



GREAT LAKES UNIVERSITY OF KISUMU
P.O. Box 2224 KISUMU 40100
FACULTY OF HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY

JAN - APRIL 2024 Academic Semester

END OF SEMESTER FINAL EXAMINATION

CODE: HNS 131B NAME: FUNDAMENTALS OF NURSING II

TIME: 3 HOURS

Instructions to candidates

1. Write your index number on every answer sheet used.
2. Do not write your name on any answer sheet.
3. Attempt Both Sections, I and II.
4. Use **only ink pen**. DON'T use a pencil.

Section I comprises of M.C.Q

4. Choose the correct answer(s) in every question and write on answer sheet.

Section II Comprises of four Essay Questions.

5. Attempt only two questions. Make sure you understand the question before answering.

SECTION I (30 MARKS)

1. The following are true of prokaryotic cells
 - a) Mitochondria present
 - b) Nucleus present
 - c) Endoplasmic reticulum absent
 - d) Lysosome present
 - e) Reproduce asexually
2. The following are beneficial application of microbiology
 - a) Useful in production of beneficial minerals
 - b) Fermentation in food industry
 - c) Sewage treatment
 - d) Prediction of human mortality
 - e) Determining the parents of a child
3. The following characteristics are associated with eukaryotic cells;
 - a) Possess cell wall that consist of peptidoglycan
 - b) Lacks true nucleus with nucleoid
 - c) Mitochondria present
 - d) Reproduce by sexually
 - e) Have circular DNA
4. The following is true of Robert Koch except;
 - a) Introduced milk preservation techniques
 - b) Identified mycobacterium tuberculosis bacteria
 - c) Introduced use of culture media

- d) Introduced beer brewing technology
- e) Invented microcopy
- 5. The following is true of a gram stain technique;
 - a) Useful in identification of mycobacterium tuberculosis
 - b) Is made of Crystal violet and acetone
 - c) Useful in classification of bacteria gram positive and gram negative
 - d) Was introduced by Robert Koch
 - e) Staining time takes 3 days
- 6. Infections of micro bacteria can be effected through the following routes;
 - a) Inhalation
 - b) Buffalo vector bite
 - c) Radiations procedures
 - d) Mosquito bite
 - e) Sexual intercourse
- 7. The common characteristic of pathogenic bacteria includes the following except;
 - a) They produce toxins
 - b) Able to invade the body system
 - c) Must be able to survive in temperatures above 100°C
 - d) Are all gram positive
 - e) Are all spore formers
- 8. The following is true of exotoxins;
 - a) Are highly toxic
 - b) Are released by bacteria after death
 - c) highly antigenic
 - d) Are weakly immunogenic
 - e) Are relatively stable and can withstand temperature above 60°C
- 9. In the exponential phase of a bacterial growth curve;
 - a) Bacterial cell adopts to the new environment
 - b) Cell division is steady and optimal
 - c) Nutrients become exhausted
 - d) Rate of bacterial cell death exceeds reproduction
 - e) Nutrients are abundant
- 10. Which of the following are gram negative bacteria;
 - a) Staphylococcus
 - b) Salmonella
 - c) Klebsiella
 - d) Streptococcus
 - e) Mycobacterium
- 11. Bacteria is classified based on which of the following criteria;
 - a) Bacterial cell structure / type / morphology
 - b) Gram staining reaction
 - c) Based on lifespan
 - d) Mode of infection
 - e) Susceptibility testing
- 12. The following are physical methods of sterilization;
 - a) Autoclaving
 - b) Dry heat
 - c) Phenol
 - d) Formalin

- e) Use of bacteria phage
- 13. Sterilization is affected by which of the following;
 - a) Time and concentration of disinfectant
 - b) Company source
 - c) Cost of disinfectants
 - d) Mode of application
 - e) Presence of organic materials
- 14. Chemical methods of sterilization include the following;
 - a) Use of Lysol
 - b) Boiling
 - c) Vibration
 - d) Phenol
 - e) Filtration
- 15. The following explains antimicrobial drugs resistance
 - a) Genetic mutation
 - b) Modification of antimicrobial agents
 - c) Nutritional uptake
 - d) Aging status of a patient
 - e) Window periods
- 16. Properties of a good disinfectant;
 - a) Should be rapid in action
 - b) Should cause harm to the tissue membrane of the user
 - c) Should paint the item disinfected
 - d) Should be non toxic to the user
 - e) Must change its composition and become turbid

SECTION II (ESSAY 40 MARKS)

1. i) Outline the application of microbiology in the modern medicine (10 marks)
ii) 'With the aid of a well labelled diagram, discuss phases of a bacterial growth curve (10 marks)
2. i) Outline factors influencing microbial resistance to drugs (10 marks)
ii) State and explain types of culture media used in a medical laboratory (10 marks)