

Question Booklet Series: **A**

Question Booklet Serial No.: **410965**

CET (UG) – 2021

Important: Please consult your Admit Card/Roll No. slip before filling your Roll Number on the Test Booklet and Answer Sheet.

Roll No.

(In Figure)

(In Words)

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O.M.R. Answer Sheet Serial No.

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Signature of Candidate: _____

Signature of Invigilator: _____

SUBJECT: BIOLOGY

Time: 70 Minutes

Number of Questions: 60

Maximum Marks: 120

DO NOT OPEN THE SEAL ON THE BOOKLET UNTIL ASKED TO DO SO.

INSTRUCTIONS:

1. Write your Roll No. on the Questions Booklet and also on the OMR Answer Sheet in the space provided and nowhere else.
2. Enter the Question Booklet Serial No. on the OMR Answer Sheet. Darken the corresponding bubbles with **Black Ball Point/Black Gel Pen**.
3. Do not make any identification mark on the Answer Sheet or Question Booklet.
4. The medium of examination shall be **English** only.
5. Please check that this Question Booklet contains **60** Questions. In case of any discrepancy, inform the Assistant Superintendent within 10 minutes of the start of Test.
6. Each question has four alternative answer (A,B,C,D) of which only one is correct. For each question, darken only one bubble (A or B or C or D), whichever you think is the correct answer, on the Answer Sheet with **Black Ball Point/Black Gel Pen**.
7. If you do not want to answer a question, leave all the bubbles corresponding to that question blank in the Answer Booklet. No marks will be deducted in such cases.
8. Darken the bubbles in the OMR Answer Sheet according to the Serial No. of the question given in the Question Booklet.
9. **Negative marking will be adopted for evaluation i.e. 1/4th of the marks of the question will be deducted for each wrong answer. A wrong answer means incorrect answer or wrong filling of bubble.**
10. For calculations, use of simple log tables is permitted. Borrowing of log tables and any other material is not allowed.
11. For rough work only the blank sheet at the end of the Question Booklet be used.
12. The Answer Sheet is designed for computer evaluation. Therefore, if you do not follow the instructions given on the Answer Sheet, it may make evaluation by the computer difficult. **Any resultant loss to the candidate on the above account, i.e. not following the instructions completely, shall be of the candidate only.**
13. After the test, hand over the Question Booklet and the Answer Sheet to the Assistant Superintendent on duty.
14. In no case the Answer Sheet, the Question Booklet, or its part or any material copied/noted from this Booklet is to be taken out of the examination hall. Any candidate found doing so would be expelled from the examination.
15. **20 minutes** extra should be given to the visually handicapped/Person with Disability (PwD) for each paper.
16. A candidate who creates disturbance of any kind or changes his/her seat or is found in possession of any paper possibly of any assistant or found giving or receiving assistant or found using any other unfair means during the examination will be expelled from the examination by the Centre Superintendent/Observer whose decision shall be final.
17. Tele-communication equipment such as Cellular phones, pager, wireless, scanner, camera or any electronic/digital gadget etc., is not permitted inside the examination hall. **Use of calculators is not allowed.**
18. The candidates will not be allowed to leave the Examination Hall/Room before the expiry of the allotted time.

(BIO - A)

