

COMMON P. G. ENTRANCE TEST – 2023 (CPET-2023)

Test Booklet No. : **015**

Subject Code : **25**

Hall Ticket No. :

Subject : **MARINE SCIENCE (MARINE BIOLOGY)**

TEST BOOKLET

Time Allowed : **60 Minutes**

Full Marks : **80**

: INSTRUCTIONS TO CANDIDATES :

1. The Test Booklet contains **16** pages including the cover page and **80** (Question No. 1 to 80) multiple choice questions.
2. DO NOT break the seal of the Test Booklet until the invigilator instructs to do so.
3. The candidates must check discrepancy, if any (like up-printed or torn or missing pages or missing questions) in the Test Booklet immediately after breaking the seal of the Test Booklet. If detected, the invigilator may be requested to replace the same.
4. Candidates are required to fill up and darken the **Hall Ticket No, Test Booklet Serial No. and OMR Answer Sheet Serial No.** in attendance sheet carefully. Wrongly filled in OMR Answer Sheet is liable for rejection.
5. Each question has four choices / answers marked (A), (B), (C), (D). Candidate has to select the most appropriate choice / answer to each question and darken the oval completely against the question number provided in the OMR Answer Sheet.
6. Indicate only one choice / answer from the options provided by darkening the appropriate oval in the OMR Answer Sheet. More than one response to a question shall be treated as a wrong answer.
7. Use only **Black Ball Point Pen** for darkening the oval for answering.
8. All the questions are compulsory and they carry equal marks. The total marks scored by a candidate depends on the number of correct choices / answers darkened in the OMR Answer Sheet. There will be no negative marking for wrong answers.
9. No candidate shall be allowed to leave the Examination Hall / Room till all OMR Answer Sheets have been collected by the invigilator.
10. On completion of the entrance test, the original OMR Answer Sheet be handed over to the invigilator. Candidates are allowed to take the second copy of the OMR Answer Sheet along with the used Test Booklet for reference.
11. Candidates are not allowed to carry any personal belongings including electronic devices such as scientific calculator, cell phones, headphones, ear buds, or any other type of devices that allow communication of any kind inside the Examination Room / Hall.
12. The candidates are advised not to scribble or make any mark on the OMR Answer Sheet except marking the answers at the appropriate places and filling up the details required. Rough work, if any, may be done in the blank sheet(s) provided at the end of the Test Booklet.
13. Any malpractice / use of unfair means will lead to your disqualification from the entrance test / admission process and may also lead to appropriate legal action as deemed fit.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

PN – 25/9

(Turn over)

SEAL

013

Test Booklet No.

Test Booklet No.

Subject Code: 35

Subject: MARINE SCIENCE (MARIN- BIOLOGY)

TEST BOOKLET

Version: 01

Page: 01 of 02

INSTRUCTIONS TO CANDIDATES

The test booklet contains 100 questions. The questions are in English and Malayalam.

The test is of 1 hour duration. The questions are to be answered in the answer booklet.

The questions are of two types: Multiple Choice Questions (MCQ) and Short Answer Questions (SAQ).

The MCQs are of 1 mark each and the SAQs are of 2 marks each.

The total marks for the test are 100.

The test is to be conducted in a quiet and well-ventilated hall.

The candidates are to be allowed to use a calculator.

The candidates are to be allowed to use a ruler.

The candidates are to be allowed to use a compass.

The candidates are to be allowed to use a protractor.

The candidates are to be allowed to use a set square.

The candidates are to be allowed to use a pair of compasses.

The candidates are to be allowed to use a pair of dividers.

The candidates are to be allowed to use a pair of forceps.

The candidates are to be allowed to use a pair of pliers.

The candidates are to be allowed to use a pair of scissors.

The candidates are to be allowed to use a pair of tweezers.

The candidates are to be allowed to use a pair of needle-nose pliers.

The candidates are to be allowed to use a pair of side cutters.

The candidates are to be allowed to use a pair of wire cutters.

The candidates are to be allowed to use a pair of bolt cutters.

The candidates are to be allowed to use a pair of shears.

The candidates are to be allowed to use a pair of snips.

