



KENYATTA UNIVERSITY

EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (MEDICAL LABORATORY SCIENCE)

HML 217: CLINICAL VIROLOGY

2ND SEMESTER 2022/2023

TIME: 2 HOURS

INSTRUCTIONS:

SECTION A: ANSWER ALL THE QUESTIONS (4 MARKS EACH)

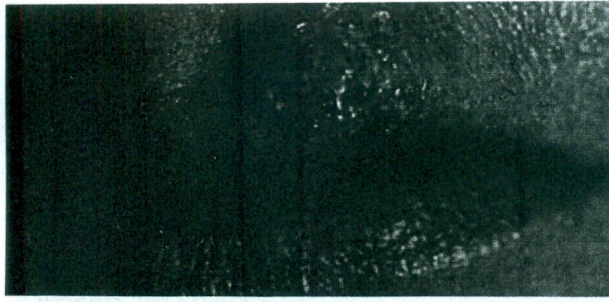
1. State the primary transmission route of the following viruses;
 - a) Hepatitis A virus (1 mark)
 - b) Coxsackie viruses (1 mark)
 - c) Epstein-Barr virus (1 mark)
 - d) Parvovirus B19 (1 mark)
2. Outline the prevention interventions in Herpes Simplex Virus-associated infections (4 marks)
3. List FOUR viruses that cause common cold (4 marks)
4. Describe the complications associated with Human influenza virus infection (4 marks)
5. Explain the Norovirus features that enhance host infection (4 marks)

SECTION B: ANSWER ONE QUESTION (20 MARKS)

6. Describe the;
 - a) clinical findings in Poliovirus infections (10 marks)
 - b) complications in Measles virus infections (10 marks)
7. a) Describe the prevention strategies in Hepatitis B virus infections (8 marks)
b) Discuss the pathogenesis of Human T-cell lymphotropic virus (12 marks)

**SECTION C: ANSWER ALL THE QUESTIONS ON THE ANSWER BOOKLET
MARK EACH)**

1. Rotavirus infections are characterized by the following, except?
 - a) Watery, non-bloody diarrhea
 - b) Nausea
 - c) Vomiting
 - d) Bloody diarrhea
2. Which of the following viruses is associated with aplastic anemia?
 - a) Hepatitis E
 - b) Parvovirus B19
 - c) Molluscum Contagiosum Virus
 - d) Varicella-Zoster Virus
3. Multinucleated giant cells with intranuclear inclusion bodies observed in the temporal lobe lesion are characteristic in infection by which of the following;
 - a) Human herpesvirus 8
 - b) Cytomegalovirus
 - c) Epstein-Barr virus
 - d) Varicella-zoster virus
4. Which of the following viruses can cause an outbreak of jaundice among young children in a day care center?
 - a) Hepatitis D virus
 - b) Hepatitis A virus
 - c) Hepatitis B virus
 - d) Hepatitis C virus
5. The following are complications in chronic Hepatitis B infections, except?
 - a) Glomerulonephritis
 - b) Cryoglobulinemia
 - c) Vasculitis
 - d) Pneumonia
6. Which one of the following is incorrect about Varicella?
 - a) The acquired immunity is lifelong
 - b) Infection is acquired only once
 - c) The infection is characterized by prodromal symptoms of fever and malaise
 - d) Infection can recur late in life



- a) Human Herpes Virus-8
 - b) Herpes Simplex Virus -1
 - c) Herpes Simplex Virus -2
 - d) Varicella-Zoster Virus
8. Spinal fluid examination findings in Herpes Simplex Virus-associated encephalitis show the following, except?
- a) Moderate lymphocytosis
 - b) Moderately elevated protein
 - c) Neutropenia
 - d) Elevated glucose levels
9. Cervical intraepithelial neoplasia is associated with;
- a) Human papillomavirus (HPV) -16 and HPV-18
 - b) HPV-6 and HPV-11
 - c) HPV-1
 - d) HPV-4
10. The most prominent systemic Cytomegalovirus infections in immunocompromised patients include the following, except?
- a) Septicemia
 - b) Pneumonitis
 - c) Esophagitis
 - d) Hepatitis
11. Hepatitis C virus (HCV);
- a) is a defective virus and depends on hepatitis B virus (HBV) to replicate.
 - b) chronic infections are less frequent than chronic HBV infection.
 - c) chronic infection predisposes to hepatocellular carcinoma.
 - d) Incidences are significantly low following proper sewage disposal

12. Common cold is caused by the following viruses, except?
- a) Influenza C virus
 - b) Coronaviruses
 - c) Adenoviruses
 - d) Caliciviruses
13. Poliovirus;
- a) new antigenic variants arise in coinfection with animal poliovirus strains
 - b) is transmitted primarily by the fecal–oral route
 - c) most common clinical manifestation is paralytic poliomyelitis
 - d) infections control involves the current vaccine recommendation of live attenuated vaccine for the first three immunizations to eliminate carrier states and a killed vaccine as a booster
14. Clinical presentation of hepatitis includes the following, except?
- a) Fever
 - b) Vomiting
 - c) Cystitis
 - d) Elevated transaminase levels
15. Condylomata acuminata is caused primary by;
- a) HPV-1 an HPV-2
 - b) HPV-4
 - c) HPV-3
 - d) HPV-6 and HPV-11
16. Echoviruses cause the following diseases, except?
- a) Hemorrhagic colitis
 - b) Upper respiratory tract infections
 - c) Aseptic meningitis
 - d) Infantile diarrhea
17. Cytomegalovirus enters latent state primarily in which one of the following;
- a) Dendritic cells
 - b) T-lymphocytes
 - c) Neutrophils
 - d) Monocytes

18. Infectious mononucleosis caused by Epstein-Barr virus is characterized primarily by the following, except?

- a) Fever
- b) Vomiting
- c) Sore throat
- d) Splenomegaly

19. Rhinoviruses:

- a) cause of viral meningitis and myocarditis
- b) vaccine is recommended in children over 2 years
- c) serologic types cause various infections
- d) infect the upper gastrointestinal tract and causes of viral diarrhea

20. Burkitt's lymphoma is associated with:

- a) Epstein-Barr virus
- b) Human Herpesvirus 8
- c) Cytomegalovirus
- d) Parvovirus B19