

Council for Technical Education and Vocational Training
Office of the Controller of Examinations
Sanothimi, Bhaktapur

Regular/Back Exam – 2080 Mangsir/Poush

Program:	Certificate in Medical Lab. Tech.	Full Marks: 80
Year/Part:	2nd Year (2019)	Pass Marks: 32
Subject:	Clinical Microbiology and Immunology	Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group A (Long Questions)

[3×8=24]

Attempt any **THREE** questions.

1. Draw a well labelled diagram of bacteria. Classify bacteria on the basis of shape with examples.
2. Define hypersensitivity reactions. What are the different types of hypersensitivity reactions.
3. What is stain? Describe the principle, requirements, procedures and result interpretation of AFB stain.
4. List the name of fungal culture media. Explain the procedure of skin scrapping, sputum, nail and hair sample collection in mycology lab.

Group B (Short Questions)

[8×4=32]

Attempt any **EIGHT** questions.

5. Explain the polymerase chain reaction (PCR) in details.
6. What is biochemical test? Explain the catalase test in details.
7. Describe antibiotic sensitivity test by Kirby Bauer Disc diffusion method.
8. Define disinfection and sterilization. Write down any two chemical methods of sterilization.
9. Explain the lytic cycle of virus in details with diagram.
10. Define antibody. Describe the structure of antibody.
11. Define fungi. Classify the fungi on the basis of morphology.
12. Explain the cultivation of virus by egg inoculation method.
13. List the possible pathogens in blood. How do you perform blood cultures in laboratory.
14. How quality control in bacteriology lab is achieved? Explain.

Cont.

Group C (Very Short Questions)

[12×2=24]

Attempt any TWELVE questions.

15. Define culture media.
16. Differences between staphylococcus and streptococcus
17. Germ Tube Test
18. Define dengue.
19. Mordant
20. Morphology of *N. gonorrhoeae*
21. Preparation of 10% KOH
22. Scope of Microbiology
23. Midstream Urine
24. Differences between Prokaryotes and Eukaryotes.
25. Hanging Drop Preparations
26. Bacteriophage
27. Normal Flora of Human Body
28. Hospital Waste Management

Good Luck !