**KENYA MEDICAL TRAINING COLLEGE – NYAMIRA**

**END OF FIRST SEMESTER EXAMINATION**

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

**MICROBIOLOGY EXAMINATION**

DATE: …/9/2013 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. The following represent elements of the innate immunity system except:

1. Body secretions.
2. Commensal organisms.
3. Inflammation.
4. The skin.

Q.2. The process of phagocytosis involves five stages, except:

1. Chemotaxis.
2. Attachments/adherence of phagocytes non-specifically.
3. Pseudopodia.
4. Production of interferrons.

Q.3. What are the main functions of antibodies:

1. They produce zymogens (inactive forms).
2. They bind specifically to an antigen that results in the inactivation of a pathogen preventing their entry into host cells.
3. Produce antigens.
4. They are non-specific.

Q.4. Organs that can be donated and transplanted include:

1. Kidney.
2. Ligaments.
3. Veins.
4. Blood cells.

Q.5. The following symptoms represent organ rejection except:

1. Failure of the organ functioning properly.
2. General / discomfort, uneasiness or ill feeling.
3. No swelling or pain felt.
4. Fever and other symptoms of inflammation.

Q.6. Giardia lamblia is a parasite that causes:

1. Malaria disease.
2. Amoebiasis disease.
3. Cholera disease.
4. Glardiasis disease.

Q.7. Amoebiasis is an infection caused by a pathogen amoeba called:

1. Entaemoeba coli.
2. Entaemoeba histolytica.
3. Bacilli shigella spp.
4. Taenia spp.

Q.8. Which of the following helminthic parasites belong to the nematodes or round worms:

1. Schistoma mansoni.
2. Taenia solium.
3. Ascaris lumbricoides.
4. Echinococcus granulosus.

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Q.9. Hookworm disease develops from a combination of factors listed except:

1. Heavy worm burden.
2. Prolonged duration of infection.
3. The nutritional state of the patient.
4. Individuals who are asymptomatic.

Q.10. The major sequence of hookworm infection is:

1. Gastric ulcers.
2. Vomiting.
3. Foot ulcers.
4. Iron-deficiency anaemia.

Q.11. Tetanus is a neurological disorder caused by a toxic produced by:

1. Clostridium botulinum.
2. Clostridium tetani.
3. Bacillis anthracis.
4. Brucella abortus.

Q.12. Brucellosis is an occupational health hazard of farmers, veterinarians, abattoir workers and butchers. The causative agent is:

1. Salmonella species.
2. Brucella species.
3. Staphylococci species.
4. Streptococci species.

Q.13. Poliomyelitis is an acute viral disease of the nervous system with a wide range of clinical presentation, from asymptomatic infection to paralytic disease. Its causative agent is called:

1. Hepatitis virus.
2. Yellow fever virus.
3. Relapsing fever virus.
4. Polio virus.

Q.14. Antigens originate from the following except:

1. Plants.
2. Fungi.
3. Viruses.
4. Glucose.

Q.15. Syphilis is a chronic multi-system disease caused by a bacterial organism belonging to a family of spirochetes known as:

1. Trichomonas vaginalis.
2. Treponema pallidum.
3. Haemophilus ducrey.
4. Chlamydia trachomatis.

Q.16. Which of the following is not used as prevention and control method of enterobiasis?

1. Regular bathing and hand washing.
2. Practice proper disposal of feaces
3. Cut nails short wash underclothes, nightclothes and bedcovers
4. Avoid treating the whole family.

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Q.17. Bacillary dysentery is an acute diarrhoea disease characterised by bloody stools, fever, vomiting and abdominal cramps. What is its causative agent?

1. Entrmoeba histolystica
2. Staphycocci aureus
3. Stagella dysentriea
4. Giardia lamblia

Q.18. If you suspect an outbreak of cholera in the catchment area of your health centre, do the following except.

1. Prepare large amounts of rehydration fluid.
2. Take stool specimens for culture
3. Ignore their clinical history
4. Give health education on how cholera is spread and how water can be made safe e.g (by boiling)

Q.19. Schistosomiasis is a chronic disease caused by trematodes of the genius.

1. Leishmania.
2. Trypanema.
3. Anopheles.
4. Schistoma

Q.20. There are four (4) different species of the malaria parasites which infect humans. These species include all except:

1. Plasmodium faclciparum.
2. Plasmodium malariae.
3. Plasmodium vivax.
4. Anopheles funesta.

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

Q.1. (a) What is immunology? 4 marks

(b) Name two (2) types of immunology. 4 marks

(c) State four (4) main factors that make the innate immune system important/

significant. 12 marks

Q.2. (a) Briefly describe how body secretions act as a physiological barrier in the innate

immune system. 5 marks

(b) List five (5) signs of inflammation. 5 marks

Q.3. (a) State and explain three (3) characteristics of active-acquired immunity. 6 marks

(b) Differentiate between humoral and cell mediated immunity. 4 marks

**PART THREE: LONG ANSWER QUESTIONS (ESSAYS) MICROBIOLOGY – 20 MARKS**

Q.1. Describe briefly the life cycle of Ascaris lumbricoides in human beings. 10 marks

Q.2. Taeniasis is an infection of human by tapeworms. Describe the life cycle of

Taenia solium in human beings. 10 marks