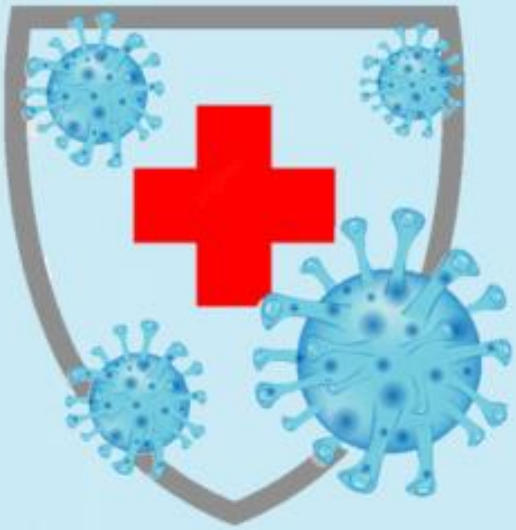


Archive

immunology

Collected by

لجنة الطب والجراحة

1)The Fc receptor with the highest affinity of the following five receptors is:

Select one:

a) CD64

b) FcgRII

c) CD16

d) FceRI

e) CD23

Answer: D

2)Anaphylatoxins C3a and C5a do their function by:

a) Binding their receptors on mast cells

b) Binding their receptors on endothelial cells

c) Binding their receptors on B cells

d) Binding their receptors on DCs

Answer: A

3)Pathogens associated molecular patterns (PAMPs) include All except:

a) Lipopolysaccharides (LPS)

b) Lectin protein

c) Lipoteichoic acid

d) Mannose rich molecules

e) UnmethylatedCpGDNA sequences.

Answer: B

4)The antibody allotype (GM) may present in

Select one:

a) IGA

b) Constant part of IGG

c) IGM

d) IGE

e) Variable part of IGG

Answer: B

5)The IGG with the highest complement activation is:

a) IGG1

b) IGG2

c) IGG3

d) IGG4

e) IGG5

Answer: C

6)_____ of thymocytes is necessary to produce a T-cell repertoire capable of interacting with self-MHC molecules.

Select one:

a) Positive selection

b) Negative selection

c) Apoptosis

d) Receptor editing

e) Isotype switching

Answer: A

7)A lectin pathway in complement activation is all of the following except:

Select one:

a) C3 convertase is the same as in classical pathway

b) Depend on antigen-antibody binding as classical pathway

c) Involve C2 activation

d) Involves C3b

e) Involves C5b

Answer: B

8)A polymorphonuclear neutrophil (PMN):

Select one:

a) Is a bone marrow stem cell.

b) Is a closely similar to a mast cell.

c) Contains microbicidal cytoplasmic granules.

d) Is not a professional phagocytic cell.

e) Has granules which stain with eosin.

Answer: C

9)The paracortical area of lymph node comprises mainly:

Select one:

a) Follicular dendritic cells

b) Plasma cells

c) Neutrophils

d) B-cells

e) T-cells

Answer: E

10)Which of the following is the first stage of T-cell receptor gene rearrangement in alpha: Betta T-cells?

a) V alpha – D alpha

b) D alpha – J alpha

c) V Betta – D Betta

d) D Betta – J Betta

e) V alpha – J alpha

Answer: D

11)After B cells activation in the peripheral lymph nodes All are true except

Select one:

a) B cell converted to CD20+ plasma cells

b) Memory B cell enter circulation

c) Plasma cells reside in the medulla

d) Antibodies enter the circulation

e) B cells from germinal center

Answer: A

12)Which of the following proteins does NOT make up the B cell co-receptor?

Select one :

a) CD19

b) CD21

c) CD20

d) CD81

e) CR2

Answer: C

13)Concerning ADCC all are true except:

a) Antibody is involved

b) It can be carried out by NK cells

c) It leads to activated T cell death

d) It is complement-dependent

e) It can be carried out by eosinophils

Answer: D

14)Variable part of the heavy and chains can be called

a) Allotype

b) Idiotype

c) Epitope

d) Isotype

e) Autotype

Answer: B

15)Pattern recognition receptors on phagocytes include all except

Select one:

a) Scavenger receptor

b) Toll like receptor

c) CR2

d) Fc receptor

e) CR3

Answer: C

16)Paroxysmal nocturnal hemoglobinuria results from deficiency in:

Select one:

a) Myleoperoxidase

b) Decay accelerating factor. (DAF)

c) Classical pathway C components

d) C1 inhibitor

e) CD59

Answer: E

17)The enzyme responsible for isotype switch is

Select one:

a) Activation-induced cytidine deaminase (AID)

b) Synapse

c) RAG-1 and 2 recombinase

d) Artemis endonuclease

e) Ligase

Answer: A

18)Active artificially acquired immunity is a result of _____.

