Question Bank

B.Sc. Biotechnology II year

Subject I (401-403)

Part A

Answer the following

1. Write the names of Mendelian principles
2. Define Pseudoallelen.
3. Give the functions of Telomeres.
4. Give names of tuo enzymes which induce unwinding of complementary stranda of DNA. Define reverse transcription
5. Write different types of DNA
6. Give names of upstream transcription factors. 1
7. At which place, translation takes place.
8. Define 'Frameshift Mutations
9. Who proposed the Lac Operon Model ?
10. Pickling
11. Spirullina
12. Food colourants
13. Beer mashing

14. De-sugaring by glucose oxidase
15. Caesin
16. Homogenization of milk
17. Micro-organisms used for making curd
18. Adulteration of milk
19. Fermented food idli.
20. Write outline classification of solid
21. Give 3 uses of biomass.
22. Global positioning system.
23. What is biodiversity?
24. Write 5 examples of toxic industrial waste. Define community containers.
25. Write names of 2 organisms used for bioremediation.
26. What is incineration ?
27. Categorise medical waste

Part B

1. Explain codominance with a suitable example,
2. Write a short note on Procaryotic genome.
3. Write the characteristics of Multiple
4. Explain Pleiotrophy.
5. Discuss the DNA Repair mechanism in organisms.
6. Write short notes on the following :

a. Z DNA

b. Enzymes involved in DNA Replication

7. Discuss the nature of Genetic Code. Write a short note on the types and applications of PCR

8. Compare transcription processes in Proenryotes and Eucaryotes

9. Give an account on the mechanism of genetic recombination in organisms.

10. Give definition, type and significance of mutations,

11. Write a short note on gene cloning.

12. Explain the process and role of micro-organisms in production of:

a. Cheese

b. Sauerkraut.

13. Give a brief account of use of algae and fungi as new protein foods.

14. Explain giving examples use of enzymes in food processing Briefly discuss:

a. Post harvest technology

b. Chemical methods of food preservation

15. What is the chemical composition of milk ? Discuss various factors affecting milk composition.

16. Explain role of micro-organisms in spoilage of milk.

17. Comment upon

a. Quality control of milk

b. Pasteurization of milk.

18. Briefly discuss processing, manufacture, uses and characteristics of:

a. Skim milk

b. Cream

c. Concentrated milk

d. Dried milk powder

19. Explain how waste bioresource can be converted into useful products,

20. Describe characteristics of solid wastes. Write goals and objectives of its management. Explain problems associated with its disposal.

21. Write notes on :

a. Onsite processing methods of solid waste.

b. Onsite storage and dust bins.

22. Describe the method of solid waste collection procedure in detail.

23. Write an account on processing technique and various methods of solid waste disposal.

24. Write notes on the following

a. Vermi composting

b. Recovery of resources.

c. Land fills

25. Explain the nature of industrial solid waste. Describe their treatment and disposal methods

26. Describe the safety rules and regulations of medical biowaste