1. An example of soft coral is
(A) *Tubipora* (B) *Meandrina* (C) *Fungia* (D) *Alcyonium*
2. Sea mouse belongs to phylum
(A) Chordata (B) Annelida (C) Mollusca (D) Echinodermata
3. Scientific name of sandfly is
(A) *Glossina palpalis* (B) *Drosophila* (C) *Phlebotomus* (D) Tsetse fly
4. Which of the following reptile is living fossil
(A) *Peripatus* (B) *Latimeria* (C) *Archaeopteryx* (D) *Sphenodon*
5. Which of the following cellular events does not involve actin filaments
(A) Cytokinesis in animal cell (B) Contraction of smooth muscle
(C) Flagellar movement in bacteria (D) Amoeboid movement
6. Tryptophan operon in *E. coli* has ---- structural units
(A) 3 (B) 5 (C) 7 (D) 1
7. "Portuguese man-of-war" is
(A) *Obelia* (B) *Aurelia* (C) *Platypus* (D) *Physalia*
8. The protein part of conjugated protein is called:
(A) Holoenzyme (B) Coenzyme (C) Apoenzyme (D) Prosthetic group
9. An enzyme act by
(A) Increasing the reaction time (B) Decreasing the reaction time
(C) Reducing the activation energy (D) Increasing the activation energy
10. Which organelle takes part in detoxification
(A) Lysosomes (B) Endoplasmic reticulum
(C) Mitochondria (D) Golgi body
11. Fatty acid oxidation occurs in
(A) Golgi complex (B) Peroxisomes
(C) Endoplasmic reticulum (D) Microsomes
12. Which hormone is responsible for milk ejection after the birth of the baby
(A) Oxytocin (B) Estrogen (C) Prolactin (D) Progesteron
13. Down syndrome is due to
(A) Trisomy of chromosome 21 (B) Trisomy of chromosome 18
(C) Nullisomy of chromosome 21 (D) Deletion in chromosome 18
14. Which one of the following is not a X-linked recessive disease
(A) Haemophilia (B) Thalassaemia
(C) Colour blindness (D) G-6-PD deficiency
15. Prototherians are connecting link between
(A) Amphibia and Aves (B) Reptiles and mammals
(C) Fish and amphibians (D) Reptiles and amphibians

16. Typhus fever is transmitted by
 (A) Mosquito (B) Body louse (C) Bed bug (D) House fly
17. AIDS virus has
 (A) DS DNA (B) SS DNA (C) DS RNA (D) SS RNA
18. Sarcoma is the cancer of
 (A) Epithelial tissue (B) Connective tissue (C) Blood (D) Endodermal tissue
19. LSD is obtained from
 (A) *Cannabis sativus* (B) *Erythroxylon coca*
 (C) *Claviceps purpurea* (D) *Neurospora cresa*
20. Which part of the brain is most affected by alcohol
 (A) Cerebrum (B) Cerebellum
 (C) Medulla oblongata (D) Pons varolii
21. Pancreatic juice take part in digestion of
 (A) Proteins and carbohydrates (B) Proteins, fats and carbohydrates
 (C) Proteins and fat only (D) Proteins only
22. Beri-Beri is caused by deficiency of
 (A) Vitamin B1 (B) Vitamin B12 (C) Vitamin C (D) Vitamin E
23. Maximum amount of air that our lungs can normally hold is
 (A) Vital capacity of lung (B) Total lung capacity
 (C) Pulmonary capacity (D) Tidal capacity
24. When partial pressure of CO₂ rises, the oxygen dissociation curve of haemoglobin at 37 degrees will
 (A) Shift towards right (B) Shift towards left
 (C) Remain unchanged (D) Become irregular
25. The rate of heart beat is determined by
 (A) Sino-auricular node (B) AV node
 (C) Purkinje fibres (D) Papillary muscles
26. The function of rennin is
 (A) Stimulation of corpus luteum (B) Degradation of angiotensinogen
 (C) To reduce blood pressure (D) Vasodilation
27. Which set of cranial nerves is purely of sensory nerves
 (A) I,II,VIII (B) I,II,IV (C) I,V,VI (D) I,V,VII
28. Parasympathetic nervous system
 (A) Dilates pupil of the eye (B) Accelerate heart beat
 (C) Stimulate saliva secretion (D) Release sugar from liver
29. The joint between the human skull bones is
 (A) Hinge joint (B) Synovial (C) Cartilaginous (D) Fibrous