Select one:

a) Injection of an immune serum

b) Contact with a pathogen

c) Antibodies passed on from mother to fetus through the placenta

d) Vaccination

e) Antibodies passed on from mother to baby through breast milk

Answer: D

19)Receptor editing :

Select one:

a) Has been described for B cells before selection stage

b) Is changing the variable part on light chain

c) Is changing the variable part on heavy chain

d) For B-cells only occurs in peripheral lymph node

e) Is changing the constant part in light chain

Answer: B

20)The T cell receptor:

a) Is composed of five polypeptide chains

b) Is secreted into the plasma by the T cell

c) Is the recognition element of the humoral arm of the immune system

d) Recognizes antigen fragments via the alpha and beta chain

e) The signaling element is CD4

Answer: D

21)Where are double positive T cells found?

a) Bone marrow

b) Spleen

c) Thymus cortex

d) Thymus medulla

e) Periphery

Answer: C

22)Which of the following bind antigen at the same time when TCR bind

Select one:

a) LFA-1

b) CD28

c) CD32

d) CD4

e) CD3

Answer: D

23)Which of the following do not bind antigen on T cell activation

Select one:

a) MHC

b) CD4

c) CD8

d) CD3

e) TCR

Answer: D

24)Negative feedback on active B-cell is mediated by:

Select one:

a) Antigen specific IgM

b) Antigen specific IgG

c) Just antigen neutralization

d) Fc gamma receptors on macrophages

e) CD22

Answer: B

25)The main costimulatory molecule for activation on T-cell is provided by:

Select one:

a) CD28

b) Surface Ig

c) B7

d) VLA-4

e) IL-2

Answer: A

26)The CD4 protein of T helper cells binds and stabilize the MHC class II/ peptide structure. The subunit that interacts with CD4 cell surface protein is

Select one:

a) alpha 1 and beta 1 subunit

b) alpha 2 and beta 2 subunit

c) alpha 1 and alpha 2 subunit

d) beta 2 subunit

e) beta 1 subunit

Answer: D

27)an example of a molecule present in memory cells is:

select one:

a) Bcl-2

b) TRAIL

c) Bax

d) FADD

e) Caspase 8

Answer: A

28)Proper hinge region is not present in which of the following antibody?

Select one:

a) IgA

b) IgM

c) IgG1

d) IgD

e) IgG2

Answer:B

29)Fc gamma receptors are all true except

Select one:

a) Present on macrophages

b) FcR2 on B cell

c) FcR1 is high affinity receptor

d) FcR2 on NK

e) After binding the antigen, they help in complement activation

Answer: D

30)Lattice formation happens in all except (lab)

Select one:

a) Antigen-antibody binding

b) Precipitation technique

c) Cell bound antigen binding to antibody

d) Occur at optimal concentration of antigen and antibody

e) Can be seen as line between 2 solution

Answer: C

31)T cell surface receptors for antigen partly recognize

Select one:

a) Cytokines

b) MHC

c) ADCC

d) Antibody

e) IL-2

Answer: B

32)Which of the following key components of the complement pathway can be directly activated by the lectin, pathway?

a) C1

b) C2

c) C5

d) C7

e) C9

Answer: B

33)Complement component C3 in alternative pathway is cleaved by

Select one:

a) C3b

b) C3bBb

c) Factor B

d) Simultaneously by antigen

e) Simultaneously by antigen and antibody

Answer: B

34)Classical complement pathway are all true except

Select one

a) Is an effector arm of adaptive immunity

b) Opsonizes bacteria

c) Produce chemotactic and anaphylatoxin

d) Directly activated by bacteria

e) Is firstly discovered

Answer: D

35)Natural antibodies all are true except

Select one:

a) Poly specific

b) Against microbe carbohydrates

c) High affinity IgM

d) Low affinity IgM

e) Produced without T helping of B cells

Answer: C

36)Isotype switch occur in

Select one:

a) Paracortical area of lymph node

b) Cortex of lymph node

c) Bone marrow

d) Medulla

e) Circulation

Answer: B

37)Digeorge syndrome (lab)

