

KNT/KW/16/5104

Bachelor of Science (B.Sc.) Semester-II (C.B.S.) Examination

BIOTECHNOLOGY

(Microbiology & Cell Biology)

Compulsory Paper-1

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory and carry equal marks.

(2) Draw diagrams wherever required.

1. Describe growth curve of bacteria. 10

OR

Describe chemostat and turbidostat methods to obtain continuous culture. 10

2. Describe various mechanisms of cell injury. 10

OR

Write short notes on :

(i) Use of U.V. light for control of microorganisms 5

(ii) Laminar air flow system. 5

3. (a) Describe structure and function of Golgi complex. 5

(b) Explain the structure of nucleus of an eucaryotic cell. 5

OR

(c) Describe structure and function of endoplasmic reticulum. 5

(d) Write a note on lysosomes. 5

4. Describe mitosis process with suitable diagrams. 10

OR

Describe structure of the nerve cell and explain synaptic transmission. 10

5. Answer any **ten** questions :

(i) What is synchronous culture ? 1

(ii) What is micromanipulator and where it is used ? 1

(iii) Define generation time. 1

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| (iv) What are antiseptics ? | 1 |
| (v) What is meant by biological control ? | 1 |
| (vi) Name two agents used for gaseous sterilization. | 1 |
| (vii) What are glyoxisomes ? | 1 |
| (viii) What are peroxisomes ? | 1 |
| (ix) What is plasmodesmata ? | 1 |
| (x) Give any two significance of meiosis. | 1 |
| (xi) What is sarcolemma ? | 1 |
| (xii) Give two examples of neurotransmitters. | 1 |