

Roll No.....

Total No. of Sections : 03

Total No. of Printed Pages : 03

Code No. : 04/104(A)

Fourth Semester Examination, May-2018

M.Sc. BOTANY

Paper - I

**PLANT REPRODUCTION AND UTILIZATION OF  
RESOURCES**

**Time : 3 Hrs.**

**Max.Marks : 80**

**Note :** Section 'A' consists of 10 very short answer type questions, all of which are compulsory and should be attempted first. Section 'B' consists of four short answer type questions with internal options. Section 'C' consists of four long answer type questions with internal choice.

**Section - 'A'**

**Answer the following very short-answer-type questions in one or two sentences : (2 × 10=20)**

- Q.1 Write about endosperm.  
Q.2 Describe pollination in Yucca.  
Q.3 Name any two types of ovule found in Angiospermic plants.  
Q.4 Write any two function of tapetum.  
Q.5 What is polyembryony?  
Q.6 Write Botanical name and family of any two aromatic plants.  
Q.7 Write about any two types of tetrasporic embryo sac.  
Q.8 What are ethnobotanical uses of plants?  
Q.9 Write botanical names of the following plants.  
i) Amla ii) Safed musli

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iii) Haldi (Turmeric) iv) Castor

Q.10 Define Polyspermy.

**Section - 'B'**

Answer the following short-answer-type questions with word limit 200-250 : (5 × 4=20)

Q.1 What is layering? Describe the types of layering.

**OR**

Describe double fertilization and triple fusion.

Q.2 Write a brief note on pollen-allergy.

**OR**

Describe megasporogenesis.

Q.3 Describe xenia, metaxenia and mosaic and ruminant endosperm.

**OR**

Explain fruit growth and fruit maturation.

Q.4 Discuss innovation for meeting world food demand.

**OR**

Write the Botanical name and family of the plants which are used to make *triphala churna*-an Aayurvedic medicine. Mention their medicinal importance.

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**Section - 'C'**

Answer the following long-answer-type questions with word limit 400-450 : (10 × 4=40)

Q.1 Describe Pollen-Pistil interaction and self-incompatibility.

**OR**

Write about agents of pollination, and growth and guidance of pollen tube.

Q.2 Describe structure of mature ovule and megasporangium.

**OR**

Describe Structure of Anther and development of male gametophyte.

Q.3 What is Apomixes? Explain types and significance of apomixes.

**OR**

Describe types of endosperm.

Q.4 Write Botanical name and family of the following plants, mention its uses :

(i) *Tamarind* (ii) *Amaltash* (iii) *Gulmohor* (iv) *Pipal*  
(v) *Arjun*

**OR**

Give a comparative account on the following plants of Chhattisgarh.

(i) *Tulsi* (ii) *Aloevera* (iii) *Moringa*  
(iv) *Lantans* (v) *Sarpgandha*

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