

Roll No. ....

(12/19-II)

**5204**

**B. Sc. EXAMINATION**

(Third Semester)

**BOTANY**

First Paper

**Biology and Diversity of Seed Plants-I**

*Time : Three Hours*

*Maximum Marks : 40*

**Note :** Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. 1 is compulsory (Short Answer Type). All questions carry equal marks.

1. Short Answer Type Questions :

- (a) Define Endoscopic Embryogeny.
- (b) Which era is known as 'Ice Age' ?
- (c) Name the order of Pinus.
- (d) Which plant has photosynthetic stem studied by you ?

- (e) Write botanical name of Chilgoza Pine.
- (f) What is the name of 'Sago Palm' ?
- (g) What is Zoodiogamy ?
- (h) Name any *two* Fossil Angiosperms.  $1 \times 8$

### Unit I

- 2. What is Fossilization ? Describe the various processes of fossilization and factors affecting them. 8
- 3. Write short notes on the following :
  - (i) Lygenopteris ovule
  - (ii) Female flower of Williamsonia
  - (iii) Bennettiatalean Flower. 2+3+3
- 4. With the help of labelled diagram explain the life-history of Cycas. 8
- 5. Write explanatory notes on the following :
  - (i) Coralloid root of Cycas
  - (ii) Monoxyle wood

(iii) Diploxylic condition

(iv) Bulbil of Cycas.

2×4

## Unit II

6. Give an illustrated account of Post-fertilization developments leading to the formation of Seed in Pinus. 8

7. Write short notes on the following :

(a) Polyembryony

(b) Economic importance of Ephedra

(c) Seed of Ephedra.

3+2+3

8. Briefly explain the origin and evolution of Angiosperms, giving some examples of primitive Angiosperms. 8

9. Draw well labelled diagrams of the following :

(i) T.S. of Rachis

(ii) T.S. of Needle.

4+4