

HALF YEARLY EXAMINATION - 2023

MODEL QUESTION PAPER - 1

12 - Std ZOOLOGY

Time Allowed: 3.00 Hrs

Maximum Marks: 70

Instructions: 1. Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.

2. Use Blue or Black ink to write and underline and pencil to draw diagrams.

PART - I

Note: i) Answer all the questions.

15 X 1 = 15

ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

1. The foetal membrane that forms the basis of the umbilical cord is
a. Allantois b. Amnion c. Chorion d. Yolk sac
2. Meselson and Stahl's experiment proved
a. Transduction b. Transformation c. DNA is the genetic material d. Semi-conservative nature of DNA replication
3. The mode of reproduction in bacteria is by
a. Formation of gametes b. Endospore formation c. Conjugation d. Zoospore formation
4. On an average about ----- litres of wastewater is generated by an Indian individual daily.
a. 120 b. 130 c. 160 d. 150
5. The organization which published the red list of species is
a. WWF b. IUCN c. ZSI d. UNEP
6. Humidity is measured with -----.
a. Hydrometer b. Barometer c. Anemometer d. Hygrometer
7. The phenomenon of "Industrial Melanism" demonstrates,
a. Natural selection b. induced mutation c. reproductive isolation d. geographical isolation
8. Lactational amenorrhoea is a ----- method of birth control.
a. Hormonal b. natural c. chemical d. mechanical
9. The sporozoite of the malarial parasite is present in ----
a. saliva of infected female Anopheles mosquito. b. RBC of human suffering from malaria. c. Spleen of infected humans. d. Gut of female Anopheles mosquito.
10. Anaphylactic shock is due to

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- a. Allergic reaction b. Secretion of toxins c. Secretion of histamines d. All the above
11. Breast milk alone is fully sufficient for -----
a. 3 months b. 10 months c. 6 months d. 12 months
12. ----- states that birds and mammals in colder regions attain greater body size, than those in warmer regions.
a. Allen's rule b. Bergmann's rule c. Jordon's rule d. Van't Hoff rule
13. ----- is the main pollutant that leads to global warming.
a. CO b. SO₂ c. NO₂ d. CO₂
14. Fossils are generally found in -----
a. Igneous rocks b. sedimentary rocks c. volcanic rocks d. metamorphic rocks
15. Cyclosporin A is an immunosuppressant produced from
a. Trichoderma polysporum b. Penicillium notatum c. Aspergillus niger d. Monascus purpureus

PART – II

Note: answer any six of the following. Q. no. 24 is compulsory. 6×2 = 12

16. What is exogenous budding? Give example.
17. Define gametogenesis.
18. What do you mean by ART?
19. What are operons? Where are they present?
20. How does Neanderthal man differ from the modern man in appearance?
21. What do junk foods have? Mention the harmful effects of eating junk foods.
22. Define super bug.
23. Define endemism.
24. Saccharomyces cerevisiae is more suitable for production of recombinant interferons than E. coli. justify.

PART – II

Note: answer any six of the following. Q. no. 33 is compulsory. 6×3 = 18

25. Write the preventive measures of STDs.
26. What is Kin selection?
27. Say about Nipah virus.
28. Draw the structure of lymph node.
29. How is Streptococcus beneficial to treat heart patients?
30. Explain hibernation and aestivation with examples.
31. Give reasons for the dwindling population of sparrows?
32. What are some solutions to toxic dumping in our oceans.
33. Say about the application of ELISA.

PART – IV

Note: Answer all questions.

5×5 = 25

34. (a) What is the role of extra embryonic membranes in the maintenance of pregnancy and embryonic development?

OR

(b) Explain briefly about the Intra Uterine Devices.

35. (a) Explain point mutation with an example.

OR

(b) Enumerate the steps involved in DNA finger printing.

36. (a) Taking the example of Peppered moth, explain the action of natural selection.

OR

(b) Explain the life cycle of malarial parasite in mosquito with a diagram.

37. (a) What are the types of vaccines? Explain in detail.

OR

(b) Explain how recombinant insulin can be produced.

38. (a) Say briefly about the types of interspecific interactions.

OR

(b) Mention the effects of air pollution.