

M.Sc Zoology sem III and sem IV Practical question paper pattern

Paper pattern for practical 1 and practical 2 of semester III and IV .

Practical III and IV (specialisation) remains unchanged. The change to be made in view of introducing project work at semester III and semester IV level

Practical paper pattern

Semester III

Zoology- Biotechnology

Course Code PSZOBT3P1

Q1) Determination of viable cell count in the given culture of bacteria by dilution & spreading technique. (25) Marks

OR

Q1) Using mini-prep method isolate plasmid DNA from the given strain of bacteria & show the purity of the isolate by performing agarose gel electrophoresis. (25) Marks

OR

Q1) Preparation of LB agar plate, slant, butt & demonstration of streaking technique using bacterial culture to obtain isolated colonies. (25) Marks

Q2) To estimate the Demonstration of aseptic technique: Work place for aseptic handling, packing glassware (flasks, test tubes, pipettes, petridish) for sterilization, aseptic transfer of liquids pipetting from flask to test tube. (15) Marks

OR

Q2) Estimate number of bacteria in given culture of nephelometry. (15) Marks

Q3) Viva (05) Marks

Q4) Journal (05) Marks

Practical Semester III

Course Code PSZOBT3P2

Project Work (50) Marks

- 1) Introduction
- 2) Concept/Hypothesis
- 3) Survey of literature
- 4) Methodology
- 5) Expected outcome

Practicals paper pattern

Semester IV

Zoology- Biotechnology

Course Code PSZOBT4P1

Q1) Demonstrate the effect of medium on growth curves of given microorganisms, using enriched media. (25) Marks

OR

Q1) Demonstrate the effect of medium on growth curves of given microorganisms, using minimal media. (25) Marks

OR

Q1) Prepare a bioreactor column to demonstrate Invertase activity in the bioreactor column. (Day 1) (25) Marks

Q2) Immobilize Yeast cells in calcium alginate, prepare beads & keep them overnight in activation medium. (15) Marks

OR

Q2) Restriction-digest the given DNA sample & demonstrate the separation of fragments by performing agarose gel electrophoresis. Interpret the results by comparing with the standard digests provided. (15) Marks

OR

Q2) Demonstrate the western blotting technique for the given sample of protein. (Day 1) (15) Marks

Q3) Viva (05)Marks

Q4) Journal (05)Marks

Practical Semester IV

Course Code PSZOBT4P2

Project Presentation (50)Marks