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(6th Semester)

BOTANY

NINTH PAPER

**(Pteridophyta, Gymnosperm, Paleobotany
and Palynology)**

Full Marks : 55

Time : 2½ hours

(PART : B—DESCRIPTIVE)

(Marks : 35)

*The figures in the margin indicate full marks
for the questions*

1. Write the system of classification of Pteridophyta. 7

Or

Write accounts on any *two* of the following : $3\frac{1}{2} \times 2 = 7$

- (a) Heterospory
(b) Development of Sporangia
(c) Telome theory

2. Write notes on the morphology and reproduction of *Marsilea*. 7

Or

Discuss the characteristics and distribution of calamites.

3. Describe the structure of male and female strobili of *Ephedra*. 7

Or

Describe the structure of male and female strobili of *Taxus*.

4. Write notes on phylogenetic trends in gymnosperms. 7

Or

Write notes on any *two* of the following : $3\frac{1}{2} \times 2 = 7$

- (a) General account of archegonia
(b) Economic importance of gymnosperms
(c) Distribution of living gymnosperms in India

(3)

5. What is palynology? Describe the pollen morphology with suitable diagram. $1+6=7$

Or

Write short notes on any *two* of the following : $3\frac{1}{2}\times 2=7$

- (a) Geological time scale
- (b) Gondwana flora
- (c) Pollen allergy

Subject Code : BOT/VI/09

Booklet No. **A**

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Date Stamp

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To be filled in by the Candidate

DEGREE 6th Semester
(Arts / Science / Commerce /
.....) Exam., **2017**
Subject
Paper

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To be filled in by the Candidate

DEGREE 6th Semester
(Arts / Science / Commerce /
.....) Exam., **2017**
Roll No.
Regn. No.
Subject
Paper
Descriptive Type
Booklet No. B

INSTRUCTIONS TO CANDIDATES

- 1. The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.
- 2. This paper should be ANSWERED FIRST and submitted within 45 minutes of the commencement of the Examination.
- 3. While answering the questions of this booklet, any cutting, erasing, overwriting or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.

Signature of
Scrutiniser(s)

Signature of
Examiner(s)

Signature of
Invigilator(s)

BOT/VI/09

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(6th Semester)

BOTANY

NINTH PAPER

**(Pteridophyta, Gymnosperm, Paleobotany
and Palynology)**

(PART : A—OBJECTIVE)

(Marks : 20)

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 5)

- 1.** Put a Tick (✓) mark against the correct answer in the brackets provided : 1×5=5

(a) The sorus may be protected by a revolute margin or by a special outgrowth called

- (i) indusium ()
(ii) leaf gaps ()
(iii) megaphyllous ()
(iv) None of the above ()

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(2)

(b) Marsilea belongs to the class

(i) Eusporangiopsida ()

(ii) Leptosporangiopsida ()

(iii) Lycophytopsida ()

(iv) Sphenophytopsida ()

(c) In *Ephedra*, the stalk bears

(i) 2–8 microsporangia ()

(ii) 2–7 microsporangia ()

(iii) 2–6 microsporangia ()

(iv) 2–5 microsporangia ()

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(3)

(d) Which one of the following is regarded as a living fossil?

(i) *Taxus baccata* ()

(ii) *Ginkgo biloba* ()

(iii) *Gnetum ula* ()

(iv) None of the above ()

(e) Pollen grains have a hard coat made of

(i) sporopollenin ()

(ii) sporogeneous tissue ()

(iii) sporocytes ()

(iv) All of the above ()

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(4)

SECTION—B

(Marks : 15)

2. Write notes on the following :

3×5=15

(a) Sori of Pteridophytes

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(5)

(b) Sporocarp of Marsilea

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(6)

(c) Character of Lepidodendron

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(7)

(d) Classification of gymnosperms

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(8)

(e) Features of Cordaites

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