



Biology

(One mark questions only)

1. Organisms exhibiting external fertilization show certain important characteristics for enhancing chances of syngamy. Mention any two such characteristics.
2. Why histones are positively charged proteins?
3. What property of RNA makes it labile and easily degradable?
4. Give an example of point mutation.
5. Why are alleles I^A and I^B codominant alleles?
6. Which of the following statements are correct?
 - a) 'Drosophila completes its cycle in about two weeks time'
 - b) 'Drosophila has many hereditary variations which can be seen only with the help of an electron microscope'
7. Name two fungi which cause ring worm.

8. Name two degenerate codons

9. What is Taq polymerase?

10. Name the stain used in gel electrophoresis

11. What are biolistics?

12. Why is Bt toxin called a protoxin?

13. Name a transgenic plant?

14. Give an example of selectable markers?

15. Why is hnRNA required to undergo splicing?

16. The microscopic pollen grains of the past are obtained in fossils. Mention the characteristics of the pollen grains that make it happen?

17. How do colostrums provide initial protection against diseases to new born infants?

18. How are the following varieties of sugarcane different from each other?

i) *Saccharum officinarum*

ii) *Saccharum barberi*

19. Give reasons/explain:

- i) type of evolution seen in potato tuber and sweet potato
- ii) Bottled fruit juices brought from market are clearer as compared to those made at home.

20. Mention one negative and one negative application of amniocentesis

21. Where does syngamy occur in case of i) amphibians ii) pteridophytes

22. What is the function of generative cell of a pollen grain?

23. Which part of human sperm has numerous mitochondria?

24. What will be genetic constitution of the offsprings of a cross of individuals, heterozygous (Aa) for a trait?

25. If the sequence of bases in DNA is ATTCGATTG, what would be the bases in its transcript?

26. What is Heroin chemically?

27. What are proto oncogenes?

28. Expand MALT

29. Mention two important features of our immune systems.

30. Give an example of a vaccine produced by recombinant DNA technology.

31. Give two examples of primary lymphoid organs

32. Name the vector of dengue fever

33. Which antibody is produced during allergic reactions?
34. How does saliva act in body defense?
35. What are interferons?
36. Which category of adaptive immunity is provided by vaccination?
37. What are primary lymphoid organs?
38. How do B-cells direct humoral immunity system?
39. What is an allergen?
40. What is a carcinogen?