

B.N.BANDODKAR COLLEGE OF SCIENCE, THANE

T.Y.B.Sc. Preliminary Examination Feb- 2012

BOTANY - III

Duration: 3 Hours

Total Marks: 100

N. B. –

1. All questions carry equal marks.
2. All questions are compulsory
3. Draw neat and labeled diagrams wherever necessary.

Q. 1. Answer any **four** of the following: -

- a) Describe anatomy of sieve tube.
- b) Explain, Circadian Rhythms.
- c) Write a note on suppression mutation.
- d) Explain principle and factors responsible in bioremediation.
- e) Write a note on Acid rain.
- f) Explain, Fodder yielding plants.

Q. 2. Answer any **two** of the following: -

- a) Give an account of mechanism involved in Assimilation of Ammonia.
- b) Discuss in detail the factors affecting the growth.
- c) Explain in detail the mechanism involved in transport of inorganic solutes.

Q. 3. Answer any **two** of the following: -

- a) What is Mutations? Discuss in detail induced mutation.
- b) Discuss the functioning of lac operon in presence of glucose.

P.T.O.

- c) Estimate the coefficient of correlation between the following parameters given in the data. Interpret the result obtained.

| | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|
| Length of leaf in cm | 9 | 8 | 8 | 7 | 5 | 6 | 7 | 7 | 9 |
| Breadth in cm | 6 | 5 | 5 | 4 | 3 | 3 | 4 | 4 | 5 |

Q. 4. Answer any **two** of the following: -

- What is biomagnification? Discuss its significance with case studies in aquatic ecosystem.
- Write an essay on Air pollution in metro cities.
- What is toxicology? Explain, Lead as a toxicant.

Q. 5. Answer any **two** of the following: -

- What is Phytogeography? Discuss the phytogeographical regions of India
- Give an account of kinds of paper and paper products.
- Write an essay on conservation of biodiversity.
