

TELANGANA UNIVERSITY
FACULTY OF SCIENCES

Proposed scheme for B.Sc Microbiology program under CBCS with effect from 2016-17

B.Sc -II Year (III- SEMESTER) PRACTICAL EXAMINATIONS

SUBJECT: MICROBIOLOGY

PAPER: MICROBIAL PHYSIOLOGY AND ENZYMOLOGY

QUESTION BANK

TIME: 3 HOURS

MARKS: 50

I-Major Experiment questions

(20 Marks)

1. Take the turbidity readings of culture tubes provided for different time intervals of growing bacterial cultures and plot the growth curve.(Examiner to provides suitable samples for growth curve.)
2. Take the turbidity readings of culture tubes provided for different temperatures of growing bacterial cultures and plot the growth curve.(Examiner to provides suitable samples)
3. Take the turbidity readings of culture tubes provided for different PH of growing bacterial cultures and plot the growth curve.(Examiner to provides suitable samples.)
4. Take the turbidity readings of culture tubes provided for different salt concentration of growing bacterial cultures and plot the growth curve.(Examiner to provides suitable samples)
5. Plot a standard graph of amylase activity by calorimeter and find the amount of enzyme activity in unknown sample. (Examiner to provide unknown samples and reagents.)
6. Estimate the amount of catalase activity in given sample by titration method. (Examiner to provide samples and reagents.)

II-Minor Experiment questions

(10 Marks)

7. Find out the viable count of bacteria by observing the colonies developed on dilution sample inoculated. (The Examiner to provide colonies on plates with volume plated and dilution).
8. Prepare a mineral salt medium and pour on to the Petri plate. (Examiner to provide all components)
9. Prepare a McConkey agar and pour on to the Petri plate. (Examiner to provide all components)
10. Prepare a medium for culturing heterotrophs and pour on to the Petri plate. (Examiner to provide all components.)
11. Prepare a medium for culturing phototrophs and pour on to the Petri plate. (Examiner to provide all component)

III-Spotting (any 5 spots)

(5X3= 15 Marks)

12. Calorimeter
13. Winogradsky's column
14. Sugar fermentation medium with result
15. Bristol medium
16. Pringstein's medium
17. Blood agar
18. Starch agar plates containing colonies tested with iodine
19. Nutrient agar
20. Graphical presentation of growth curve
21. Graph showing the effect of PH on bacteria growth
22. Graph showing the effect of temperature on bacteria growth
23. Graph showing the effect of salt concentration on bacteria growth

IV-Record and viva

(5 Marks)