The candidates are to be allowed to use a pair of nibblers.

The candidates are to be allowed to use a pair of punches.

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1. Which of the following pollutants are responsible for the cause of SMOG ?
(A) From incinerators (B) Emissions from vehicles
(C) Both (A) and (B) (D) None of these
2. Which of the following gas is more in percentage in the air ?
(A) Oxygen (B) Carbon dioxide
(C) Nitrogen (D) Water vapour
3. Increased levels of air pollution results in _____.
(A) Soil erosion (B) Global warming
(C) Respiratory problem (D) All of these
4. Which of the following is considered as a green house gas?
(A) Methane (B) Nitrogen
(C) Carbon dioxide (D) Both (A) and (C)
5. Which of the following are the primary cause of water pollution
(A) Humans (B) Animals
(C) Plants (D) All the above
6. Which of the following techniques is used for reducing the total dissolved solids (TDS) in the water ?
(A) Osmosis (B) Distillation
(C) Ion exchange (D) Both (A) and (B)
7. Which of the following is a water-borne disease ?
(A) Typhoid (B) Cholera
(C) Diarrhea (D) All of these

8. Which of the following vitamin helps in blood clotting ?
- (A) Vitamin A (B) Vitamin B
(C) Vitamin C (D) Vitamin K
9. Which is the leading cause of blindness in children worldwide ?
- (A) Glaucoma (B) Vitamin A deficiency
(C) Cataracts (D) Colour blindness
10. Which of the following is a fat-soluble vitamin?
- (A) Vitamin B (B) Vitamin C
(C) Vitamin B12 (D) Vitamin K
11. Which of the following is a water-soluble vitamin?
- (A) Vitamin B1 (B) Vitamin B2
(C) Vitamin C (D) All of these
12. Who coined the term "Meiosis"?
- (A) Van Burin and Hertwig
(B) Boveri and Stuka
(C) Farmer and Moore
(D) Walleye and Hofmeister
13. The condensation of chromosome is observed in :
- (A) Prophase 1 (B) Anaphase 1
(C) Metaphase 1 (D) None of these
14. The longest stage in the cell cycle is :
- (A) Interphase (B) Anaphase
(C) Metaphase (D) None of these

15. Chromosome structure can be observed best during :
- (A) Anaphase (B) Metaphase
(C) Prophase (D) None of these
16. Plants growing under direct sunlight are known as :
- (A) Heliophytes (B) Sciophytes
(C) Psamophytes (D) Dicots
17. An orchid living on a tree exhibit :
- (A) Predator (B) Mutualism
(C) Commensalism (D) Parasitic
18. Which of the following is a turtle mass nesting site ?
- (A) Rushikulya estuary (B) Devi estuary
(C) Gahirmatha (D) All of the above
19. Which of the following requires maximum energy ?
- (A) Primary producer (B) Primary consumer
(C) Secondary consumer (D) Decomposer
20. Which of the following site is known for the largest congregation of birds ?
- (A) Bhitarkanika (B) Nalabana
(C) Similipal (D) Puri
21. The ability of a population to increase under ideal environmental conditions is called :
- (A) Natality
(B) Carrying capacity
(C) Biotic potential
(D) Absolute natality

22. In an ecosystem, the energy flow is always :
- (A) Always unidirectional
 - (B) Always bidirectional
 - (C) In any direction
 - (D) Always down directional
23. Which of the following state has distribution of horseshoe crabs ?
- (A) Maharashtra
 - (B) Gujarat
 - (C) Andhra Pradesh
 - (D) Odisha
24. A wide variety of living organisms is called :
- (A) Biodiversity
 - (B) Population
 - (C) Habitat
 - (D) Diversity
25. The animals which feed on dead and rotting organisms are called as :
- (A) Omnivorous
 - (B) Scavengers
 - (C) Carnivorous
 - (D) Herbivorous
26. In which of the following relationship, both mutual organisms are benefited ?
- (A) Commensalism
 - (B) Ammensalism
 - (C) Symbiotism
 - (D) Parasitism
27. The term ecosystem was proposed by :
- (A) Lindeman
 - (B) A. G. Tansley
 - (C) Grinnel
 - (D) Turesson

