COMMON P.G. ENTRANCE TEST – 2021 (CPET-2021)

Test Booklet No.: 148550

HIGHER EDUCATION DEPARTMENT, GOVT. OF ODISHA

TEST BOOKLET

Subject Code : **31** Entrance Subject : **MARINE SCIENCE-MARINE BIOLOGY**

Time Allowed: 90 Minutes *Full Marks : 70*

INSTRUCTIONS TO CANDIDATES

1. **Please do not open this Question Booklet until asked to do so.**
2. Check the completeness of the Question Booklet immediately after opening.
3. Enter your **Hall Ticket No.** on the Test Booklet in the box provided alongside. **Do not** write anything else on the Test Booklet.
4. Fill up & darken Hall Ticket No. & Test Booklet No. in the Answer Sheet as well as fill up Test Booklet Serial No. & Answer Sheet Serial No. in the Attendance Sheet carefully. Wrongly filled up Answer Sheets are liable for rejection.
5. Each question has four answer options marked (A), (B), (C) & (D).
6. Answers are to be marked on the Answer Sheet, which is provided separately.
7. Choose the most appropriate answer option and darken the oval completely, corresponding to (A), (B), (C) or (D) against the relevant question number.
8. Use only **Blue/Black Ball Point Pen** to darken the oval for answering.
9. Please do not darken more than one oval against any question, as scanner will read such markings as wrong answer.
10. **Each question carries equal marks. There will be no negative marking for wrong answer.**
11. **Electronic items such as calculator, mobile, etc., are not permitted inside the examination hall.**
12. *Don't leave the examination hall until the test is over and permitted by the invigilator.*
13. **The candidate is required to handover the original OMR sheet to the invigilator and take the question booklet along with the candidate's copy of OMR sheet after completion of the test.**
14. Sheet for rough work is appended in the Test Booklet at the end.

1. Which blood group is called the "universal donor"?

(A) A

(B) B

(C) O

(D) AB

2. Which of the following method is used for enumeration of bacteria in vaccines and cultures?

(A) Microscopic Count

(B) Membrane filter

(C) Plate count

(D) Dry weight determination

3. A banana plant fits into which of these groups?

(A) grasses

(B) trees

(C) herbs

(D) flowers

4. How many cells present per milliliter in a bacterial culture can make the culture turbid?

(A) 1 cell

(B) 1000 cells

(C) 1 lakh cells

(D) 107-108 cells

5. Which of the following is a poisonous fish?

(A) hammerhead shark

(B) goldfish

(C) lion fish

(D) killer whale

6. Which of the following instrument is used for the bacterial count?

(A) Petroff-Hausser counting chamber

(B) Microscope

(C) Chemostat

(D) Turbidostat

7. In science, the study of classification of plants and animals is called as?

(A) taxonomy

(B) taxidermy

(C) entropy

(D) gentrification

8. Which of the following is an indirect method for measuring bacterial growth?

(A) Cell count

(B) Cell mass

(C) Cell activity

(D) Both (B) and (C)

