**KENYA MEDICAL TRAINING COLLEGE – NYAMIRA**

**RE-SIT END OF FIRST SEMESTER EXAMINATION**

**MARCH 2013 KRCHN CLASS (PRE-SERVICE)**

**MICROBIOLOGY**

DATE: 18/12/2013 TIME: ...........................

**INSTRUCTIONS**

1. Enter your examination number and question number on each page used.
2. ALL questions are compulsory.
3. Omission of and or wrong numbering of a question or part of the question will result in 10% deduction of the marks scored from the relevant part.
4. Do NOT use a pencil.
5. Mobile phones are NOT allowed in the examination hall.

**PART ONE: MCQS (MULTIPLE CHOICE QUESTIONS) MICROBIOLOGY– 20 MARKS**

Q.1. Bacterial growth curve has 4 phase namely except:

1. Lag phase.
2. Log phase.
3. Mesopholic phase.
4. Decline phase.

Q.2. Based on gram stain, cocci can be gram +ve or gram –ve. Give examples of gram +ve cocci:

1. Shigella species.
2. Staphylo cocci.
3. Meningococci.
4. Gonococci.

Q.3. Bacterial growth requires the following except:

1. Oxygen requirement.
2. Nutrient requirement.
3. Energy source.
4. Inability to grow in living tissues.

Q.4. Examples of physical agents of anti-septic include the following except;

1. Sunlight.
2. Filtration.
3. Halogens.
4. Radiation.

Q.5. Drying kills many bacteria but not their\_\_\_\_\_\_\_\_\_\_\_\_.

1. Vegetative form.
2. Lag phase.
3. Spores.
4. Log phase.

Q.6. Tuberculosis disease was discovered by \_\_\_\_\_\_\_\_\_\_\_\_.

1. Koch.
2. Neisser.
3. Loffler.
4. Hoffman.

Q.7. Bacterial capsule has the following functions, except;

1. Prevent drying.
2. Has no major functions in the cell.
3. Block attachment of bacteria to human tissues.
4. Provide bacterial stability by preventing aggration and sitting down.

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Q.8. Spherical shaped bacteria are called:\_\_\_\_\_\_\_\_\_.

1. Cocci.
2. Bacilli.
3. Spirilium.
4. Pleomorphic.

Q.9. Spores are metabolically dormant but grow to vegetative form under appropriate coordination and are:

1. Heat labile.
2. Heat resistant.
3. Endospores only.
4. Exo-spores only.

Q.10. Materials are sterilized for three (3) main purposes in the medical laboratory; excepts;

1. To disinfect contaminated materials.
2. In preparation for taking specimens(needles, syringe tubes must be sterile).
3. To prepare materials or equipment for bacterialogical cultures (e.g petri dishes, Pasteur, pippets etc.)
4. To allow bacterial and other micro-biome growth.

Q.11. Hookworm infection affects the patients by causing;

1. Anaemia
2. Dehydration.
3. Headache.
4. Sickle cell disease.

Q.12. Malaria disease is caused by the following organisms except;

1. Plasmodium malariae.
2. Plasmodium vivax.
3. Entaemoeba histolytico.
4. Plasmodium falciparum.

Q.13. Taeniasis disease is caused by;-

1. Taema saginata.
2. Necator americanus.
3. Entamoeba coli.
4. Trichura trichuris.

**PART ONE: MCQS (MULTIPLE CHOICE QUESTIONS) MICROBIOLOGY– 20 MARKS**

Q.14. What is the main function of antibodies?

1. To reduce antigens.
2. To bind antigens.
3. To produce vaccines.
4. Reduce body immunity.

Q.15. Antigens can be said to be;

1. Proteins in nature.
2. Proteins that can trigger an immunological reaction.
3. Are the only substances that can trigger the production of antibodies.
4. Same as antibodies.

Q.16. Tetanus disease is caused by the following organisms;

1. Clostridium tetani.
2. Clostridium welchii.
3. Clostridium perfringens.
4. Clostridium butyricum.

Q.17. Salmonella species can cause \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_disease.

1. Amoebic.
2. Typhoid fever.
3. Gonorrhea.
4. Shigellosis.

Q.18. Cholera disease is;

1. Caused by vibrioe cholera.
2. Caused by gram positive bacteria.
3. Survives best at acidic PH.
4. Results to production cholera endotoxin.

Q.19. Which of the following is not true for viral infection?

1. Rabies and measles have been contained.
2. HBV vaccination has reduced acute/chronic hepatitis and hepatocellular carcinoma.
3. Varicella and HAV vaccines are now available.
4. Laboratory diagnosis of viral infection is not available.

Q.20. Antibiotics must have the following qualities except;

1. Should have ability to inhibit or destroy micro-organisms.
2. Should not eliminate the normal microbial flora of host.
3. Should not produce undesirable side effects.
4. Should have instant recovery.

**PART TWO: SHORT ANSWER QUESTIONS – MICROBIOLOGY – 40 MARKS**

Q.1. List five (5) examples of human samples of specimens that can be examined in

microbiology. 10 marks

Q.2. Outline 5 reasons why it is important to study nursing as a profession. 10 marks

Q.3. Define the following terminologies:

1. Microbiology.
2. Pathology.
3. Virulence.
4. Virulent.
5. Genetics.
6. Sterilization.
7. Disinfection.
8. Antiseptics.
9. Mycology.
10. Virology. 20 marks

**PART TWO: SHORT ANSWER QUESTIONS – MICROBIOLOGY – 40 MARKS**

Q.1. (a) Tabulate major differences between prokaryotic and eukaryotic cell. 20 marks

1. With the aid of a well labeled diagram, describe a normal bacterial cell. 20 marks