

Class : 12Register
Number**COMMON HALFYEARELY EXAMINATION - 2022 - 23**

Time Allowed : 3.00 Hours

**ZOOLOGY
PART - I**

[Max. Marks : 70]

Note : I) Answer all the questions.

15×1=15

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

- Kin selection is seen in
(a) honey bees (b) *Drosophila* (c) Grasshopper (d) Cockroach
- External fertilization is seen in
(a) Mammals and birds (b) Reptiles and sponges
(c) Fishes and birds (d) Sponges and amphibians
- Assertion (A) : The process of oogenesis must get completed before fertilization.
Reason (R) : The egg after meiosis II is ready for fertilization.
(a) A and R are true, R is the correct explanation of A.
(b) A and R are true, R is not the correct explanation of A.
(c) A is true, R is false
(d) Both A and R are false
- The word 'gene' was coined by
(a) Johannsen (b) Mendel (c) Sultan (d) Alt man
- A contraceptive pill prevents ovulation by
(a) Blocking fallopian tube
(b) inhibiting release of FSH and LH
(c) Stimulating release of FSH and LH
(d) Causing immediate degeneration of released ovum
- Find the correctly matched pair.
(a) *Acetobacter aceti* - Antibiotics
(b) *Methanobacterium* - Lactic acid
(c) *Penicillium notatum* - Amino acid
(d) *Saccharomyces cerevisiae* - Ethanol
- Darwin's finches have evolved into _____ different species.
(a) 14 (b) 10 (c) 24 (d) 20
- Which of the following is considered as hotspot?
(a) Western Ghats (b) Indo - Gangetic plain
(c) Entire Himalayas (d) A and C
- An mRNA molecule is produced by
(a) replication (b) Transcription (c) Duplication (d) Translation
- Which is a macrophage?
(a) Monocyte (b) Erythrocyte
(c) Thrombocyte (d) Cymphocyte
- Vaccines that use components of a pathogenic organism rather than the whole organism are called?
(a) Subunit recombinant vaccines (b) Attenuated recombinant vaccines
(c) DNA vaccines (d) Conventional vaccines
- Right to clean water is a fundamental right, under the India constitution.
(a) Article 12 (b) Article 21 (c) Article 31 (d) Article 41
- Suspension of a certain phase of their lifecycle to overcome environmental condition is
(a) Migration (b) Camouflage (c) Regulate (d) Diapause

CH/12/Zoo/1

14. What Kind of STI is candidiasis? (a) Fungal (b) Viral (c) Bacterial (d) Protozoan
 15. Competition between species leads to (a) Mutation (b) Amensalism (c) Extinction (d) Symbiosis

PART-II

24 is compulsory.

6x2=12

II. Answer any six questions. Question No. 24 is compulsory.

16. Mention the symptoms of Down's syndrome.
 17. What is acclimatisation?
 18. There is no production of gametes in paramecium during reproduction. Yet we call this as sexual reproduction why?
 19. Write down the significance of *Indeonella sakaiensis*.
 20. What is atavism? Give example.
 21. What is cryopreservation.
 22. How do B cells and T cells differ from each other?
 23. Expand: i) AQI ii) PAN iii) NRCP iv) BOD
 24. Children are often affected with helminth diseases. How do you find out if a child is affected with ascariasis.

PART-III

6x3=18

III. Answer any six questions. Question No. 33 is compulsory.

25. What do you mean by ecosan toilets?
 26. Write a short note on Amenorrhoea.
 27. DNA is more stable than RNA. Justify the statement.
 28. Name the Acts enacted in India to prevent female foeticide.
 29. What is parthenogenesis? Give its types.
 30. What does gene therapy mean? name the hereditary disease for which the first clinical gene therapy was used?
 31. Differentiate natality and mortality.
 32. When does antibiotic resistance develop?
 33. Nowadays many youngsters are pushed into drugs and alcohol what reasons could be practical solution to this problem.

PART-IV

5x5=25

IV. Note : Answer all the questions.

34. (a) What are the applications of Karyotyping.
 (OR)
 (b) Describe the various methods of radioactive waste disposal methods.
 35. (a) Give the schematic representation of spermatogenesis and oogenesis in humans.
 (OR)
 (b) Give the salient features of genetic code.
 36. (a) How did Urey and Miller explain the synthesis of organic compounds by abiogenetic methods?
 (OR)
 (b) Describe the structure of HIV with diagram.
 37. (a) Explain the lifecycle of plasmodium in humans.
 (OR)
 (b) List the adaptations seen in terrestrial animals.
 38. (a) Explain how humulin is produced by recombinant DNA technology.
 (OR)
 (b) Jhum cultivation is a major threat to biodiversity - substantiate the statement.

CH/12/Zoo/2