

Examination : 2023
Medical Lab Technician

Time : 1.5 Hrs

M.M. :50

Set:- 1

1. AIDS stands for

- Acute Infectious Disease Syndrome Acquired Immunodeficiency Syndrome
- Aggressive Infectious Disease Syndrome None of the above

2. Quality assessment methods used in the National program are:

- Proficiency testing On-site evaluation
- Re-checking/ Re-testing All of the above

3. Standard Operating Procedures (SOPs) are:

- General Documents Controlled documents
- Inventory records Policy

4. Which of following is the largest Immunoglobulin?

- IgM IgG
- IgD IGE

5. HIV infects___

- Y-helper cells T-helper cells
- K-helper cells None of the above

6. Effectiveness of antiretroviral therapy is measured by:

- A fall in the plasma viral load and an increase in the CD4 count. A rise in red blood cell count and hemoglobin level.
- A rise in plasma HIV antibodies level. A reduction in opportunistic infections.

7. Which of these diseases involves a problem with the red blood cells?

- leukocytosis
- leukemia
- haemophilia
- sickle-cell anemia

8. Immunological failure in HIV is

- CD4 cell count > 500
- CD4 cell count > 1500
- CD4 cell count > 1000
- CD4 cell count < 200

9. What is the approx. %age of transmission of HIV by needle stick exposure?

- 3%
- 30%
- 0.30%
- None of the above

10. What is p24?

- Envelop antigen in HIV
- Core antigen in HIV
- Genome of HIV
- Shell antigen

11. The specific gravity of urine and total solids are measured by a

- photometer.
- polarimeter.
- coulometer.
- refractometer

12. Pyrimidine base:

- Adenine
- Thymine
- Guanine
- Uric acid

13. One of the following is not the known route of transmission of HIV infection:

- Sexual contact with an HIV positive individual
- Mother to child transmission when mother is HIV positive
- Transmission through blood infected with HIV
- Casual community contact with a HIV positive individual

14. Which device is used to calibrate the speed of centrifuge?

- Odometer
- Tachometer
- Speedometer
- Metronome

15. Which cell are damaged by HIV infection

- | | |
|----------------------------------|------------------------------------|
| <input type="checkbox"/> RBCs | <input type="checkbox"/> WBCs |
| <input type="checkbox"/> B cells | <input type="checkbox"/> CD4 CELLS |

16. For transportation of biological specimen what is necessary?

- | | |
|---|---|
| <input type="checkbox"/> Declaration about specimen that you are shipping an infectious sample. | <input type="checkbox"/> Bio hazard label |
| <input type="checkbox"/> Spillage kit with instruction | <input type="checkbox"/> All of above |

17. In a laboratory setting what does SOP stands for?

- | | |
|--|---|
| <input type="checkbox"/> Special Operating Procedure | <input type="checkbox"/> Standard Operating Procedure |
| <input type="checkbox"/> Safety Operating Protocol | <input type="checkbox"/> Scientific Observations |

18. After exposure PEP should ideally be taken within

- | | |
|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> 2 hours | <input type="checkbox"/> 4 hours |
| <input type="checkbox"/> 24 hours | <input type="checkbox"/> 48 hours |

19. Which of the following is a symptom of AIDS?

- | | |
|------------------------------------|--|
| <input type="checkbox"/> Fever | <input type="checkbox"/> Swollen lymph nodes |
| <input type="checkbox"/> Tiredness | <input type="checkbox"/> All of the above |

20. In HIV window period indicates:

- | | |
|---|---|
| <input type="checkbox"/> Time period between infection and onset of first symptoms | <input type="checkbox"/> Time period between infection and detection of antibodies against HIV |
| <input type="checkbox"/> Time period between infection and minimum multiplication of the organism | <input type="checkbox"/> Time period between infection and maximum multiplication of the organism |

21. String test is used for

- | | |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> B.Antracis | <input type="checkbox"/> V.Cholerae |
| <input type="checkbox"/> B.Abortus | <input type="checkbox"/> P.Mallei |

22. Abnormal fat catabolism produces

- | | |
|---|--|
| <input type="checkbox"/> ketone bodies | <input type="checkbox"/> glycosuria. |
| <input type="checkbox"/> almentary glycosuria | <input type="checkbox"/> orthostatic proteinuria |

23. For CD4 testing, which method of Pipetting should be preferred?

- Reverse Forward
 Repetitive Whole Blood

24. Other than water, the most common component of plasma is

- chloride urea
 protein sodium

25. What is EQAS?

- External Quality Accuracy system External Quality Application Strategy
 External Quality Assessment Scheme None of the above

26. All of the following are the effective current preventive methods for HIV infection except

- Practice safe and protected sex Taking pre-exposure prophylaxis (PrEP) medications for individuals at higher risk of HIV
 Use of shared injection needles for drug use Safe blood transfusion method

27. Which of the following enzyme is required for the viral replication process and plays a critical role in the pathogenesis of HIV infection?