Select one:

a) Genetic defect in cytokines

b) Is an immune deficiency disease

c) Leads to tumor formation

d) Leads to defect in thyroid gland

e) Leads to defect in innate immunity

Answer: D

38)Proliferation of activated T-cells:

Select one:

a) Is stimulated by a single signal induced by engagement of the Tcell receptor with antigen-MHC

b) Requires both the signal induced by engagement of TCR plus

costimulation from B7

c) Requires interaction between LFA-1 and CTLA-4

d) Requires only mutual binding of LFA-3 and CD2 on the antigenpresenting cell and T-cell respectively

e) Can not be stopped

Answer: B

39)Which of the following characteristics is common to both Tcell receptors and immunoglobulins

a) The antigen receptors composed of two identical heavy chains and

two identical light chains

b) Receptor editing for both occurs in bone marrow

c) Their production occurs in bone marrow

d) Somatic recombination V,D and J segments is responsible for the

diversity of antigen binding site

e) Somatic hypermutation changes the affinity of antigen-binding

sites in both and contributes to further diversification

Answer: D

40)Which of the following is NOT true when comparing innate and adaptive immunity?

Select one:

a) Innate responds early and adaptive responds later on

b) Innate has few pathogens (non-self) recognition mechanisms and adaptive has many

c) Innate has immunologic memory and adaptive does not

d) Innate does not show response improvements over time and adaptive does

e) Innate response is non-specific and adaptive is very specific

Answer: C

41)Inflammation is a defensive reaction initiated by infection or tissue injury which causes all except

Select one:

a) Up regulation of adhesion molecules on endothelial cells and leukocytes

b) Cell chemotaxis

c) Increase capillary permeability

d) Arterial construction

e) Increase blood supply to the area

Answer: D

42)IgM: all are true except

Select one:

a) Is firstly produced by B-cell

b) Is most commonly tetrameric

c) Has the same number of constant domains as IgE

d) Is a weak bacterial agglutinator

e) Is the main class of the natural antibodies

Answer: B

43)Pro thymocytes are

Select one:

a) TCR- CD3+ CD4- CD8+

b) TCR- CD3+ CD4- CD8-

c) TCR+ CD3+ CD4- CD8-

d) TCR- CD3- CD4- CD8-

e) TCR-CD3+ CD4+ CD8+

Answer: B

44)All are T-independent B cells except

Select one:

a) Marginal zone B cells

b) B1 cells

c) CD5 B cells

d) Follicular B cells

e) Natural antibody-producing cells

Answer: D

45)CR1 complement receptors on phagocytic cells bind

Select one:

a) Factor H

b) Factor I

c) C3d

d) Only inactive C6

e) C3b

Answer: E

46)Germinal center is incubated with

Select one:

a) Activated T cells

b) Activated B cells

c) Antibodies

d) Naïve B cells

e) Naïve T cells

Answer: B

47)Regarding processed antigen entered the endoplasmic reticulum and bind MHC, all are true except

Select one:

a) the antigen is endogenous antigen

b) the antigen is viral antigen

c) it binds just MHC1

d) can bind MHC2 and MHC1

e) needs peptide transporter to enter endoplasmic reticulum

Answer: D

48)CTLA-4 receptor is

Select one:

a) inhibitory receptor on naïve T cells

b) Inhibitory receptor on active T cells

c) Binds CD28 on APC

d) Inhibitory receptor on macrophages

e) Expressed on naïve T cells

Answer: B

49)The molecules mediating signal transduction following antigen binding to cell surface immunoglobulin on a B-cell are called:

Select one:

a) Ig Fc

b) Ig-alpha and Ig-beta

c) MHC

d) Ig-delta

e) CD8

Answer: B

50)Deletions in the T-cell CD154 (CD40L) gene produce:

Select one:

a) Congenital X-linked agammaglobulinemia

b) IgA deficiency.

c) Deficiency in cytotoxic T-cell activity

d) The hyper—IgM syndrome.

e) Wiskott—Aldrich Syndrome.

Answer: D

51)The mononuclear phagocyte system does not include:

Select one:

a) Monocytes.

b) Kupffer cells

c) Kidney mesangial cells.

d) Microglial cells in brain.

e) Endothelial cells.

Answer: E

52)Comparing the arrangement of TCR genes and BCR genes, the _____ chain is analogous to the heavy (H) chain and the _____ chain is analogous to the light (L) Chain.