28. Which of the following is an arthropoda ?
- (A) Barnacles (B) Gastropods
(C) Bivalves (D) Polychaetes
29. Which of the following is an abiotic factor ?
- (A) Producer (B) Consumer
(C) Decomposer (D) Temperature
30. Acid rain is a result of :
- (A) Excess amount of CO_2
(B) Excess amount of NH_3
(C) Excess amount of SO_2 and NO_2
(D) Excess carbon monoxide
31. Which of the following factor plays role in respiration ?
- (A) Temperature (B) Ion
(C) pH (D) All of these
32. The amount of organic matter present at a given time per unit area is called as :
- (A) Standing crop (B) Standing quality
(C) Carbon content (D) Carbon footprint
33. Ozone layer is in :
- (A) Thermosphere (B) Mesosphere
(C) Stratosphere (D) Troposphere

34. Which of the following region of India is known as "Biodiversity Hotspot" ?
- (A) Eastern Ghats (B) Thar desert
(C) Deccan plateau (D) Western Ghats
35. Which of the following is the basic unit of study of ecology ?
- (A) Population (B) Environment
(C) Biosphere (D) Ecosystem
36. Which of the following is the largest ecosystem in the world ?
- (A) Desert ecosystem
(B) Grassland ecosystem
(C) Ocean ecosystem
(D) Forest ecosystem
37. Which of the following can be classified as an artificial ecosystem ?
- (A) Gardens (B) Forests
(C) Lakes (D) Ponds
38. Which of the following ecosystem constitutes a systematic link between terrestrial and marine ecosystem ?
- (A) Mango forest (B) Mangrove forest
(C) Evergreen forest (D) Rainforest
39. Which of the following is a National park ?
- (A) Nalabana (B) Bhitarkanika
(C) Gahirmatha (D) Lakhari
40. Who can declare an area to be constituted as a national park according to Wildlife Act ?
- (A) Supreme Court (B) High Court
(C) State Government (D) Central Government

41. Which among the following is incorrect about Amphibia?
- (A) Can live both on land and water
 - (B) Warm blooded animals
 - (C) They have a three chambered heart
 - (D) They have gills/lungs to respire
42. In chemosynthetic autotrophs energy to prepare food is obtained from :
- (A) Light energy
 - (B) Chemical energy
 - (C) Bio-energy
 - (D) Thermal energy
43. Pseudomonas adopt :
- (A) Parasitic mode of nutrition
 - (B) Heterotrophic mode of nutrition
 - (C) Saprophytic mode of nutrition
 - (D) Autotrophic mode of nutrition
44. **E.coli** is a rod-shaped bacterium present in :
- (A) Digestive tract of humans
 - (B) Respiratory tract of humans
 - (C) Urogenital tract of humans
 - (D) Excretory tract of humans
45. Bacteria reproduce by :
- (A) Sexual reproduction
 - (B) Asexual reproduction
 - (C) Sexual and asexual reproduction
 - (D) Spores
46. Which among the following is involved in the naming of the animals scientifically ?
- (A) ICBN
 - (B) ICPN
 - (C) ICAN
 - (D) ICZN

47. A binomial nomenclature consists of _____ and _____.
- (A) Generic name and Phyla
 - (B) Class and Phyla
 - (C) Generic name and specific epithet
 - (D) Phyla and Kingdom
48. Binomial nomenclature is given by :
- (A) Carolous Linnaeus
 - (B) Charles Darwin
 - (C) Henry Cavendish
 - (D) James Chadwick
49. Metabolism means :
- (A) Division of cells
 - (B) Expansion of cell
 - (C) Sum total of all chemical reactions occurring in our body
 - (D) Production of progeny
50. A reaction that takes place in laboratory rather than in a living body is called _____.
- (A) In Situ
 - (B) In Vitro
 - (C) Instant
 - (D) In house
51. Which of the following is required for photosynthesis ?
- (A) Light
 - (B) Water
 - (C) Chlorophyll
 - (D) All these
52. Animal kingdom is classified into different phyla based on :
- (A) Type of blood they have
 - (B) The presence or absence of vertebral column
 - (C) Place they live
 - (D) Food they eat