9. Chitinous Setae are locomotory organs of annelids which are present on

(A) parapodia

(B) cell wall

(C) prostomium

(D) nucleolus

10. Which of the following method can be used to determine the number of bacteria quantitatively?

(A) Streak-plate

(B) Spread-plate

(C) Pour plate

(D) Pour-plate and spread plate

11. Body of mammals is covered by

(A) feathers

(B) hairs

(C) scales

(D) fins

12. Which part of the compound microscope helps in gathering and focusing light rays on the specimen to be viewed?

(A) Eyepiece lens

(B) Objective lens

(C) Condenser lens

(D) Magnifying lens

13. An example of marine colonial that exhibits alternation of generations is

(A) star fish

(B) obelia

(C) jelly fish

(D) sea urchin

14. Which among the following are produced by microorganisms?

(A) Fermented dairy products

(B) Breads

(C) Alcoholic beverages

(D) All the above

15. Daphnia belongs to class

(A) Arachnida

(B) Myriapodia

(C) Crustacean

(D) Plantae

16. Growth of microbes in a solid media is identified by the formation of?

(A) pellicle at the top of media

(B) colonies

(C) sediment at the bottom

(D) turbidity

17. Which Bone(s)is/are found in the ear of mammals

(A) Malleus

(B) Ineus

(C) staples

(D) All of Above

18. Which microorganism(s) among the following perform photosynthesis by utilizing light?

(A) Cyanobacteria

(B) Fungi

(C) Viruses

(D) Cyanobacteria and Fungi

19. Sharks and rays are present in group of class

(A) Chondrichthyes

(B) Osteichthyes

(C) Plasteichtyes

(D) Qochtyes

20. Anthramycin is which of the following type of antibiotic?

(A) Antiviral

(B) Antitumor

(C) Antifungal

(D) Antibacterial

21. Balanoglossus belongs to phylum

(A) radiate

(B) bilateria

(C) fungi

(D) hemichordate

22. Which of the following is the most accurate method for microbial assay of antibiotics?

(A) Physical assay

(B) Chemical assay

(C) Biological assay

(D) Chemical and biological assay

23. Leaf which is large in size with divided vein and veinlets with expanded lamina is called

(A) aphyll

(B) macrophyll

(C) microphyll

(D) megaphyll

24. The most common old method of fish preservation is

(A) Chilling

(B) Sun drying

(C) Smoking

(D) Salting

25. Mold Pencillium was discovered by

(A) Alexander Fleming

(B) Louis Pasteur

(C) Charles Darwin

(D) Chaim Weizmann

26. Which one of the following is not a fishing gear?

(A) Net trap

(B) Hook

(C) Seines

(D) Craft

27. Pneumatophores are the

A. special spores produced in times of drought

B. special breathing roots

C. thick coverings on the epidermis of leaves and shoots

D. types of stomata helping reduce the rate of transpiration

28. Which one is not a marine fish?

(A) Pomphret

(B) Sardine

(C) Catla

(D) Mackerel

29. Water where fresh and sea water mix is known as

(A) brackish water

(B) blackish water

(C) intermingling water

(D) stagnant water

30. Pisciculture is rearing and production of

(A) Fishes

(B) Birds

(C) Reptiles

(D) Wool yielding animals

31. Induced breeding technique is used in

(A) Marine fishery

(B) Capture fishery

(C) Culture fishery

(D) Inland fishery

32. If more than single species of fish is cultured at a time, then it is called

(A) monoculture

(B) aquaculture

(C) mariculture

(D) polyculture

33. Carbon dioxide (CO_2) is released to atmosphere through

(A) respiration

(B) combustion

(C) decay

(D) all of these

34. Pearl can be obtained from which species

(A) *Pinctada margaritifera*

(B) *Rastrelligerkanagurta*

(C) *Pernaviridis*

(D) *Halophila ovalis*

35. Animals living in sea water tend to loose water through

(A) osmosis

(B) active transport

(C) gills

(D) diffusion

36. Migration from fresh water to marine water for reproduction is known as–

(A) anadromous

(B) catadromous

(C) amphidromous

(D) potamodromus

37. More energy is available if man feeds

(A) directly on plants

(B) on fish

(C) on meat

(D) on quartenary consumers

38. Tapti estuary is located in the state of

(A) Odisha,

(B) Maharashtra,

(C) Karnataka,

(D) Gujarat

39. Plasmodium resides in mosquito's

(A) proboscis

(B) liver

(C) stomach

(D) all of these

40. Which is the Asia's largest brackish water lagoon

(A) Chilika lagoon,