Select one:

a) alpha, Beta

b) Beta, alpha

c) gamma, delta

d) Beta, delta

e) delta, alpha

Answer: B

53)Somatic hyper mutation.Select one:

a) Occurs in the Bone Marrow.

b) Involves immunoglobulin V genes

c) Do not need T cell help.

d) Can decrease the affinity of an antibody.

e) Is Changing the variable part on light chain.

Answer: B

54)All are functions of Fc part of antibody except

Select one:

a) Complement activation

b) Antigen opsonization

c) Help in Macrophage phagocytosis

d) Determine isotype

e) Binding C1q

Answer: B

55)What is the major site tor naïve B and T cells activation:

Select one:

a) Spleen

b) Bone marrow

c) Lungs

d) Thymus

e) Kidney

Answer: A

56)All of the following are true of antigen EXCEPT which one of the following?

Select one:

a) They contain epitopes.

b) They will react with antibodies.

c) They contain antigenic determinants.

d) They can elicit an immune response

e) They contain paratopes

Answer: E

57)Mature B cell can be detected by the presence of

Select one:

a) CD20

b) CD32

c) CD21

d) CD28

e) CD40

Answer: A

58)A Fab fragment:

Select one:

a) Is produced by pepsin treatment.

b) Is produced by separation of heavy and light chains.

c) Binds antigen.

d) Lacks light chains.

e) Has no interchain disulfide bonds

Answer: C

59) Which of the following gene is not the part of MHC genes

Select one:

a) DP gene

b) DR gene

c) complement gene

d) TNF gene

e) IFN genes

Answer: E

60)Neutrophil nitric oxide is:

Select one:

a) Anti-toxins enzyme

b) Oxygen-dependent.

c) Enzymes.

d) Glycolipids.

e) Peptide antibiotic

Answer: B

61) The effect of AB is determined by?

A) constant region of Heavy chain

b) variable region of light chain

c) constant region of light chain

d) variable region of heavy chain

Answer: A

62) Somatic hyper mutation is due to:

a) Change in the variable region of heavy chain, constant unchanged

b) Constant region of heavy chain changed , variable region is unchanged

c) Variable region of light chain is changed , constant is unchanged

d) Constant of light chain is changed , variable is unchanged

e) Both variable and constant regions are changed

Answer: A

63) one of the following Ab plays an inhibitory role on B cells :

a) IGM

b) IGA

c) IGE

d) IGG

e) IGD

Answer: D

64) One of the following Ab is an Anti-CD20 :-

a) IGM

b) IGA

c) IGE

d) IGD

e) IGG

Answer: E

65) one of the followings binds MHC at the same time with T cell?

a) CD40

b) CD28

c) CTLA-4

d) IG- alpha

e) Cd2

Answer: B

66): Complements that act as anaphylatoxins

a) c3a and c5a

b) c3b and c4b

c) c3d and c3b

d) c4b and c2b

e) c5-8

Answer: A

67): The disease that result from mutation in CD40L gene is

a)Acquired immune deficiency syndrome

b) X-related Hyper-IgM syndrome

c) Hyper-IgM syndrome

d) paroxysmal nocturnal haemoglobinuria

e) hereditary angioedema

Answer: B

68): B cells in the periphery that haven't exposed to antigens before called:

a) pre-B cells

b) mature

c) immature

d) naïve

e) pro-B cells

Answer: D

69) :The MHC II & Li variant chain is synthesized in

a) endoplasmic reticulum

b) cytoplasm

c) Golgi apparatus

d) endosome

Answer: A

70) One of these false regarding neutrophils

a)express receptor for IGA

b) play important role in inflammation

c) express receptor for IGM

d) receptor more than macrophages

Answer: C

(71) One of the following is not true regarding CD2

a) It's expressed in APC

b) It is expressed on mature T cell

Answer: A

(72) Antibody structure?

