

HALF-YEARLY EXAMINATION - 2023

STD - XII

ZOOLOGY

MARKS : 70

TIME : 3.00 Hrs

YouTube/ Akwa Academy

15 x 1 = 15

I. Answer all the questions.

1. Which kind of syngamy is prevalent in *Trichomympha*
 a) hologamy b) paedogamy c) merogamy d) exogamy
2. Find the wrongly matched pair
 a) Bleeding phase - fall in oestrogen and progesterone
 b) Folliculae phase - rise in oestrogen
 c) Luteal phase - rise in FSH level
 d) ovulatory phase - LH surge
3. Syphilis is caused by
 a) *Neisseria gonorrhoeae* b) *Trepanema palladium*
 c) *Chlamydia Trichomatis* d) None of the above
4. Which of the following is true about Rh factor in the offspring of a parental combination Dd x Dd (Both R^h positive)
 a) All will be R^h positive b) Half will be R^h positive
 c) About 3 / 4 will be R^h negative d) About one fourth will be R^h negative
5. Ribosomes are composed of two subunits the smaller subunit of a ribosomes has a binding site for①..... and larger subunits has two binding sites for two②.....
 a) ① mRNA and ② mDNA b) ① mRNA and ② tRNA
 c) ① tRNA and ② mRNA d) ① RNA and ② DNA
6. Sudden appearance of vestigial oegane in highly evolved organisms is called
 a) Analogous oegans b) Connecting link organisms
 c) Atavistic oegans d) None of the above
7. Match the pathogens with respective disease caused by them and select the correct match using the codes given below.
 A) Chicken pox - (i) flavi virus a) A - ii, B - iv, C - i, D - iii
 B) measles - (ii) Varicella zortec virus b) A - iv, B - ii, C - i, D - iii
 C) Dengue fever - (iii) Toga virus c) A - i, B - ii, C - iii, D - iv
 D) Chikungunya - (iv) Paramyxo virus d) A - iii, B - iv, C - ii, D - i
8. Spread of cancerous cells to distant sites is termed as
 a) Metastasis b) oncogenes c) proto- oncogenes d) Malignant neoplasm
9. Substances that can enhance the immune response to an antigen are called
 a) Haplens b) Cytokine c) Adjuvants d) Immunogen
10. Cyclosporin - A is an immunosuppressive drug produced from.....
 a) *Aspergillus nigel* b) *Manascus purpureus*
 c) *penicillium notatum* d) *Trichoderma polysporum*
11. GEAC stands for
 a) Genome Engineering Action committee b) Ground Environment Action committee
 c) Genetic Engineering Approval committee d) Genetic and Environment approved committee
12. Which one of the following statements is true regarding DNA polymerase used in PCR?
 a) It is used to ligate introduced DNA in recipient cells b) It serves as a selectable marker.
 c) It is isolated from a virus d) It remains active at a high temperature

13. Match the following and choose the correct combination from the options given below.

Column I

Column II

A. Mutualism

1. Lion and deer

a) A-4, B-5, C-2, D-3, E-1

B. Commensalism

2. Round worm and man

b) A-3, B-1, C-4, D-2, E-5

C. Parasitism

3. Birds compete with squirrels for nuts

c) A-2, B-3, C-1, D-5, E-4

D. Competition

4. Sea anemone on hermit crab

d) A-5, B-4, C-2, D-3, E-1

E. Predation

5. Barnacles attached to whales

14. Which one of the following are at high risk extinction due to habitat destruction.

a) mammals

b) Birds

c) Amphibians

d) Echinoderms

15. is / are an ideal disinfectant for waste water.

a) UV Rays

b) Chlorination

c) Boiling

d) ozonisation

II. Answer any Six Questions. Q.No.24 is compulsory

6 x 2 = 12

16. Why is the offspring formed by asexual reproduction referred as a clone?
 17. What is semen (or) seminal fluid?
 18. Write the name of copper releasing IUDs?
 19. Name the anticodon required to recognize the following codons : AAU, CGA, UAU and GCA
 20. List the common withdrawal symptoms of drugs and alcohol abuse.
 21. Define Zymology.
 22. What are DNA vaccines?
 23. Name the active chemical found in the medicinal plant Rauwolfia vomitoria. What type of diversity it belongs to? **YouTube/ Akwa Academy**

24. Write notes on the Eutrophication.

6 x 3 = 18

III. Answer any Six Questions. Q.No.30 is compulsory

25. What are Regeneration? Explain its types.
 26. Draw neat labelled diagram of Human ovum?
 27. Why are sex linked recessive characters more common in the male human beings?
 28. Differentiate - Template strand and coding strand.
 29. Mention the main objections to Darwinism.
 30. What are advantages of participating in an exercise programme?
 31. Draw neat labelled diagram of HIV virus?
 32. Write the characters of a Biome?
 33. Write short note on Ecosan Toilets?

IV. Answer all the questions in detail

5 x 5 = 25

34. Write a detailed note on spermatogenesis (OR) What is Infertility? Write its causes.
 35. Explain how gene for colour blindness is inherited as x-linked genes through a sample cross upto second generation. (OR)
 What are the structural differences between RNA and DNA?
 36. Darwin's finches and Australian marsupials are suitable examples of Adaptive radiations - Justify the statement (OR) List out the steps involved in production of Industrial alcohol.
 37. Write about PCR in clinical diagnosis and its applications (OR)
 List the adaptations seen in terrestrial animals.
 38. What are the eight categories of species in Red Data book (OR)
 Write an essay about Integrated waste water management.