

HIGHER EDUCATION DEPARTMENT, GOVT. OF ODISHA

TEST BOOKLET

Subject Code : 58

Entrance Subject: WILDLIFE AND BIODIVERSITY CONSERVATION

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. There are four major causes of accelerated rates of species extinction, which are collectively called as the “evil quarter”. Which one of the following is not included in the “evil quarter”.
  - (A) Over exploitation
  - (B) Pollution
  - (C) Co-extinctions
  - (D) alien species invasions
2. An exotic species that is introduced to a new area, spreads rapidly and eliminates native species is called
  - (A) Immigrant species
  - (B) Invasive species
  - (C) Destructive species
  - (D) None of these
3. India constitutes -----percent of the world’s land area and contributes -----of the global species diversity.
  - (A) 1.0, 5.5
  - (B) 5.5, 1.0
  - (C) 8.1, 2.4
  - (D) 2.4, 8.1
4. The diversity of organisms sharing the same habitat or community is termed as
  - (A) Alpha diversity
  - (B) Beta diversity
  - (C) Gamma diversity
  - (D) Delta diversity
5. Species diversity -----as one move from high to low altitudes
  - (A) Increases
  - (B) Decreases
  - (C) First increase then decreases
  - (D) First decreases then increases

6. India is one of the 12 mega diversity centers of the world and is divided into ----- biogeographic regions.
- (A) 8
  - (B) 10
  - (C) 16
  - (D) 18
7. Organization responsible for maintaining Red Data Book is
- (A) IUCN
  - (B) WWF
  - (C) CITES
  - (D) IBWL
8. Alpha diversity is known as biodiversity present
- (A) Within community
  - (B) Between communities
  - (C) Ranges of communities
  - (D) None of these
9. Western Ghats have greater number of amphibian species than the Eastern Ghats. What kind of diversity does it represent?
- (A) Species diversity
  - (B) Genetic diversity
  - (C) Ecological diversity
  - (D) None of these
10. ----- National Park is the first National Park of India.
- (A) Jim Corbet
  - (B) Nanda Devi
  - (C) Kaziranga
  - (D) Jaldapara

11. Which of these is not included in the biodiversity hot spots of India
- (A) Western Ghats
  - (B) Himalayas
  - (C) Indo-Burma
  - (D) North Indian Plants
12. Select the incorrectly matched pair
- (A) UNESCO = United Nations Educational Scientific and Cultural Organization
  - (B) CITES = Convention in International Trade in Elite Species
  - (C) IUCN= International Union of Conservation for Nature and Natural Resources
  - (D) WWF = World Wide Fund for Nature
13. First Biosphere Reserve in India was established in 1986 at
- (A) Nilgiri
  - (B) Nanda Devi
  - (C) Rann of Kutch
  - (D) Sunderbans
14. Nandadevi biosphere reserve is found in
- (A) Uttaranchal
  - (B) Assam
  - (C) Himachal Pradesh
  - (D) Andhra Pradesh
15. Cryopreservation is the preservation of germplasm at very low temperature of around
- (A)  $-121^{\circ}\text{C}$
  - (B)  $-196^{\circ}\text{C}$
  - (C)  $0^{\circ}\text{C}$
  - (D)  $-101^{\circ}\text{C}$
16. Biodiversity Act of India was passed by the parliament in the year
- (A) 1992
  - (B) 1996
  - (C) 2000
  - (D) 2002

17. Biosphere reserves differ from National Parks and Wildlife Sanctuaries because in the former
- (A) Human beings are not allowed to enter
  - (B) People are an integral part of the system
  - (C) Plants are paid greater attention than the animals
  - (D) Living organisms are brought from all over the world and preserved for posterity.
18. In India Air (Prevention and control of pollution) Act came into force in the year 1981, but was amended in the year ----- to include ----- as an air pollutant.
- (A) 1990, noise
  - (B) 1984, particulate matter
  - (C) 1987, PAN
  - (D) 1987, noise
19. Which of the following is the most dangerous metal pollutant of automobile exhaust?
- (A) Cadmium
  - (B) Copper
  - (C) Mercury
  - (D) Lead
20. Acid rains are produced by
- (A) Excess  $\text{NO}_2$  and  $\text{SO}_2$  from burning fossil fuels
  - (B) Excess production of  $\text{NH}_3$  by industries and power plants
  - (C) Excess release of carbon monoxide by incomplete combustion of fossil fuels
  - (D) Excess release of  $\text{CO}_2$  by combustion and animal respiration
21. Lichens are the indicators of
- (A) Water pollution
  - (B) Air pollution
  - (C) Soil pollution
  - (D) All of these
22. Chlorofluorocarbons are air polluting agents which are produced by
- (A) Diesel trucks
  - (B) Jet planes
  - (C) Rice fields
  - (D) Cellphones