53. Bats belong to the class _____.
- (A) Chiroptera (B) Mammalia
(C) Scrotifera (D) Chordata
54. Orders are grouped to form a _____.
- (A) Family (B) Genus
(C) Class (D) Phylum
55. What is the major difference between plant cell and an animal cell ?
- (A) Cell wall
(B) Cell membrane
(C) Eukaryotic nature of cells
(D) Genetic material
56. Phylogenetic classification considers :
- (A) Morphological characteristics
(B) Embryonic structure
(C) Evolutionary relationships
(D) Ultra structure
57. Aristotle's classification contained _____.
- (A) 5 kingdoms (B) 3 kingdoms
(C) 2 kingdoms (D) 4 kingdoms
58. Linnaeus classified organisms into :
- (A) Prokaryotes and Eukaryotes
(B) Monera and Protista
(C) Bacteria and Non-bacteria
(D) Plantae and Animalia

59. Cell wall in diatoms is made of _____.
- (A) Chitin (B) Pectin
(C) Silica (D) Cellulose
60. Coenocytic means :
- (A) Sharing a common cytoplasm
(B) Removal of plasma membrane
(C) Sharing of common nucleus
(D) Sharing of common hyphael wall
61. Which of the following is not a major component of our food ?
- (A) Carbohydrate (B) Protein
(C) Lipid (D) Minerals
62. The hard chewing surface of the teeth is :
- (A) Enamel (B) Tongue
(C) Frenulum (D) Papillae
63. Which of the following organisms undergo respiration through diffusion ?
- (A) Sponges (B) Mammals
(C) Bats (D) Whales
64. Earthworms respire through organs called as _____.
- (A) Trachea (B) Cuticle
(C) Book lungs (D) Heart
65. Why is light energy used in photosynthesis ?
- (A) Reduction of H_2O
(B) Reduction of CO_2
(C) Activation of chlorophyll
(D) Oxidation of $C_6H_{12}O_6$

66. What kind of organisms are fungi ?
- (A) Saprophytes (B) Carnivores
(C) Omnivores (D) Herbivores
67. Where does the photosynthesis take place in eukaryotes ?
- (A) Mitochondria
(B) Cytoplasm
(C) Chloroplast
(D) Vacuoles
68. Which of the following gases do plants require for respiration ?
- (A) O_2 (B) CO_2
(C) N_2 (D) H_2O
69. By the use of which of the following structures, plants exchange gases ?
- (A) Stem (B) Root
(C) Bark (D) Stomata
70. Which of these is not a type of movement mainly shown by cells of the human body ?
- (A) Amoeboid (B) Ciliary
(C) Flagellar (D) Muscular
71. Where does pseudopodia arise from ?
- (A) Protoplasm
(B) Nucleoplasm
(C) Cell membrane
(D) Nuclear membrane

72. Mineral Nutrients are taken up by _____.
- (A) Leaves (B) Stems
(C) Branches (D) Roots
73. Plants lose water mainly by the process of _____.
- (A) Guttation
(B) Exudation
(C) Transpiration
(D) Evaporation
74. How much percentage of plasma is present in the blood ?
- (A) 35% (B) 45%
(C) 50% (D) 55%
75. Which of the following are needed for clotting of blood ?
- (A) Fibrinogen (B) Albumin
(C) Globulin (D) Magnesium ions
76. What is the colour of leucocytes ?
- (A) White (B) Black
(C) Red (D) Colourless
77. What does our digestive system consists of ?
- (A) Alimentary canal and associated glands
(B) Alimentary canal only
(C) Digestive glands only
(D) Mucous glands

78. How many different types of teeth are present in humans ?

(A) Two

(B) Three

(C) Four

(D) Five

79. Epiglottis is made up of which of the following tissues ?

(A) Ligament

(B) Tendon

(C) Cartilage

(D) Bone

80. What is the first step in the process of plant growth ?

(A) Seed fermentation

(B) Seed desiccation

(C) Seed germination

(D) Seed dormancy



SPACE FOR ROUGH WORK

SEAL

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