06/05/2015 Additional Exam

Botany-I

VCD -

- BOTANY-II S.Y.B.Sc. SEM IV 75 MARKS 2 1/2 HRS 80

NOTE: 1. All questions are compulsory.

- 2. Figures to right indicate marks.
- 3. Draw labeled diagrams wherever necessary.

Q.1 Answer the following (any two)

(20M)

- a. Explain structural defense with respect to structures formed after infection in plants.
- b. With the help of neat labeled diagram explain Inflexibility & Incompressibility.
- c. Give an account of various types of Vascular Bundles.
- d. Give a detailed account of Xylem.

Q.2 Answer the following (any two)

(20M)

- a. Explain in detail Xerarch.
- b. Explain plants as indicator of pollution.
- c. Write a note on Environmental legislation.
- d. Enlist different properties of phytochrome and explain role of phytochrome...

Q.3 Answer the following (any two)

(20M)

- a. Describe Poly A addition & Splicing in Eukaryotes.
- b. Describe the nature of genetic code.
- c. Explain: Termination & Elongation of transcription in prokaryotes.
- d. A dice is tossed 120 times with the following results:

| Number turned up | 1 | 2 | 3 | 4 | 5 | 6 | Total |
|------------------|----|----|----|----|----|----|-------|
| Frequency | 30 | 25 | 18 | 10 | 22 | 15 | 120 |

Test the hypothesis that the dice is unbiased.

Given $\rightarrow \alpha$ at 0.05 and df 5, chi-square (χ^2) is 11.07

Q.4 Write short notes on (any three)

(15M)

- a. Wobble Hypothesis
- b. Elongation of peptide bond in prokaryote
- c. Importance of Photoperiodism & Vernalisation
- d. National Park
- e. Armatures
- f. Plectostele & Mixed Stele