



NATIONAL OPEN UNIVERSITY OF NIGERIA
UNIVERSITY VILLAGE, PLOT 91, CADASTRAL ZONE
NNAMDI AZIKIWE EXPRESS WAY, JABI, ABUJA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PUBLIC HEALTH SCIENCE
2025_2 EXAMINATIONS

COURSE CODE: PHS303
COURSE TITLE: GENERAL MICROBIOLOGY
CREDIT UNIT: 3
TIME: 2 HOURS
TOTAL SCORE: 70 MARKS
INSTRUCTION: ANSWER ALL QUESTIONS

Question 1:

- a) Describe the role of a medical laboratory in the healthcare system. Include at least three specific functions it performs. (8 marks)
- b) What are the common causes of laboratory infections? (8 marks)

Question 2:

- a) Describe the procedure for performing a Gram stain, including the purpose of each step. (9 marks)
- b) Explain the principle of colorimetry and describe two of its significance in clinical chemistry laboratory practices. (9 marks)

Question 3:

- a) Describe two advantages and one disadvantage of using paraffin wax and celloidin as embedding mediums in histopathology? (9 marks)
- b) Explain the difference between qualitative and quantitative analyses in clinical laboratory tests. Provide an example of each type. (9 marks)

Question 4:

- a) Discuss the four levels of biohazards with examples of organisms (8 marks)
- b) Mention the names and uses of 4 equipment in the laboratory (8 marks)
- c) Mention 2 non-communicable diseases (2 marks)