

GENESIS

(Post Graduation Medical Orientation Centre)

Crash Foundation Batch

Total Number- 100

Pass Mark-70

Topic: Immunology & Virology

Question 31-50 is based on Single answers

Time: 40 Min

Date: 14/03/20

1. Complement component C3b

- a) Directly kill bacteria
- b) Is an anaphylatoxin
- c) Is chemotactic
- d) Opsonizes bacteria
- e) Is derived from C3

FFFTT [Ref: Lange 14th P- 544]

2. Hyperacute rejection of grafts

- a) Occurs within 2-4 days of transplantation
- b) Associated with T-cell mediated reaction
- c) May be minimized by matching blood group
- d) Occurs in autograft
- e) Mediated by preformed antibodies

FFFTT [Davidson -23rd /box- 4.25/P- 88]

3. Direct Coomb's test is positive in

- a) Systemic lupus erythematosus
- b) Hemolytic transfusion reaction
- c) Hemolytic disease of newborn
- d) Microangiopathic haemolytic anaemia
- e) Paroxysmal nocturnal haemoglobinuria

FTTFF

4. Immuno-suppression for transplantation may be induced by

- a) Lymphoid irradiation
- b) Cyclosporin
- c) Interferon α
- d) Plasmapheresis
- e) Antilymphocytic serum

TFTFT [Ref: Davidson/23rd/Box-4.26/P-89, Lange/15th/P-535]

5. Active immunity is induced by

- a) Placental transfer of antibody
- b) Contracting specific infection
- c) Viral infection
- d) Conjugate vaccination
- e) Injection of monoclonal antibody

FTTTF

6. The following conditions are associated with a polyclonal gammopathy

- a) Waldenstrom's macroglobulinaemia
- b) Rheumatoid arthritis
- c) Down's syndrome
- d) Wiskott-Aldrich syndrome
- e) Post-streptococcal glomerulonephritis

FTFFT

7. Following are congenital T cell immune deficiencies

- a) DiGeorge's syndrome
- b) Bruton's agammaglobulinemia
- c) Chronic mucocutaneous candidiasis
- d) IL-12 receptor deficiency
- e) Selective IgA deficiency

TFTTF

8. Regarding natural killer cells

- a) Kill virus infected cells and cancer cells
- b) Large granular lymphocytes
- c) IL-2 and - interferon α are potent activators of NK cells
- d) Produce gamma interferon that activates macrophages
- e) Have immunologic memory and have no T-cell receptor

TTFTF (Lange 489)

9. Components of CMI include

- a) CD4- lymphocyte
- b) Memory T cell
- c) Platelet
- d) Basophil
- e) Macrophage

TTFFT (Lange -477)

10. Vaccine contain sub-unit

- a) Live influenza vaccine
- b) Killed influenza vaccine
- c) Hepatitis B vaccine
- d) Polio vaccine
- e) Hepatitis A viral vaccine

FTTFF

11. Following are the statements about primary immune response

- a) Responding B cell is memory B cell
- b) IgG predominates
- c) Time of peak response generally 7-10 days
- d) Antibody affinity is lower
- e) Antibody affinity is higher

F (Memory cell response occurs in secondary response) F (IgM predominant) T F (Antibody affinity & production is less in primary response) [Lange- 516]

12. Following are features of acquired immunity

- a) Develops upon contact with antigen
- b) Highly specific
- c) Effective immediately after exposure to microbe
- d) Present in both vertebrates & invertebrates
- e) There is always immunologic memory

TTFFT

13. Following are secondary lymphoid organs

- a) Bone marrow
- b) Lymph nodes
- c) Spleen
- d) Thymus
- e) Mucosal associated lymphoid tissue

FTTFT

14. Autoimmune diseases associated with HLA B27 are

- a) Ankylosing spondylitis
- b) Postgonococcal arthritis
- c) Acute anterior uveitis
- d) 21-hydroxylase deficiency
- e) Systemic lupus erythematosus

TTTFF

15. Professional APC

- a) T Lymphocytes
- b) Macrophage
- c) Monocytes
- d) Dendritic cells
- e) Plasma cells

FTTTF

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FTTFF

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TTFFT [Ref: Davidson/23rd/Box-4.26/P-89, Lange/15th/P-535]

18. Autoimmune diseases associated with HLA B27 are

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TTTFF

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FTFFT

20. Following are congenital T cell immune deficiencies

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TTFTF

21. Conditions associated with T cell immunodeficiency

- a) Bruton's Agamaglobulinemia
- b) Job's Syndrome
- c) Chediak-Higashi Syndrome
- d) Hyper IgM Syndrome
- e) DiGeorge Syndrome

FFFTT (Lange-561)

22. Post-exposure prophylaxis by vaccination is recommended for

- a) Hepatitis A virus
- b) Hepatitis B virus
- c) Human immunodeficiency virus
- d) Rubella virus
- e) Rabies virus

TTTFT [Ref: Wikipedia]

23. Immunologically mediated diseases are

- a) Parkinson's disease
- b) Myasthenia gravis
- c) Duchenne muscular dystrophy
- d) Grave's disease
- e) Multiple sclerosis

FTFTT [Ref: Lange/14th/P-569,570]

24. The organ-specific autoimmune diseases are

- a) Rheumatoid arthritis
- b) Autoimmune haemolytic anaemia
- c) Scleroderma
- d) Myasthenia gravis
- e) Systemic lupus erythematosus

FTTFF [Lange 14th P-571,572]