23. Peroxyacyl nitrates (PAN) are formed through photochemical reactions between
- (A) Sulphur oxides and hydrocarbons
  - (B) Nitrogen oxides and hydrocarbons
  - (C) Nitrogen oxides and  $O_3$
  - (D)  $CFCl_3$  and  $O_3$
24. Greenhouse effect is due to
- (A) Accumulation of  $O_3$  and depletion of  $CO_2$
  - (B) Accumulation of both  $O_3$  and  $CO_2$
  - (C) Accumulation of  $CO_2$  and depletion of  $O_3$
  - (D) Presence of green plants on the earth
25. The major ozone depleting substance out of the following is
- (A) CFCs
  - (B)  $O_2$
  - (C) Nitrogen
  - (D) All of these
26. Montreal Protocol is associated with
- (A) Control of emission of ozone depleting substances
  - (B) Control of radioactive wastes
  - (C) Control of desertification
  - (D) Protection and management of forests
27. Ozone layer of upper atmosphere is being destroyed by
- (A) Chlorofluorocarbons
  - (B)  $SO_2$
  - (C)  $O_2$  and  $CO_2$
  - (D) Smog
28. Which one of the following is the most productive ecosystem?
- (A) Temperate forest
  - (B) Grassland
  - (C) Desert
  - (D) Tropical rain forest

29. Which one of the following aspects is not a component of functional unit of ecosystem?
- (A) Productivity
  - (B) Decomposition
  - (C) Energy flow
  - (D) Ecological pyramids
30. ----- is the rate of production of organic matter by consumers.
- (A) Primary productivity
  - (B) Secondary productivity
  - (C) Net primary productivity
  - (D) Gross primary productivity
31. The biomass available for consumption by the herbivores and decomposers is called
- (A) Net primary productivity
  - (B) Secondary productivity
  - (C) Standing crop
  - (D) Gross primary productivity
32. Which one of the following exhibits least productivity?
- (A) Salty marshes
  - (B) Grasslands
  - (C) Open oceans
  - (D) Coral reefs
33. Rate of decomposition depends upon
- (A) Chemical composition of detritus
  - (B) Temperature
  - (C) Soil moisture and soil pH
  - (D) All of these

34. Decomposers are also called as
- (A) Transducers
  - (B) Reducers
  - (C) Micro-consumers
  - (D) Both reducers and micro-consumers
35. Organisms which are associated with first as well as third trophic level are
- (A) Macrophytes
  - (B) Phytoplanktons
  - (C) Chemoautotrophs
  - (D) Insectivorous plants
36. Artificial systems of classification were based upon
- (A) Vegetative characters
  - (B) Androecium structure
  - (C) Habit and habitat
  - (D) All of these
37. ----- systems of classification were based on natural affinities among the organisms
- (A) Artificial
  - (B) Natural
  - (C) Phylogenetic
  - (D) Sexual
38. Which out of the following are included under tracheophyta i.e. vascular plants?
- (A) Pteridophytes
  - (B) Gymnosperms
  - (C) Angiosperms
  - (D) All of these



39. System of classification that employs numerical data to evaluate similarities and differences is known as
- (A) Cytotaxonomy
  - (B) Biosystematics
  - (C) Phenetics
  - (D) Chemotaxonomy
40. A system of classification in which a large number of traits are considered is
- (A) Artificial system
  - (B) Phylogenetic system
  - (C) Synthetic system
  - (D) Natural system
41. Each character is given equal importance and at the same time hundreds of characters can be considered in
- (A) Cytotaxonomy
  - (B) Morphotaxonomy
  - (C) Chemotaxonomy
  - (D) Numerical taxonomy
42. At least a half of the total CO<sub>2</sub> fixation on earth is carried out through photosynthesis by
- (A) Angiosperms
  - (B) Gymnosperms
  - (C) Algae
  - (D) Bryophytes
43. In most green algae, pyrenoids represent the storage bodies located in
- (A) Chloroplast
  - (B) Mitochondria
  - (C) Cytoplasm
  - (D) Nucleus

