

KNT/KW/16/5084

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

BOTANY (Pteridophyta and Gymnosperms)

Compulsory Paper-1

Time : Three Hours]

[Maximum Marks : 50

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

(2) Illustrate your answers with suitable example and diagrams wherever necessary.

1. Write notes on :

(a) T.S. stem of *Selaginella*.

(b) General characters of sphenopsida and pterapsida.

5×2

OR

Write short notes on :

(c) L.S. Sporangium of *Rhynia*.

(d) Economic importance of pteridophyta

(e) L.S. Strobilus of *Selaginella* (Diagram only)

(f) General characters of Psilopsida.

2.5×4

2. Write notes on :

(a) Heterospory and seed habit

(b) L.S. Strobilus of *Equisetum*.

5×2

OR

Write short notes on :

(c) T.S. Rhizome of *Marsilea* (Diagram only)

(d) Sporocarp of *Marsilea*

(e) T.S. stem of *Equisetum* through internode (Diagram only)

(f) Gametophyte of *Equisetum*.

2.5×4

3. Write notes on :

(a) General characters of Gymnosperms

(b) T.S. leaflet of *Cycas*.

5×2

OR

Write short notes on :

- (c) *Cycadeoidea* flower (Diagram only)
- (d) Economic importance of Gymnosperms
- (e) Microsporophyll of *Cycas*
- (f) L.S. ovule of *cycas* (Diagram only).

2.5×4

4. Write notes on :

- (a) T.S. Needle of *Pinus*
- (b) T.S. Stem of *Ephedra*.

5×2

OR

Write short notes on :

- (c) Male cone of *Ephedra*
- (d) L.S. Male cone of *Pinus* (Diagram only)
- (e) L.S. Ovule of *Pinus* (Diagram only)
- (f) Female flower of *Ephedra*.

2.5×4

5. Write in **two** or **three** lines on each (any **ten**). Diagrams are not necessary.

- (a) Lycopside
- (b) Ligule
- (c) Rhizophore
- (d) Scale leaves
- (e) Sorus
- (f) Vallecular canal
- (g) Mucilage canal
- (h) Bulbils
- (i) Circinate veneration
- (j) Winged pollen grains
- (k) Ovuliferous scale
- (l) Ephedrine.

1×10