

MOUNT CARMEL PU COLLEGE
DEPARTMENT OF BIOLOGY
2ND YEAR PUC MID-TERM PRACTICAL EXAMINATION
2026

TIME: 2 HOURS

MAXIMUM MARKS: 30

1. Prepare a temporary slide to show pollen germination from the given material “A1” and calculate the percentage of pollen germination.

OR

- Prepare a temporary slide to show pollen tube growth on the stigma from the given material “A2” and draw a labeled diagram of your observation.

OR

- Prepare a temporary slide of given material “A3” by taking a transverse section of ovary and report the number of locules and type of placentation.

OR

- Prepare a temporary slide to show nucleic acid staining from the given material “A4” and report the shape of the cell and number of nuclei observed. **5 marks**

2. Prepare a temporary slide of the given material “B” and identify any one stage of mitosis and comment on the stage observed. **5 marks**

3. Identify and comment on the given pedigree chart “C”. **3 marks**

4. Identify “D” and comment. **3 marks**

5. Identify “E” and comment. **2 marks**

6. Identify “F” and comment. **2 marks**

7. Attendance **5 marks**

8. Practical Records **5 marks**

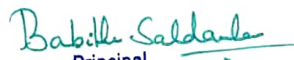

Head of the Department
Department of Biology
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Vasanthnagar, Bangalore-52


Principal
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58, Palace Road,
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SCHEME OF EVALUATION

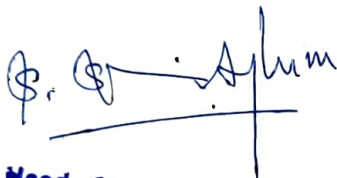
Q.NO	SUBJECT	SCHEME OF EVALUATION	
A	Pollen germination experiment	Preparation of the slide 3 marks	*Any one of the experiments to be performed by the student on the basis of selection by lottery system. Of the four experiments, one will be selected by each student. Only raw material will be provided. Conduction of experimental procedures such as sectioning, staining, slide preparation, etc., should be done by the student.
		Calculating the % pollen germination 2 marks	
	Pollen tube growth on stigma experiment	Preparation of the slide 3 marks	
		Labeled diagram 2 marks	
	Transverse Section of ovary	Preparation of the slide 3 marks	
		Reporting the number of locules in ovary 1 mark	
		Reporting the type of placentation 1 mark	
	Nucleic acid staining experiment	Preparation of the slide 3 marks	
		Reporting the shape of the cell- 1 mark	
		Reporting the number of nuclei 1 mark	
B	Prepare a temporary mount of onion root tip to study mitosis.	Preparation of the slide 3 marks	Processing of root tip such as treatment, staining, slide preparation etc., should be done by the student only.
		Identifying any one stage 1 mark	
		Commenting on the stage observed 1 mark	
C	Pedigree Chart	Identification of type pedigree* 1 mark	Pedigree chart analysis One of the Pedigree charts prepared during practical classes is to be given. *Autosome Linked Dominant traits
		Comments 2 marks	


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INSTRUCTIONS:

1. ALL STUDENTS MUST TAKE UP PRACTICAL EXAM ON THE DATE AND TIME SPECIFIED ONLY.
2. KINDLY REPORT TO THE LAB 5 MIN PRIOR.
3. CARRY YOUR COMPLETED RECORD, DISSECTION KIT-
FORCEPS, NEEDLE, BLADE, PAINT BRUSH, STATIONERY
AND LAB COAT.
4. TRANSPARENT PENCIL POUCHES ALLOWED
5. MOBILE PHONES, SMART WATCHES AND SCIENTIFIC CALCULATORS ARE NOT ALLOWED.
6. PLEASE ENSURE YOUR HAIR IS TIED.
7. ANY FORM OF MALPRACTICE WILL BE SERIOUSLY DEALT.



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