a) heavy and 2 light chains

b) Heavy, one light chain

c) one light, one heavy

Answer: A

(73): Factor H and decay accelerating factor (DAC) function is:

a) removes Bb from the alternative pathway C3 convertase

b) inhibit association of C9 with C5b-8

c) inactivesC3b

d) shutting down the ptoteolytic activity of C1s and C1r

Answer: A

(74):Common myeloid progenitor is the precursor of all of the following cells EXCEPT:

a) Megakaryocyte

b) Erthrocyte

c) neutrophils

d) natural killer cells

e) monocytes

Answer: D

(75): All of the following statements regarding red pulp of spleen are false (lab) EXCEPT :

a) It is the inner pulp of spleen

b) consists of peri-arteriolar lymphoid sheath

c) presence of afferent lymphatic vessels

d) it is the place where aged RBC is destroyed

Answer: D

(76) : Which of the following sentences best describe humanized antibodies

a) It has the variable part of a mouse and the constant part of human antibody

b) It has the hypervariable part of a mouse and the other parts of human antibody

c) It has the constant part of a mouse and the variable part of human antibody

d) It has the variable part of a human and the constant part of human antibody

e) It has all the parts of a mouse and the hypervariable of human antibody

Answer: B

(77): Papain enzyme digest the antibody producing

a.) 2 fab and 1 Fc

b.)1 fab and 2 Fc

c.) F(ab)2 and smaller Fc

d.) F(ab)2 and larger Fc

e.) F(ab)2 and 2Fc

Answer: A

(78): The number of antigens that can bind IgM antibody is

a) 2

b) 4

c) 6

d) 8

d) 10

Answer: E

(79) : which of the following receptors is not considered a PRR

a) Scavenger

b) C3b

c) MBL

d) Fc receptor

e) Toll like receptor

Answer: C

(80): which of the receptors have no role in phagocytosis?

a) CR1

b) CR2

c) CR3

d) CR4

e) Complementary receptor 1

Answer: B

(81) G-CSF stimulate the differentiation of

a) Neutrophils

b) Monocyte/macrophages

c) Basophils

d) DC

Answer: A

(82): The percent of T cells that survive selection process is

a) 60%

b) 75%

c) 30%

d) 5%

e) 25%

Answer: D

(83): least abundant immunoglobulin in the adult serum

A) IgM

B) IgG

C) IgA

D) IgD

E) IgE

Answer: E

(84): The effector activity of antibodies is related to

a) The variable domain of the light chain of the antibody

b) The constant domain of the light chain of the antibody

c) The variable domain of the heavy chain of the antibody

d) The constant domain of the heavy chain of the antibody

e) The variable domain of the J chain of the antibody

Answer: D

(85): What is the immunoglobulin that act as anti-CD20 antibody kill B cell–derived tumor cells by NK cells by ADCC

a) IgM
b) b) IgG
c) c) IgA
d) IgD
e)) IgE

Answer: B

(86): What do we call the B cell when it present Heavy chain

a) Plasma cell

b) Mature B cell

c) Pro B cell

d) Pre B cell

e) Naïve B cell

Answer: D

(87):MHC2 in ER can not bind endogenous AG because of the Li variant that - - - - the binding site, while moving to endosome part this variant will be - -- :

a) activate.... degraded

b) block... activated

c) activate.. block

d) block.... degraded

Answer: D

(88): MHC2 contain all of the following EXCEPT :

a) Alpha 1

b) .Alpha2

c) Alpha 3

d) Beta1

e) Beta2

Answer: C

(89) :MHC1 contain all of the following EXCEPT :

a) Alpha 1

b) .Alpha2

c) Alpha 3

d) Beta1

e) Beta2

Answer: D

(90) : EQUIVELANT TO hinge region in IgM : -

Answer: CH2

91) antiviral activity can be mediated by all except Select one:

a) DC

b) NK

c) Antibody

d) Gamma delta T cells

e) MHC1 presentation to CD4 T cells

Answer: E

92) In NK all are true except Select one:

a) Their killing inhibition receptors sense the presence of MHC1

b) differentiated from the common lymphoid progenitor

c) express fas

d) express fasL

e) kill activated T cells

Answer: C

93) Extensive allelic polymorphism is found in MHC. Select one

a) class 2 DRbeta

b) class 2 Dralpha.

c) beta2-microglobulin.

d) Class IA loci

e) Class 1 B loci

Answer E

94)The initial complement component that is bound by complement-foing antibodies is Select one

a) C1q

b) C1s

c) C3b

d) C5a

e) C9

Answer: A

95) The classical and alternative pathways meet at complement component Select one

a) C4

b) C4b

C) FactorD .

d) C5

e) C3

Answer: E

96) The B-cell receptor antigen recognition signal is transduced by Ig alphia and beta and maximtzed by Select one

a) The BCR heavy chain.

b) The BCR light chain

c) CD20.

