

[This question paper contains 3 printed pages.]

3866

Your Roll No.

B.Sc. Prog./II

IS

**Bio-202 – BIOLOGY AND PLANTS : FORM,
STRUCTURE AND FUNCTION**

Time : 3 Hours

Maximum Marks : 75

*(Write your Roll No. on the top immediately
on receipt of this question paper.)*

*Attempt any **Five** questions.*

All questions carry equal marks.

1. (a) Explain the anatomy of Dicot stem or monocot stem. (5)
- (b) Differentiate between artificial system and natural system of classification. (5)
- (c) What are the criteria to establish the essentiality of mineral nutrients? (5)
2. (a) Describe the morphology and Economic importance of any two of the following :
 - (i) Rice
 - (ii) Cotton

P.T.O.

(iii) *Cinchona*

(iv) Tea

(10)

(b) Draw well-labelled diagrams of any **two** of the following :

(i) A bacterial cell

(ii) T.S. monocot root

(iii) L.S. ovule of *Pinus*

(5)

3. (a) Explain the mechanism of transport of water in plants. (10)

(b) Write a note on glycolysis. (5)

4. (a) What are the differences between C_3 and C_4 pathways of carbon dioxide fixation ?

OR

Write a note on short day and long day plants.

(10)

(b) Differentiate between gymnosperms and pteridophytes. (5)

5. Write a short notes on any **three** of the following :

(a) Asexual reproduction in fungi

- (b) TMV
 - (c) Structure and function of xylem
 - (d) Taxonomic hierarchy (15)
6. (a) Differentiate between transpiration & guttation. (5)
- (b) Give an account of Bentham and Hooker's system of classification. (10)
7. Briefly explain any **three** of the following :
- (a) Economic importance of Bacteria
 - (b) Characteristic features of Bryophyter
 - (c) General account of Lichens
 - (d) Range of thallus variation in algae
 - (e) Economic importance of fungi (15)