

# FIRST PRE-BOARD EXAMINATION 2016-17

## SUBJECT : BIOLOGY

CLASS : XII SCIENCE

Time : 3 Hrs.

M.M. 70

- (i) All questions are compulsory
- (ii) The questions paper consist of five section
- (iii) A, B, C, D, E Section A contains 5 question of 1 mark each. Section B contains 5 question of 2 marks each. Section C contains 12 question of 3 marks each. Section D contains 1 questions of 4 marks where as section E contains 3 questions of 5 marks each.
- (iv) Only an internal choice has been provided in one question of 2 marks and one question of 3 marks.
- (v) Wherever necessary diagram should be neat and properly labelled.

### Section A (1x5 = 5)

1. What is amniocentesis?
2. Give examples of each of autosomal dominant and autosomal recessive Mendelian disorder found in human beings.
3. Algal blooms affect the life in water bodies. Explain how?
4. State the type of barrier of immune system with which a person is born and is always available to protect the body.
5. Kangaroo rat does not drink water but is still able to fulfil its water needs justify.

### Section B (2x5=10)

6. The farmer was conscious about the growth if his crop and their nutrient quality. What way would you suggest to him to have better growth of crops without harming its quality?
7. Pistil has ability to recognize the pollen grains of the right types how?

Or

- Mention two important characteristics in the sexual reproduction of frogs and bony fishes.
8. Diagrammatically represent the process of multiple fission in plasmodium.

9. What is the expanded form of GEAC? What are the objectives of this committee?
10. A comparative anatomy and morphological evidences shows the similarities and difference among the organisms of today and those existed years ago. Explain the two ways in which these can be determined.

### **Section C (3x12=36)**

11. One of the child of couple was born with blood group 'O' if the same father having blood group A and mother having B crossed than predict out the possible genotypes of both parents and other offspring produced.
12. List any reasons for the rise in population and any two steps taken by the govt. to check this population explosion.
13. Draw a neat labelled diagram of the longitudinal section of a maize grains featuring the structure of a well matured embryo.
14. Give reason for the following :
  - (i) Parasites tend to lose certain organs.
  - (ii) Clown fish lives among the tentacles of sea anemone.
  - (iii) Desert plants bears thick cuticle on their leaf surface.
15. (i) What are reasons of attraction of children towards the drugs these days.  
(ii) State different modes of consumption of such drugs.  
(iv) Name the organs of the body which can be affected by even little consumption of these drugs.
16. Draw an outline sketch of xerarch succession occurring in an ecosystem,
17. There is more species rich biodiversity in the tropical latitude when compared the temperate ones. Justify the statements giving two examples.
18. Diagrammatically represent the schematic sketch of replication fork of DNA indicating the important of different enzymes involved in it.
19. Mention the types of method diagnosis a person can undergo in order to detect cancer.
20. Explain artificial means of reproductive technology those provides the hope for many infertile couple to achieve pregnancy (any two).
21. Explain Darwin's theory of natural selection that explains about the appearance of new forms of life on the earth.
22. Biodiversity is important to mankind in both cultural and religious way justify the statement.

**Section D (4x1=4)**

23. Write some points highlight the benefits to encourage out these to stop them from the cutting of forest.

**Section E (5x3=15)**

24.(i) Draw a schematic labelled diagram of the development of an embryo sac of an angiosperm plant.

(ii) Describe only with the help of diagram, the stages of development of an embryo in dicot plant.

Or

(i) Draw a diagrammatically sectional view of human ovary showing different stages of oogenesis along with a corpus luteum.

(ii) Where does morula forms in human female? Also explain the process of development from zygote.

25. What do you mean by MOET or Multiple Ovulation Embryo Transfer technology? List the different involved in conducting the respective programmed mentioning the utility of programmed.

26.(i) What depletes ozone in the stratosphere? How does this affect human life?

(ii) What is El Nino effect? Explain how it accounts for biodiversity loss.