d) CR2 CD19 and R021

Answer: D

97)The major role of the complement system is to work in conjunction with Select one

a) antibodies to lyse cells via the CB and C9 components

b) the major histocompatibility compiex for cell recognition

c) antibodies to opsonize cells

d) the T-cell receptor for production of lymphokines

e) antibodies to lyse celis via the perforin moecules

Answer: A

98) A member of the immunoglobulin gene superfamily is all except Select one:

a) Fc receptor 1 for IgE

b) Poly-lg receptor

c) Fc receptor 2 for IgE

d) Fc receptor 1 for IgG

e) Fc receptor 1 for IgA

Answer: C

99)Which of the following statement is true for Fab fragment ? Select one

a) Formed by proteolysis of antibody by pepsin

b) Constituted by heavy chains only

c) Contain complementarity determining regions (CDR)

d) Activates complement

e) Bind antibody receptor

Answer: C

100) gamma delta T-cells All are true except Select one

a) CD3 positive cells

b) act against mycobacterium

c) present mainly in mucosal epithelium

d) increase autoimmunity caused be T cells

e) have gamma and deita TCR

Answer: D

101) IGM, all are true except Select one

a) Is the first antibody formed in immune system

b) Is the largest antibody

c) its receptor functions were not defined

d) have allotype GM

e) has no hinge region

Answer: D

102)MHC class II molecules are made up of two chains called…… whose function is to bind peptides and presenit them to…… T cells Select one

a) alptia and beta, CD4

b) alpha and beta2-microglobulin CDA

c) alpha and beta: CDB

d) alpha and beta2-mcroglobulin CD5

e) alpha and beta gamma delta cell

Answer: A

103) Somatic hypermutation is Select one:

a) Commonty found in both ig and T-cell receptor genes

b) Restricted to the constant region.

c) Restricted to the beta chain

d) Found only in Ig heavy chains

e) Found only in Ig variable regions

Answer: E

104) T and B cells enter the peripheral lymph nodes from circulation, all are true except Select one

a) through afferent lymptiatic vessel

b) Because they are attracted by chemotactic factors

c) through high endothelial venules (HEV)

d) They are activated inside the peripheral lymph node

e) They should be nalve to enter the LN

Answer: A

105) The presence of IgM indicates Select one

a) Second exposure to same antigen

b) An acute infection

c) An allergic reaction is present

d) A reaction between mother and foetus across the placenta

e) Activation of memory cells

Answer:B

106)Regarding Basophils, which of the following is true

: Select one

a) Stain with acid dyes.

b) Contain a major basic protein.

c) Help in phagocytosis

d) have IGE receptors

e) secret IGE

Answer: D

107) During B cell development, at what stage is membrane bound IgM found? Select one

a) Pro-B cell stage

b) Early pre-B cell stage

c) Late pre-B cell stage

d) Immature cell stage

e) Stem cell

Answer: D

108) Viral proteins that are formed inside of an infected cell associate with cell and are presented at the surface of the effected Select one:

a) Cytokines

b) MHC class I 'molecules

c) MHC class Il molecules

d) Antibody molecules

e) complement

Answer: B

109)The T cell Receptor complex includes Select one

a) TCR+ CD4

b) TCR+ CD3

c) TCR

d) TCR+ CD8

e) TCR- CD3 and zeta chains

Answer: E

110) The difference between macrophage and neutrophil Select one

a) Only neutrophil is a phagocyte

b) Only neutrophil does intracellular killing by azurophil lysosomal granules

c) Only neutrophit expresses receptor for IGG

d) Only macrophage does the respiratory burst

e) Only neutrophil present in tisue

Answer: B

111) Blocking the binding sites of microbial toxins and viruses so un able to bind cellular receptors is mediated by and is caled Select one:

a) Antibody-Agglutination

b) Antibody- Precipitation

c) Antibody- Neutralization

d) Antibody- ADCC

e) Antibody- opsonization

Answer: C

112)positive B cell selection occurs when a B-lymphocyte encounters Select one

a) self MHC

b) self MHC-Self Antigen

c) foreign antigen

d) Complement

e) Chemotactic factors

Answer: A

113) Natural killers cells are found in all but rare in one:

a) Blood

b) Spleen

c)Lymph nodes

d) Red bone marrow

e) bone marrow

Answer: C

114) When a resting naïve T-cell engages its specific MHC/peptide complex displayed on the surface of a DC It firstly Select one

