AMREF INTERNATIONAL UNIVERSITY

SCHOOL OF MEDICAL SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES

KENYA REGISTERED COMMUNITY HEALTH NURSING

End of Semester Examination Dec 2024

COURSE CODE AND TITLE: DNS 119: Immunisation

DATE: FRIDAY 6TH DECEMBER 2024

TIME: 2 Hours **START:** 0900 HOURS **FINISH:** 1100 HOURS

INSTRUCTIONS

1. This exam will be marked **out of 70 Marks**
2. ALL Questions are compulsory.
3. The Examination has Three Sections: Section I- Multiple Choice Questions, Section II: Short Answer Questions,
4. Answer all Questions in the ANSWER BOOKLET provided
5. Do Not write anything on the question paper -use the back of your booklet for rough work if need be.

SECTION I: MULTIPLE CHOICE QUESTIONS 20MARKS

1. The first vaccine developed was against: -
   a. Chicken pox
   b. Small pox
   c. Measles
   d. Tuberculosis
2. One of the following disease is prevented by a vaccine admistered as a nasal spray
   a. Measles
   b. Rubella
   c. Influenza
   d. Poliomyelitis
3. One of the following is a combined vaccine
   a. Tetanus toxoid vaccine
   b. MMR vaccine
   c. Measles vaccine
   d. Pneumococcal conjugate vaccine
4. Pentavalent vaccine protects against: -
   a. DPT, polio, rubella
   b. DPT, hepatitis B, rotavirus
   c. DPT, haemophilus influenza type-b, hepatitis B
   d. DPT, haemophilus influenza type-b, hepatitis C
5. Toxoid vaccines are given against the following: -
   a. Tetanus
   b. Diphtheria
   c. Chickenpox
   d. Both A &B above
6. The vaccine that may be administered intradermally is:-
   a. BCG vaccine
   b. IPV
   c. OPV
   d. Measles vaccine
7. The process of introducing a weakened pathogen into a human body is:-
   a. Immunization
   b. Vaccination
   c. Attenuation
   d. Injection

8. The type of vaccine that uses attenuated (weakened) form of the virus is:-
    a. Live vaccine
    b. Killed vaccine
    c. Inactivated vaccine
    d. Lyophilized vaccines
9. The type immunity obtained when maternal antibodies are passed to their babies is:-
    a. Active natural immunity
    b. Active artificial immunity
    c. Passive natural immunity
    d. Passive artificial immunity
10. Oral polio vaccine is a:-
    a. Toxoid vaccine
    b. Live attenuated vaccine
    c. Killed vaccine
    d. Inactivated vaccine
11. One of the following is not a vaccine preventable disease
    a. Cervical cancer
    b. Asthma
    c. Hepatitis B
    d. Rabies
12. Passive immunity includes:-
    a. Introduction of antibodies directly
    b. Transfer of maternal antibodies across placenta
    c. Transfer of lymphocytes directly
    d. All of the above
13. An example of a polysaccharide vaccine is:-
    a. Sabin and Salk vaccines
    b. Hib vaccine
    c. Hepatitis A vaccine
    d. Pneumococcal conjugate vaccine
14. The importance of maintaining adequate "herd immunity" is:-
    a. It increases the chance of an outbreak, which allows for the population to formulate natural active immunity.
    b. It protects those who are not immunized or for whom the vaccine did not work, in a community that has adequate coverage.
    c. It lowers the cost of vaccines when buying in bulk.
    d. It eliminates all vaccine preventable diseases.

15. An adjuvant is:-
    a. A chemical added to multidose, killed or subunit vaccine to prevent serious secondary infections as a result of bacterial or fungal contamination (eg. thimerosal, phenol).
    b. A substance added to support the growth and purification of specific immunogens and/or the inactivation of toxins (eg. antibiotics, formaldehyde).
    c. A substance added to a vaccine to enhance the immune response by degree and/or duration making it possible to reduce the amount of immunogen per dose (eg. aluminum hydroxide).
    d. A substance added to confirm product quality or stability by controlling acidity, stabilizing immunogens or preventing loss of immunogenicity (eg. potassium salts, human serum albumin, gelatin and bovine reagents).
16. The following BEST describes the term "cold chain" and how it is maintained:-
    a. The cold chain is a method of maintaining appropriate cool temperature of the vaccines during transport.
    b. The cold chain refers to the chain of people involved with transporting and handling vaccines from the manufacturer to the time of administration.
    c. The cold chain maintains appropriate cool temperatures while storing vaccines.
    d. The cold chain refers to all equipment and procedures applied to ensure vaccines are protected from inappropriate temperatures and light, from the manufacturer to the time of administration.
17. The appropriate recommendations for vaccine storage is:-
    a. All vaccines are removed from the original boxes for easy access and exposure to light.
    b. A designated person checks the expiry dates on a regular basis and ensures the refrigerator is maintained at 2 - 8 ° C.
    c. All plastic water bottles, previously used to stabilize temperatures, should be removed to create more room.
    d. Keep the newest vaccines at the front of the refrigerator to make sure the vaccines are fresh and the immunogenic properties are intact.

18. Appropriate action for a preterm born at 34 weeks gestation is:-
    a. Delay vaccination by 3 weeks to ensure the neonate catches up with term age
    b. Delay immunization until the neonate is 3.5kgs
    c. Immunize according to approved childhood vaccination schedule
    d. Ensure the neonate is admitted to gain weight then only immunize at discharge

19. The minimum interval between similar vaccines in a schedule is:-
    a. 6 weeks
    b. 4 weeks
    c. 16 weeks
    d. 2 months
20. Contraindications to giving live vaccines include:-
    a. Allergy to vaccine component, preterm delivery, small for gestational age, and cardiac anomaly.
    b. Allergy to vaccine component, severely immunocompromised, and concurrent minor illness (ie. cold, cough).
    c. Allergy to vaccine component, severely immunocompromised, pregnancy, breastfeeding.
    d. Allergy to vaccine component, severely immunocompromised, pregnancy.

SECTION II: SHORT ANSWER QUESTIONS (50 MARKS)

1. State four (4) differences between active and natural immunity (4 Marks)
2. State five (5) immunization related interventions for a child who is brought to the hospital for the first time at 3 months after birth (5 Marks)
3. Outline six (6) key points to put in place when conducting immunization services as nurse (6 Marks)
4. State five (5) ways of preventing vaccine drop-out rates in immunization programs (5 Marks)
5. State four (4) documents that needs to be filled in immunization programs (4 Marks)
6. Outline five (5) causes of vaccine wastages in immunization programs (5 Marks)
7. State six (6) ways of reducing missed opportunities in immunization programs (6 Marks)
8. Outline six (6) components of effective immunization programs (6 Marks)
9. State five (5) vaccine cold chain monitoring tools (5 Marks)
10. State four (4) serious adverse effects following immunization (AEFI) (4Marks)