25. Diseases mediated by type –III hypersensitivity

- a) Rheumatic fever
- b) Systemic lupus erythematosus
- c) Hashimoto's thyroiditis
- d) Vasculitis
- e) Grave's disease

FTFFF

26. RNA nonenveloped viruses are

- a) Herpesvirus
- b) Rabies
- c) HTLV
- d) HIV
- e) Rhinovirus

TFFFT (Lange 14th287)

27. Regarding rubella virus

- a) Epidemics occurs every 5 years
- b) Initial replication in nasopharynx
- c) Incubation period is 14-21 days
- d) Rash is due to cell mediated vasculitis
- e) Surface spikes contain neuraminidase

FTTFF (Lange 14th324)

28. Hepatitis B virus

- a) DN A dependant DNA polymerase
- b) Occurs mainly in children
- c) Cytotoxic T-cells gives immunity
- d) Transmitted by breast feeding
- e) 90% infected neonate become chronic carrier

TFTFT (Lange 14th345)

29. Chikungunya virus

- a) Fever may be followed by afebrile phase
- b) Blood borne virus
- c) Vesicular rash may develop in children
- d) Main vector is aedes aegypti mosquito
- e) Neutrophilia and hyponatraemia are common

TFTTF (Davidson 23rd250)

30. Organism causing oral ulcer in AIDS

- a) EBV
- b) P. jiroveci
- c) C. neoformans
- d) H. capsulatum
- e) HSV1

FFFTT (Lange 14th385, Box452)

Each question below contains five suggested answers-choose the one best response to each Question (31-50)

31. Main advantage of passive immunization over active immunization is that-

- a) Provides antibody more rapidly
- b) Antibody persist for a longer period
- c) Immunological memory
- d) Contains primary IgM
- e) Having no risk of hypersensitivity

A

32. Complement can enhance phagocytosis because of presence of receptor on macrophages and neutrophils

- a) C_{5a}
- b) C_{3a}
- c) C_{3b}
- d) Factor D
- e) C₇

C

33. Which of the following is associated with hyperacute allograft rejection?

- a) Cytotoxic T cells
- b) Decay-accelerating factor
- c) MHC class II
- d) Natural killer (NK) cells
- e) Pre-existing humoral antibodies

E

34. Humoral immunity neutralizes

- a) Virus
- b) Intracellular bacteria
- c) Toxins
- d) Fungi
- e) Tumor

C

35. Transplant related immunosuppressive monoclonal antibody is

- a) Basiliximab
- b) Infliximab
- c) Natalizumab
- d) Rituximab
- e) palivizumab

A [Ref: LANGE/11th/418]

36. Cell of innate immunity?

- a) Neutrophil
- b) Eosinophil
- c) Basophil
- d) Macrophage
- e) APC

A

37. Cytokines related with helper T cell except

- a) IL 1
- b) IL 2
- c) IL 4
- d) IL 5
- e) IFN GAMMA

A

38. B cell markers are except

- a) B7
- b) Ig M
- c) Ig D
- d) CD 56
- e) CD 20

D

39. Positive acute phase reactant

- a) Transferrin
- b) Albumin
- c) Uric acid
- d) Macroglobulin
- e) Apolipoprotein

D

40. Receptors present in Fc portion of IgG except

- a) Complement
- b) Macrophage
- c) NK cell
- d) Syncytiotrophoblastic cell
- e) EB virus

E

41. Classical pathway activators except

- a) IgM
- b) IgG1
- c) IgG2
- d) IgG3
- e) IgG4

E

42. Anaphylactoid causing drugs except

- a) Aspirin
- b) NSAID
- c) Opiates
- d) Penicillin
- e) Radiocntrast media

D

43. Type IV hypersensitivity

- a) SLE
- b) Rheumatoid arthritis
- c) Graves disease
- d) Rheumatic fever
- e) Nickel hypersensitivity

E

44. Anti-inflammatory cytokine is

- a) IL1
- b) IL4
- c) IL5
- d) TGF beta
- e) IL10

E

45. Hereditary angioedema is not consistent with

- a) Autosomal dominant disorder
- b) Bradykinin
- c) Low complement C3 in acute attack
- d) Androgens
- e) Icatibant

C

46. Which virus cause perinatal infection through breast feeding

- a) Hepatitis B
- b) Parvovirus B19
- c) Human papilloma virus
- d) Herpes simplex
- e) Cytomegalo

E (Lange 14th255, Table 322)

47. An AIDS patient's blood shows vascular endothelial cells with many spindle shaped cell and erythrocytes. The associated disease may be

- a) Burkitt's lymphoma
- b) Oral hairy leukoplakia
- c) Kaposi's sarcoma
- d) Infectious mononucleosis
- e) Reye's syndrome

C (Lange 14th299)

48. Which of the following virus produce giant cell?

- a) Rabies
- b) Rubella
- c) Respiratory syncytial
- d) Influenza virus
- e) Rotavirus

C (Lange 14th313)

49. Which one is false regarding measles?

- a) Multinucleated giant cells are formed
- b) Lifelong immunity to infected individual
- c) Can depress cell mediated immunity
- d) Infects cells lining lower respiratory tract
- e) IgG plays major role in neutralizing the disease

D (Lange 14th319)

50. True regarding poliovirus?

- a) Has 2 serologic types
- b) Nonhuman primates are not hosts
- c) Replicates primarily in hepatobiliary system
- d) Virions don't bud from cell membrane
- e) Rarely damages cerebral cortex

E (Lange 14th 334)

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