**KENYA MEDICAL TRAINING COLLEGE – NYAMIRA**

**END OF FIRST BLOCK EXAMINATION**

**MARCH 2012 KRCHN CLASS (PRE-SERVICE)**

**KEPI AND COLD CHAIN**

DATE: 18/3/2013 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) KEPI**

Q.1. Administration of measles vaccine is given as follows:-

1. Intramuscular injection of the gluteal muscles 0.5ml.
2. Hypodermic injection in the upper aspect of the thigh 0.25ml.
3. Subcutaneous injection in the devitold muscle of the upper arm 0.5ml.
4. Intramuscular injection in the devitoid muscles of the upper arm 0.1ml.

Q.2. A child aged 11 months old is brought to MCH clinic for the first time since birth with history of fever and vomiting and no immunization has been given. The action of a nurse shall be to:-

1. Refer the child for anti-malarial investigations then treat and with hold giving immunization till the baby recovers.
2. Give the baby all first doses of immunizations, send for investigations and treat the cause of the problem.
3. Give the baby measles vaccinations only since it was due at 9 months.
4. Avoid all the immunizations till the baby is treated and is well enough to be vaccinated.

Q.3. Cold chain is defined as a system of:-

1. Transporting vaccines from the manufacturer to the consumer.
2. Maintaining vaccines potent in health facility.
3. Immunizing children and expectant mother with potent vaccine.
4. Maintaining vaccines in a potent state from manufactures to the consumer.

**PART ONE: MCQS (MULTIPLE CHOICE QUESTIONS) KEPI**

Q.4. Measles is dried heat sensitive vaccine which at central or district stores should be kept at a temperature of:-

1. 200C.
2. +20C to 80c.
3. -150C to -250C.
4. 00C to -50C.

Q.5. Which of the following are living attenuated vaccine:-

1. B.C.G, Cholera
2. Polio, rabies.
3. Measles, DPT, HEPB, HIB
4. Polio, BCG.

Q.6. Pneumococcal disease is transmitted by:-

1. By malaria.
2. By poor hygiene.
3. By droplets during coughing or sneezing.
4. By eating contaminated food.

Q.7. The following are roles for maintaining the cold chain:-

1. Keep vaccines cold and away from sunlight, distribute the vaccines efficiently, look after equipment.
2. Defrost the refrigerator every week, distribute the vaccines efficiently, keep the vaccines cold and away from sunlight.
3. Order the amount of vaccines needed, discard the opened vaccines after 4 hours, distribute the vaccines efficiently.
4. Summoning the technician to check the refrigerator every day.

Q.8. The most appropriate action to take when a child who is very sick is brought for immunization is:-

1. Withhold immunization until the child has recovered.
2. Immunize and send the child for treatment.
3. Admit the child for treatment but immunize before discharge.
4. Treat the child and send them back home.

Q.9. A pregnant woman who has been fully immunized with tetanus toxoid during the first pregnancy, within two years after the first pregnancy will get tetanus toxoid immunization as follows:-

1. One tetanus toxoid injection as soon as she is diagnosed to be pregnant.
2. Two tetanus toxoid injection with 2 weeks interval between them, in the first trimester of pregnancy.
3. Three tetanus toxoid injection within 4 weeks interval between third trimester of pregnancy.
4. Two tetanus toxoid injection within 4 weeks interval between them as soon as the pregnancy is diagnosed.

Mark the following statements whether true or false for **Q.10** and **Q.11**.

Q.10. (a) The vaccine vial monitor (vvm) on the vaccine vial shows whether the vaccine has been

exposed to high temperatures and the duration for which it has been exposed to such

temperature.

(b) PCV 10 vaccine should not be given to a child with high fever (temperature >390C )

Wait until the condition improves.

Q.11. (a) RCW 42EG is a compression type of refrigerator and uses higher gas or electricity.

(b) In the district vaccine BCG, Measles an polio vaccines are stored in ice lined refrigerator

at -150C to -250C because they lose potency when stored in absorption type of

refrigerator.

Q.12. Innate immunity is that which:-

1. A person acquires after an attack from a disease.
2. Develops through interaction with individual with an infectious disease.
3. Develops following artificial immunization.
4. Individual posses by virtue of his genetic make up.

Q.13. Immunization given to a two year old child on first contact are:-

1. Polio, measles, pentavalent I.
2. Polio, Hepatitis B, Pentavalent I, Measles.
3. BCG, Pentavalent I, measles, tetanus toxoid.
4. Pentavalent I, tetanus toxoid, hepatitis B.

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

Q.1. State five (5) principles of the Kenya Expanded Program on immunization. 5 marks

Q.2. Explain the following terms used in immunology:-

1. Natural immunology.
2. Artificial immunology.
3. Passive immunology. 6 marks

Q.3. Define the following terms:-

1. Antibody
2. Antigen.
3. Vaccine.
4. Immunization.
5. Leukocytosis. 5 marks

Q.4. (a) List the three (3) main types of granulocytes. 1 ½ mark

(b) Explain two (2) main ways in which pneumococcus is transmitted through. 4 marks

(c) Explain three (3) ways in which an individual gets immunity. 6 marks

Q.5. Explain how you can defrost a refrigerator. 5 marks