

Question Paper Code : 5692

M.Sc. (Semester-II) Examination, 2018

(Regular & Back Paper / Improvement)

BOTANY

[Fifth Paper]

(Pteridophytes)

Time : Three Hours]

[Maximum Marks : 70

Note : Answer **five** questions in all. Question **No.1** is **compulsory**. Besides this, **one** question is to be attempted from each unit.

1. Write in brief about **any ten** of the following :[3x10=30]

- (a) Axis of Quillwort
- (b) Characteristic feature of Azolla leaves
- (c) Synangium
- (d) False indusium
- (e) Telome
- (f) Spike of Adder's tongue

5692/100

(1)

[P.T.O.]

- (g) Petrification fossil
- (h) Sporangiphores of Equisetum
- (i) Calamites
- (j) Apospory
- (k) Circinate venation
- (l) Indusium

UNIT-I

2. Give a detailed account of evolution of pteridophytes. Comment upon their algal and bryophytic origin. [10]
3. Write short notes on the following : [5x2=10]
 - (a) Taxonomical significance of fern flora based on the cytological evidences.
 - (b) Characteristic features of new divisions of Pteridophyta.

UNIT-II

4. Trace the evolution of stelar system in pteridophytes from the most primitive type of stele. [10]
5. Explain the phrase : [5x2=10]
 - (a) "Heterospory – pre-requisite for seed habit."

5692/100

(2)

- (b) Economically important pteridophytes.

UNIT-III

6. Comment upon the discovery of **Rhynia** . Give a comparative account of its both species. [10]
7. Write short notes on any two of the following : [5x2=10]
 - (a) Sigillaria
 - (b) Cheirostrobos
 - (c) Zygopteris

UNIT-IV

8. Discuss the diversity of sporocarps found in different genera. [10]
9. Enumerate the distinguishing features and systematic position of the following : [5x2=10]
 - (a) Cyathea
 - (b) Lygodium

----- X -----

5692/100

(3)