44. Fusion of two gametes which are dissimilar in size is termed as
- (A) Oogamy
  - (B) Isogamy
  - (C) Anisogamy
  - (D) Both (A) and (C)
45. Phycoerythrin is present in
- (A) Euglena
  - (B) Polysiphonia
  - (C) Chlamydomonas
  - (D) Fucus
46. Agar-agar is commercially obtained from
- (A) Green algae
  - (B) Blue green algae
  - (C) Brown algae
  - (D) Red algae
47. Unbranched, erect, cylindrical stout axis with distinct nodes and internodes, and with jointed appearance is called as
- (A) Runner
  - (B) Sucker
  - (C) Culm
  - (D) Caudex
48. ----- are the green stems of limited growth which have taken over the function of photosynthesis from leaves.
- (A) Phylloclades
  - (B) Cladodes
  - (C) Phyllodes
  - (D) Stem thorns

49. In Bougainvillea, weak stems rise up a support by clinging to it with the help of curved thorns, such plants are called as
- (A) Tendrils
  - (B) Hooks
  - (C) Offsets
  - (D) Scramblers
50. In Opuntia the function of photosynthesis is carried out by
- (A) Cladode
  - (B) Phyllode
  - (C) Phylloclade
  - (D) Stipules
51. Which plant part is modified into pitcher in pitcher plants?
- (A) Root
  - (B) Stem
  - (C) Leaf
  - (D) Flower
52. Spines present on the areoles of Opuntia represent
- (A) Stem
  - (B) Leaves
  - (C) Buds
  - (D) Phyllodes
53. Which of the following kinds of venation is present in banana?
- (A) Reticulate unicostate
  - (B) Reticulate multicostate
  - (C) Parallel unicostate
  - (D) Parallel multicostate

54. If the gynoecium is present in the top most position of the thalamus, the flower is referred to as
- (A) Hypogynous
  - (B) Perigynous
  - (C) Epigynous
  - (D) None of these
55. In ----- placentation, a monocarpellary ovary bears a single longitudinal ovule along the junction of two fused margins.
- (A) Axile
  - (B) Parietal
  - (C) Free central
  - (D) Marginal
56. Ovary is said to be half inferior in which of the following conditions?
- (A) Hypogynous
  - (B) Perigynous
  - (C) Epigynous
  - (D) Both (B) and (C)
57. Edible part of apple and pear is
- (A) Epicarp
  - (B) Mesocarp
  - (C) Endocarp
  - (D) Thalamus
58. Monocotyledonous seeds possess a single cotyledon which is represented by
- (A) Tegmen
  - (B) Endosperm
  - (C) Scutellum
  - (D) Aleurone
59. Root cap in monocots is formed by
- (A) Dermatogen
  - (B) Calyptrogen
  - (C) Vascular cambium
  - (D) Wound cambium

60. ----- is a living mechanical tissue
- Parenchyma
  - Collenchyma
  - Sclerenchyma
  - Both 'A' and 'B'
61. Which of the following have porous body and are diploblastic?
- Aurelia and Obelia
  - Adamsia and Euplectella
  - Leucosolenia and Spongilla
  - Sycon and Hydra
62. Which of the following is not a characteristic feature of sponges?
- Cellular level of organization
  - Presence of ostia
  - Intracellular digestion
  - Body supported by chitin
63. What is true about Nereis, scorpion, cockroach and silver fish?
- They all possess dorsal heart
  - None of them is aquatic
  - They all belong to the same phylum
  - They all have jointed pair appendages
64. Bilateral symmetry, metameric segmentation, coelom and open circulatory system characterizes which of the following phylum?
- Annelida
  - Mollusca
  - Arthropoda
  - Echinodermata
65. In which of the following, segmentation in the body is first observed?
- Aschelminthes
  - Arthropoda
  - Annelida
  - Platyhelminthes

66. Among the following organisms which is a completely non parasitic form?
- (A) Sea anemone
  - (B) Tapeworm
  - (C) Leech
  - (D) Mosquito
67. The limbless amphibian is
- (A) Ichthyophis
  - (B) Hyla
  - (C) Rana
  - (D) Salamandra
68. Which of the following is a transparent tissue
- (A) Tendon
  - (B) Fibrous cartilage
  - (C) Hyaline cartilage
  - (D) All of these
69. Which of the following cells do not form layer and remain structurally separate?
- (A) Epithelial cells
  - (B) Muscle cells
  - (C) Nerve cells
  - (D) Gland cells
70. Which one of the following contains the largest quantity of extracellular material?
- (A) Striated muscle
  - (B) Areolar tissue
  - (C) Stratified epithelium
  - (D) Myelinated nerve fibres

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