

Mangaluru University
B. Sc. Semester V Practical Examination

BSCBOP 333:
Ecology, Environmental Biology and Plant Physiology

Question Paper Pattern and Scheme of evaluation

Time: 4 hrs. Batch..... Date..... Time.....am/pm Max. Marks: 80

1. Prepare a stained temporary mount of the T. S of material **A**. Draw a labelled diagram and list the anatomical features of ecological significance. Leave the slide for inspection. 08
2. List out the materials required to set the given major experiment **B**. Write the principle and procedure of the experiment, draw a labelled sketch of the set up. Set up the experiment, demonstrate the results and write the inference. Leave the set up for inspection. 12
3. Estimate the carbohydrate / protein present in the given sample **C** 10
4. a. Identify the ecological instrument **D**, describe its working mechanism and uses. 05
b. Write the aim, procedure and the expected results of the given minor experiment **E** 05
5. Project work report and viva-voce 20
6. Practical Records 20

1	A		Prep 02 Sk 02 Features 04 <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> 08	Reg. No. of Candidates Assigned
2	B		Requirements 01 Sketch 02 Procedure 02 Principle 01 Setting 04 Results and 02 Inference <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> 12	<u>Reg. No. of</u> <u>absentees:</u> <u>Total examined:</u> <u>Examiners:</u>
3	C		Procedure 4 Tabular column, Calculations and Result (+ or – 10% error allowed) 6 <div style="text-align: right;">Total 10</div>	1.External
4	D		Identification 01 Working Principle & uses 03 Sketch 01 <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> 05	2.Internal

Mangaluru University
B.Sc. Semester VI Practical Examination

**BSCBOP 383: Cytogenetics, Molecular Biology, Plant Propagation
and Biotechnology**

Question Paper Pattern and Scheme of evaluation

Time: 4 hrs. Batch..... Date..... Time.....am/pm Max. Marks: 80

1. Prepare a slide of material **A** by squash method for the study of mitosis/meiosis. Identify and show any one stage. Draw a labelled sketch of the identified stage. 10
2. Estimate the percentage of pollen viability in the given flower **B**. Show the prepared slide to examiner. 10
3. Solve the given genetic problems **C** and **D**. 5+5= 10
4. Identify the cytological stages/ergastic materials in the slides **E** and **F** with labelled diagrams 5+5=10
5. Identify and comment on **G, H, I** and **J**. 5+5+5+5=20
6. Practical Records 10+10=20

1	A		Squash prepn 05 Stage Idntfn 02 Sketch 03 <hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 10	Reg. No. of Candidates Assigned
2	B		Pollen slide Prepn 05 Calculation & Result 05 Total 10	
3	C		Answer with proper explanation and Checker board 5	<u>Reg. No. of absentees:</u>
	D			
4	E		Idntification 01 Sketch 02 Features 02 <hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 05	<u>Total examined:</u>
	F			
5	G H I J		Identification 01 Sketch 02 comments 02 <hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 05	<u>Examiners:</u> 1.External
6		Class Record	10+ 10	2.Internal

Instruction to Examiners:

A: Onion root tip or flower buds

B: Unopened flowers (*Datura/Catharanthus/Alamanda*) with intact anthers must be provided
Onion/ Rheo leaf peel

C and D: One problem each from Mendelism and interaction of genes (same or similar to those worked out in the practical class)

E and F: One slide from mitosis/ meiosis and any slide of an ergastic substance.

G, H, I and J: One each material/photograph related to plant breeding, tissue culture, transgenic plants and electrophoresis to be displayed.