- RNA polymerase DNA polymerase
 RNA polymerase II Reverse transcriptase

28. NK (Natural Killer) cells provides immunity against

- Bacteria Fungus
 Chlamydia Virus

29. Following is not an Antiretroviral drug

- Tenofovir Lamivudine
 Zidovudine Azithromycin

30. The malarial sporozoite in man invades:

- White blood cells
- Reticulo-endothelial cells
- RBCs
- all of the above

31. ART starts in HIV positive patients when the CD4 count is

- less than 200
- more than 500
- more than 250
- irrespective of CD4 count

32. Which of the following is an important molecule present in the outer membrane of HIV that helps the virus to enter and infect host cells?

- Polysaccharides
- Proteins
- Glycoproteins
- Lipopolysaccharides

33. The decision to begin antiretroviral therapy is based on

- the CD4 cell count
- The intensity of the patient's clinical symptoms.
- the plasma viral load
- None of the above

34. All of the following are examples of clinically important specimens that can be taken from a HIV infected patient for the laboratory diagnosis of HIV infection, EXCEPT?

- Blood
- Genital secretions
- Saliva with the presence of blood
- Urine with no presence of blood

35. Identify the correct order of spill management 1. Absorbent material 2. Waste bag 3. Gloves 4. Hypochlorite solution

- 3→1→4→2
- 3→2→1→4
- 1→2→3→4
- 4→3→2→1

36. Levy Jennings chart for validation of test results usually employs the range of:

- Mean 1SD
- Mean 3SD
- Mean 2SD
- Mean 4SD

37. HIV is believed to have evolved from a similar virus found in which animal?

- Baboon
- Elephant
- Chimpanzee
- Guinea pig

38. Red blood cells survive around _____ days.

- 120 240
 10 360

39. In the patients of AIDS CD4 cells count

- <200/ μ l >200/ μ l
 <400/ μ l >400/ μ l

40. Cluster of differentiation (CD)are present on

- surface of cells in the cytoplasm
 in the nucleus in the mitochondria

41. Escherichia coli usually grow on EMB agar exhibiting

- swarming. pink-blue colonies.
 a pink periphery and a blue-black center. black colonies with a green metallic sheen

42. HIV can also spread through

- Sharing water Breathing in infected droplets
 Sharing needles Kissing

43. How does HIV become AIDS?

- HIV attacks the T cells HIV makes multiple copies of itself
 HIV destroys cells in the body All of above

44. PPE (Personal Protective Equipment) includes

- Apron Gloves
 Shoe cover All of above

45. During this phase, the person becomes infected and the virus is active. It is attacking T-cells and slowly weakening immune system. The infected person feels well and healthy

- Asymptomatic Phase 1 Symptomatic Phase 2
 Phase 3, AIDS All of the above

46. HIV can be transmitted by

- Blood or blood products
- Infected Needles
- sexual contact
- All of above

47. The recommended storage temperature of most of the HIV diagnostic kits is

- 00 degree Celsius
- 2-8 degree Celsius
- 300 degree Celsius
- 700 degree Celsius

48. In individuals with HIV, opportunistic infections are:

- More frequent
- Less frequent
- Non-existent
- None of the above

49. Mother to child transmission of HIV occurs

- During pregnancy
- During delivery
- Breast feeding
- All of above

50. One of the following is false with respect to the HIV testing and reporting process:

- Testing must follow informed voluntary written consent from the patient
- Testing must be accompanied by pre and post test counseling
- Testing must be done as per the NACO HIV testing strategies and guidelines
- HIV test results may be conveyed on phone or by fax.

SET -1
Answer key

1	b
2	d
3	b
4	a
5	b
6	a
7	d
8	d
9	b
10	c
11	d
12	c
13	d
14	c
15	d
16	d
17	b
18	a
19	d
20	b
21	b
22	a
23	c
24	c
25	c
26	c
27	d
28	d
29	d
30	b
31	d
32	b
33	d
34	d
35	a
36	b
37	b
38	a
39	a
40	a
41	d
42	c
43	d
44	d
45	a
46	d
47	b

48	a
49	d
50	d