(B) Vembnand lake,

(C) Pulicat lake,

(D) Hukitola lake

41. In any ecosystem, ultimate source of energy is

(A) plants as primary consumers

(B) sun as radiant energy

(C) secondary consumer

(D) heterotrophy

42. Which of the following is the Indian edible oyster

(A) *Pernaviridis*

(B) *Crassostrea madrasensis*

(C) *Vanmalitterata*

(D) *Sepia aculeata*

43. Primary consumers are

(A) plants

(B) herbivores

(C) carnivores

(D) cat family

44. Which is the National aquatic animal of India?

(A) River dolphin,

(B) Sea cow,

(C) Hippocampus,

(D) None of the above

45. Ability to withstand fluctuations in salt concentration is more in

(A) fresh water organisms

(B) sea water organisms

(C) brackish water organisms

(D) muddy water organisms

46. Chinese dip nets are most common in

(A) West Bengal,

(B) Gujarat,

(C) Andhra Pradesh,

(D) Kerala

47. Due to salt concentrations, aquatic animals are confronted with

(A) feeding problems

(B) breathing problems

(C) excretory problems

(D) osmotic problems

48. Inland fisheries are

(A) deep sea fishing

(B) oil extraction from fish

(C) capturing fishes in fresh water

(D) capturing fishes from sea coast

49. Organs producing reproductive cells are called as

(A) gametes

(B) gonads

(C) globules

(D) glands

50. Chloroplasts of algae embedded in the midst of the cytoplasm is known as

(A) parietal

(B) asteroidal

(C) central

(D) peripheral

51. Restriction enzymes were discovered by

(A) Smith and Nathans,

(B) Alexander Fleming

(C) Berg

(D) None

52. ELISA is

(A) Using radiolabelled second antibody

(B) Usage of RBCs

(C) Using complement-mediated cell lysis

(D) Addition of substrate that is converted into a coloured end product

53. PCR technique was invented by

(A) Karry Mullis

(B) Boyer

(C) Sanger

(D) Cohn

54. Which of the following is a product of biotechnology?

(A) Bacteria

(B) Skin

(C) Vaccine

(D) Plants

55. Making multiple copies of the desired DNA template is called

(A) cloning

(B) transferring

(C) r-DNA technology

(D) genetic engineering

56. In genetic engineering, restriction enzymes cleave the DNA at a specific site known as

(A) restriction

(B) recognition

(C) promoter

(D) sense

57. The sequence of DNA from where replication starts is called

(A) selectable marker

(B) origin of replication

(C) ter sequence

(D) genetic sequence

58. The process by which a foreign DNA is introduced into bacteria is called

(A) amplification

(B) transformation

(C) infection

(D) digestion

59. The molecule which dissolves in water is called

(A) hydrophilic molecule

(B) hydrophobic molecule

(C) soluble molecule

(D) insoluble molecule

60. The method by which recombinant DNA is directly injected into the nucleus of an animal cell is called

(A) heat-shock

(B) micro-injection

(C) transferring

(D) insertional inactivation

61. What is the feature of the biosphere?

(A) No diversity

(B) Homogeneity

(C) Heterogeneity

(D) Negligible diversity

62. How many years did evolution required?

(A) Tens

(B) Hundreds

(C) Trillions

(D) Millions

63. What does IUCN stand for?

(A) International Union for Control of Disease

(B) International Union for Conservation of Nature

(C) International Unit of Nucleic acids

(D) International Union of Carbohydrates and Nucleic acids

64. Which is the most species-rich taxonomic group?

(A) Molluscs

(B) Crustaceans

(C) Echinoderms

(D) Insects

65. Of all the vertebrate species recorded which class has the maximum number of species?

(A) Amphibians

(B) Mammals

(C) Fishes

(D) Reptiles

66. What happens to species diversity as we move away from the equator towards the poles?

(A) Increase

(B) Decreases

(C) Unchanged

(D) Same

67. Which energy available in the tropics contributes to higher productivity?

(A) Water

(B) Fossil fuel

(C) Wind

(D) Solar

68. For what reason is rich biodiversity important?

(A) Community issues

(B) Ecosystem health

(C) Ecological issues

(D) Community problems

69. Who gives the Red List of species?

(A) NSS

(B) IUCN

(C) WHO

(D) NCC

70. What can be visualized as a functional unit of nature?

(A) Humans

(B) Ecosystem

(C) Vehicles

(D) Plants

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