

QP CODE: D3BBT2401

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Reg. No : .....

Name : .....

**THIRD SEMESTER FYUGP EXAMINATION, NOVEMBER 2025**

**Discipline Specific Core (DSC) Courses - Major**

**BOT3CJ201 : Plant Embryology, Palynology & Evolution**

**(Credits: 4)**

**Time: 2 Hours**

**Maximum Marks: 70**

**Section A**

**Answer the following questions. Each carries 3 marks (Ceiling: 24 marks)**

1.	What is the process of microspore formation?	BL2	CO1, CO2, CO3
2.	What are Ubisch bodies? State their role in pollen wall development.	BL2	CO1
3.	What is Lamarckian theory of evolution.	BL1	CO4, CO5
4.	Give an account on post-zygotic isolation mechanisms.	BL2	CO4, CO5
5.	What is anatropous ovule?	BL1	CO1, CO2, CO3
6.	Explain the term Pseudocrassinucellate.	BL2	CO1, CO2, CO3
7.	What is genetic variation and what causes genetic variation?	BL2	CO4, CO5
8.	Name two differences between dicot and monocot embryo.	BL2	CO1, CO2, CO3
9.	What is NPC?	BL1	CO1
10.	Mention one example of polyembryony.	BL2	CO1, CO2, CO3

**Section B**

**Answer the following questions. Each carries 6 marks (Ceiling: 36 Marks)**

11.	Explain the significance of double fertilization.	BL2	CO1, CO2, CO3
12.	Write an account of hermogametic mechanism in pollen grains.	BL1	CO1, CO3
13.	Write note on evolution of prokaryotic and eukaryotic cells	BL2	CO4, CO5
14.	Why physiological and biochemical evidences are considered as most convincing evidence in support of organic evolution	BL2	CO4, CO5
15.	What is entomophily? What are the characteristics of entomophilous flowers?	BL2	CO1, CO2, CO3

**(PTO)**

16.	Describe helobial endosperm and its evolutionary implications.	BL2	CO1, CO2, CO3
17.	Describe the methods of pollen storage and their applications.	BL2	CO1, CO2, CO3
18.	Write an account of Miller's experiment and its contribution to the study of origin of life.	BL2	CO4, CO5

### Section C

**Answer any one question. Each carries 10 marks (1 x 10 = 10 Marks)**

19.	Discuss in detail about appendages and adaptations that assist seed dispersal in angiosperms.	BL2	CO1, CO2, CO3
20.	Write an essay on the branches of palynology. Explain their scope and significance.	BL2	CO1, CO2, CO3

**CO : Course Outcome**

**BL : Bloom's Taxonomy Levels** (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)