30. Fetal sex can be determined by examining cells from the amniotic fluid by looking for
 (A) Autosomes (B) Kinetochores
 (C) Barr bodies and sex chromosomes (D) Mitochondria
31. The number of chromosomes present in the rice gamete is-
 (A) 12 (B) 16 (C) 21 (D) 24
32. In microsporangium, the developing pollen grains are nourished by-
 (A) Tapetum (B) Endothecium (C) Middle layer (D) Epidermis
33. Haemophilia may be transmitted to the male progeny through-
 (A) Normal female (B) Carrier female (C) Normal male (D) Affected male
34. Trisomy of chromosome 21 results into Down's syndrome. It is a type of-
 (A) Euploids (B) Polyploids (C) Aneuploids (D) Diploids
35. 'Kalyan Sona' is a high yielding and disease resistant variety of-
 (A) Rice (B) Cotton (C) Sugarcane (D) Wheat
36. 'Black rot of Crucifers' is a-
 (A) Viral disease (B) Fungal disease (C) Bacterial disease (D) Nematode disease
37. *Hind-II*, a restriction endonuclease recognizes a particular sequence ofbase pairs.
 (A) Eight (B) Six (C) Four (D) Two
38. Why gold micro particles are used in gene gun method to introgress alien DNA?
 (A) They are shining (B) They are hard
 (C) They are least reactive (D) They are costly
39. How many *Bt* crops have been released in India for commercial cultivation?
 (A) One (B) Five (C) Nine (D) Thirteen
40. The amount of Carbon found dissolved in the oceans is at the tune of-
 (A) 61% (B) 71% (C) 81% (D) 91%
41. Which of the following plant produce an active chemical compound, 'reserpine'?
 (A) *Rauwolfia vomitoria* (B) *Ranunculus aquatilis*
 (C) *Rubia cordifolia* (D) *Rivina humilis*
42. How many biodiversity hotspots are there in the world?
 (A) 16 (B) 25 (C) 34 (D) 43
43. Which of the following is a world's worst aquatic weed?
 (A) *Eichhornia crassipes* (B) *Phragmites karka*
 (C) *Typha latifolia* (D) *Potamogeton natans*
44. 'Chipko Movement' is associated with the protection of-
 (A) Herbs (B) Shrubs (C) Liana (D) Trees

45. The first and second parts of the biological name refer to.....
 (A) Class and genus, respectively (B) Family and class, respectively
 (C) Family and genus, respectively (D) Genus and species, respectively
46. Which of the following store proteins?
 (A) Elaioplasts (B) Aleuroplasts (C) Amyloplasts (D) Tonoplasts
47. During which stage of mitosis, the condensation of chromosomes is completed?
 (A) Prophase (B) Metaphase (C) Anaphase (D) Telophase
48. What type of leaf arrangement is present in the genus *Calotropis*?
 (A) Spiral (B) Whorled (C) Opposite (D) Alternate
49. *Selaginella* is a member of class-
 (A) Sphenopsida (B) Psilopsida (C) Pteropsida (D) Lycopsida
50. Which of the following is absent in almost all plant cells?
 (A) Centrioles (B) Peroxisomes (C) Plasma membrane (D) Middle lamella
51. Glucose.....degraded into CO₂ and H₂O in aerobic respiration.
 (A) Do not (B) Partially (C) Mostly (D) Completely
52. How much water reaching the leaves is used for photosynthesis and growth?
 (A) Less than 1% (B) Less than 5% (C) Less than 10% (D) Less than 15%
53. How many macronutrients a plant can obtain from water and carbon dioxide?
 (A) One (B) Two (C) Three (D) Four
54. Which of the following is a constituent of Nucleic Acids?
 (A) Zinc (B) Potassium (C) Copper (D) Nitrogen
55. 'Law of Limiting Factor' was given by-
 (A) Joseph Priestley (1770) (B) Julius von Sachs (1854)
 (C) Blackman's (1905) (D) George Johann Mendel (1866)
56. The arrangement in which protoxylem lies towards the periphery of root is called-
 (A) Endarch (B) Exarch (C) Mesarch (D) Diarch
57. F. W. Went, isolated a plant growth regulator called 'Auxin' from-
 (A) Oat (B) Rye (C) Maize (D) Bajra
58. In which areas, 'Lichens' do not grow?
 (A) Clean (B) Polluted (C) Dry (D) Moist
59. What happened to the catalytic activity of the enzyme in the absence of co-factor?
 (A) It is increased (B) It is decreased
 (C) It is lost (D) It remain unchanged
60. _____ inside the endodermis constitute a stele.
 (A) Pericycle, Vascular bundles & pith (B) Vascular bundles
 (C) Xylem & phloem (D) Pericycle & pith

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