CBCS SCHEME

USN | | | | | | | | | | |

18BBT12

First Semester M.Tech. Degree Examination, Dec.2019/Jan.2020
Concepts in Biotechnology

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. Discuss the salient features of fluid mosaic model of plasma membrane. **(10 Marks)**
b. Interpret Watson – Crick model of DNA. **(10 Marks)**

OR

2 a. Discuss in detail, the configuration of protein. **(12 Marks)**
b. Write a short note on structure and significance of m – RNA. **(08 Marks)**

Module-2

3 a. Discuss the structure and function of Endo – plasmic reticulum. **(10 Marks)**
b. Describe various stages and significance of Meiosis. **(10 Marks)**

OR

4 a. Describe the law of segregation and independent assortment with examples. Write the significance of these laws. **(14 Marks)**
b. Explain Multiple Alleles and its significance. **(06 Marks)**

Module-3

5 Write a note on different sterilization techniques and their application :
a. Heat b. Steam c. Radiation d. Filter sterilization. **(20 Marks)**

OR

6 a. Discuss the structure and function of various type of immunoglobulins. **(10 Marks)**
b. Write a short note on : i) MHC ii) APC cells. **(10 Marks)**

Module-4

7 a. Discuss in detail, the role of microbes in Agriculture Bio -technology. **(10 Marks)**
b. Write a note on Genetically modified (GM) crops and their applications. **(10 Marks)**

OR

8 Write a short note on the following :
a. Edible vaccines b. Biopesticides c. Biodegradable plastics d. Bio – fertilizers. **(20 Marks)**

Module-5

9 a. With a schematic representation, explain Biological treatment and waste water. **(12 Marks)**
b. Differentiate between submerged and solid state fermentation process. **(08 Marks)**

OR

10 a. With a neat diagram, explain the various parts of fermentor. **(10 Marks)**
b. Write a note on :
i) Bio – sorption of toxic metals
ii) Biofuel production from agricultural waste. **(10 Marks)**

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