25. Primary growth of plants is contributed by
a) Root apical meristem b) Shoot apical meristem
c) Intercalary meristem d) All of these
26. Diagram A and B indicate the shape of leaves in larkspur and buttercup respectively, choose the correct option
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- a) The juvenile and adult leaf of larkspur differ in size due to genetic and plant growth regulator factors
b) Both leaf of buttercup differ in size due to genetic and intercellular factors
c) Both larkspur and buttercup leaf size variation is due to habitat plasticity
d) None of the above
27. Pellagra is caused due to deficiency of
a) Niacin b) Pantothenic acid c) Tocopherol d) Cyanocobalamin
28. Pleural membrane is covering of
a) Heart b) Lung c) Liver d) All of these
29. Although much carbon dioxide is carried in blood, yet blood does not become acidic because
a) CO₂ is continuously diffused through the tissues and is not allowed to accumulate

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- b) CO_2 combines with water to form H_2CO_3 , which is neutralized by Na_2CO_3
c) In CO_2 transport, blood buffers play an important role
d) CO_2 is absorbed by leucocytes
30. Tachycardia is
a) Fast heart rate b) Slow heart rate c) Stop heart rate d) Normal heart rate
31. Urea synthesis occurs in
a) Kidney b) Liver c) Brain d) Muscles
32. Inner to the hilum of the kidney, there is a broad funnel-shaped space called
a) Renal pelvis b) Medulla c) Cortex d) Adrenal gland
33. Muscle fatigue is due to
a) Lactic acid b) Citric acid c) Na d) K
34. Yellow spot of eye is known for
a) Complex blood vascular system b) High pigmentation
c) Preponderance of cones d) Possession of abundant rods
35. During repolarisation of nerve
a) K^+ gate close and Na^+ gate opens
b) Na^+ channels are close and K^+ channels are opens
c) Both gates remain open
d) Both K^+ and Na^+ gates are close
36. Endocrine glands are
a) Ductless glands whose secretions pour directly into blood
b) Have ducts and pour their secretions into blood directly
c) Have ducts which straightway pour secretions into target organs
d) All of the above
37. Vegetative propagation by leaf takes place in:
a) Ginger b) *Bryophyllum* c) Rose d) *Duranta*
38. Epicotyle is the upper part of embryonal axis in
a) Monocots b) Dicots c) All plants d) All of these
39. Xenia refers to
a) Effect of pollen on endosperm b) Effect of embryo on sperm
c) Both (a) and (b) d) None of the above
40. Milk secreted from the cells of alveoli of mammary lobes reaches to the nipple by Lactiferous duct (L), Mammary duct (M), mammary Tubule (T) and mammary Ampulla (A) in following order
a) T A M L b) T M A L
c) M T A L d) A T M L
41. The figure given below depicts a diagrammatic sectional view of the female reproductive system of humans. Which one set of three parts out of A-F have been correctly identified?

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50. Marriageable age of girl and boys is
a) 21 and 24 b) 18 and 21 c) 15 and 18 d) 18 and 24
51. The largest groundnut producing country is:
a) U.S.A. b) Brazil c) India d) Burma
52. *Simonidesia chinensis* is commonly known as
a) Amla b) Poppy c) Teak wood d) Jojoba
53. Two bacteria found to be very useful in genetic engineering experiments are:
a) *Nitrosomonas* and *Klebsiella* b) *Escherichia* and *Agrobacterium*
c) *Nitrobacter* and *Azotobacter* d) *Rhizobium* and *Diplococcus*
54. RNA processing is:
a) An event that occurs after RNA transcribed b) The rejection of old, worn-out RNA
c) An event that occurs before RNA is transcribed d) Both (A) and (C)
55. Somatic hybrids are produced by
a) Protoplast fusion b) Tissue culture c) Pollen culture d) Hybridoma process
56. The aims and objectives of Genetic Engineering Approval Committee are
I. To permit the use of genetically modified organisms and their product for commercial applications
II. To adopt the procedures for restriction, production and application of GM organisms
III. approval to conduct large scale field trails and release of transgenic crops in the environment
Which of the statements are given above are correct?
a) I and II b) I and III
c) II and III d) I, II and III
57. Pattern of population results in a J-shaped curve obtained in
a) Logistic growth b) Exponential growth c) Sigmoid growth d) All of these
58. Pyramids of biomass in pond ecosystem is
a) Inverted b) Upright c) Linear d) Irregular
59. Which one is not the renewable energy of natural resources?
a) Tidal energy b) Wind energy c) Fossil fuel d) Solar energy
60. Amrita Devi Bishnoi wildlife protection award is for the individuals or communities from rural areas that have extraordinary courage in
a) Reducing greenhouse effect b) Reducing air pollution
c) Reducing global warming d) Protecting wildlife

: ANSWER KEY :

