MB-117

March-2022

B.Sc., Sem.-I

101 : Biotechnology

(The Living Being)

Time : 2 Hours]   **[Max. Marks : 50**

Instructions :   (1)   Draw figures wherever necessary.

                 (2)   Write question number against each answer.

                 (3)   Answer any **three** out of initial **eight** main questions. Question **9** is compulsory.

Section – I

1.   (A)   Explain spontaneous and chemical evolution of origin of life.   7

      (B)   Write about cell differentiation with examples.   7

2.   (A)   Give a brief account of mitochondria and chloroplast in evolution of eukaryotes.   7

      (B)   Discuss Whittaker's five kingdom classification.   7

3.   (A)   Explain morphogenesis and differentiation plants.   7

      (B)   Write about features of bryophytes.   7

4.   (A)   Discuss complex tissues of plants.   7

      (B)   Write about features of angiosperms with examples.   7

5.   (A)   Explain body organization of animals.   7

      (B)   Write about primitive and advanced marine organisms.   7

6.   (A)   Explain in brief about evolution of animals.   7

      (B)   Outline the classification of kingdom animalia.   7

7. (A) Describe economic importance of algae. 7

(B) Explain general characteristics of protozoa. 7

8. (A) Write about structure of virus. 7

(B) Explain characters of prions. 7

Section – II

9. Answer any **eight** of the following : 8

(1) Who proposed cell theory ?

(2) What are biomolecules ?

(3) Write two differences between prokaryotic and eukaryotic cell..

(4) What is law of natural selection ?

(5) What is thermophile? Give example.

(6) What is phytohormone ? Give example.

(7) Write structure of parenchyma cells.

(8) What is pollination ?

(9) What is the function of adventitious roots ?

(10) List two examples of economically important fungi ?

(11) How organs and tissues are coordinated in animals ?

(12) What are different "taxa" in animal taxonomy ?

(13) Give an example of coelomates and acoelomates.

(14) What is reflex action ?

(15) What is BMR ?

(16) What is virusoid ?

(17) What is lysogenic cycle ?

(18) Write about red algae.

(19) What is TMV and CMV ?

(20) What is conjugation ?

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