

Name: _____						
Subject: Biology		Class: 11 <sup>th</sup>	Time: 80 minutes	Total Marks:	40	
Chapter No.9 2 <sup>nd</sup> half		MJDexpert.com			Obtained marks	

**Note:** Please attempt any 11 short questions from Question 2. Also, attempt both parts (a and b) of Question 3. Cutting and removal of any content is strictly prohibited.

## Objective-Section

### Q. 1 Encircle the correct answer. (10x1=10)

1. The male cones of Pinus are produced in:  
(A) Clusters on an axis (B) Single units on the plant (C) Large and conspicuous groups (D) Underground structures
2. What structure in Pinus contains the microsporangia?  
(A) Female cone (B) Male cone (C) Ovule (D) Pollen grain
3. In the life cycle of Pinus, the functional megaspore undergoes mitosis to produce:  
(A) Male gametophyte (B) Female gametophyte (C) Microspore (D) Seed
4. The transfer of male gametes in gymnosperms is accomplished through:  
(A) Water (B) Insects (C) Wind (D) Animals
5. The ovule of an angiosperm contains:  
(A) Male gametes (B) Female gametophyte (C) Microspores (D) Pollen grains
6. What does double fertilization in angiosperms produce?  
(A) Two embryos (B) One embryo and endosperm (C) Two seeds (D) One seed and one pollen grain
7. Which of the following is not a characteristic of the Rosaceae family?  
(A) Showy flowers (B) Compound leaves (C) Zygomorphic flowers (D) Usually bisexual flowers
8. In the Solanaceae family, the fruit is typically:  
(A) Legume (B) Drupe (C) Berry (D) Capsule
9. Which plant is a member of the Fabaceae family?  
(A) Tomato (B) Rose (C) Pea (D) Pine
10. The main economic use of plants from the Mimosaceae family includes:  
(A) Timber and fuel (B) Ornamental purposes only (C) Edible fruits (D) Medicinal purposes only

## Subjective-Section

### Q.2 Write short answers of any ten of the following questions: (11x2=22)

- I. Define the term "pollen grain" in the context of Pinus.
- II. What is the role of the microspore mother cell in the reproduction of Pinus?
- III. Describe the function of the female cone in Pinus.
- IV. Explain the concept of "double fertilization" in angiosperms.
- V. What is the main difference between Monocotyledonae and Dicotyledonae?
- VI. How does the wind facilitate pollination in Pinus?
- VII. Name two families of angiosperms and provide one characteristic for each.
- VIII. What is the economic importance of the Rosaceae family?
- IX. Describe the general floral characteristics of the Solanaceae family.
- X. What distinguishes the Fabaceae family from other plant families?
- XI. How are seeds formed in angiosperms after fertilization?
- XII. Explain the term "endosperm" and its role in angiosperms.

### Q.No.3 Long Question:

(4+4=8)

- a. Outline the key stages from pollination to seed formation.
- b. Discuss how the structure of flowers contributes to the reproductive process.