a) Undergoes blast cell formation

b) Produces IL-2

c) undergoes cell death

d) differentiates into effector cells

e) Secretes IL-1

Answer: A

115) The MHC expression is decreased by cell because of infection of Select one:

a) virus

b) worm

c) bacteria

d) auto immunity

e) aging

Answer: A

116)Natural killes cells are found in all but rare in Select one

a) Blood Spleen

b) Lympn nodes

d) Red bone marrow

e) bone marrow

Answer: B

117) When a resting nalve T-cell engages its specific MHC/peptide complex displayed on the surface of a DC It frstly Select one

a) Undergoes blast cell formation

b) Produces IL-2

c) undergoes cell death

d) differentiates into effector cells

e) Secretes IL-1

Answer: A

118) Which of the following is done by easinophils Select one

a) Lysis of some viraly infected cells

b) Killing warms by expressing FC epsilon receptors

c) stain biue with basic dve meithylene blue

d) Kiling wams by expressing FC gamma receptors

e) Kiling warms by secreting IGG

Answer: B

119) In the respiratory burst, ……are released, which have a potent cell-killing ability Select one

a) free radicals

b) platelet-derived growth factors

c) histamines

d) enzymes

e) major basic protein

Answer: A

120) Which of the following is the ligand for the B cell coreceptor Select one

a) c3

b) C3b

c) IL-2

d) C3d

e) CR2

Answer: D

121)The phenomenon whereby, following successful Ig gene rearrangement, further rearrangement is suppressed s calet Select one

a) Allelic exclusion

b) Class switching

C) Productive rearrangement

D) Clonal selection

E) gene mutation

Answer: A

122) A complement component which is strongly chemotactic for neutrophils is Select one

a) C9

b) C5a

c) C3

d) C3b

e) C5

Answer: B

123) Which of the following statements does not apply to igG?. Select one

A) Appears earty in the primary immune response

B) Neutralizes bacterial toxins

C) Can fix complement

D) Crosses the human placenta

E) Opsonons bacteria

Answer: A

124) A primary role for antibodies in resistance to bacterial infection is all except Select one:

A) Antibody dependent cell mediated cytotoxicity

B) Lysis of infected host cells

C) Activation of the alternative complement pathway

D) Opsonisation for increased uptake by phagocytic cells

E) neutralize the bacterial toxins

Answer: C

125) Pre-B and T cell proliferate in response to Select one:

a) Cytokine IL-7

b) Signal transduction from formed Pre-BCR and pre-TCR

c) Antigen presentation

d) Antibody exposure

e) Mature thymic DC

Answer: A

126) Which of the following gene clusters do not contribute to liatt chain Select one

a) Variable Light chain

B) Constant Light

C) TCR beta chain

d) Diversity gene

e) Joining

Answer: C

127) Which of the following is not involved in first line defense? Select one of

a) Mucus membranes

b) Saliva

C) Tears

d) Antibodies

e) Epidermis

Answer: D

128)Binding of this PRR to a macrophage help in cytokine production Select one

a) Toll like receptors

b) Complement receptors

c) FC receptors

d) Scavenger receptor

e) Opsonin receptors

Answer: A

129) One principal function of the Class I and Class II major histocompatibility complex proteins is to Select one:

A) transduce the signal to the T-cell interior following antigen binding

b) mediate immunoglobulin class switching

c) present antigen for recognition by the T-cell antigen receptor

d)stimulate production of interleukins

e) bind complement C3d,

Answer: C

130) all are true except Select one

a) Help B cells during the processes of selection in affinity maturation

b) product of the classical pathway

c) a product of lectin complement pathways •

d) CRI is its receptor on B cells

e) Its receptor on B cells help in entering epstein barr virus

Answer:

131) Which of the following immune system components would firstly initiate inflammation? Select one

A) macrophages

B) Tampnocyte

C) B lymphocyte

D) macropmages on mast cells

E) antibodies

Answer: D

132) Which of the following substances will not stimulate an immune response unless they are bound to a larger molecule? Select one:

A) Antigen

b) Virus

C) Hapten

d) Miligen

e) Antibody

Answer: C

133)Predominant immunoglobulin in extenal secretions such tears, mucous is Select one

a) igE

b) IgM

b)IgA

c) igG

d) IgD

answer: C

134) The germinal center is an important site of Select one:

a) Hematopoiesis

b) B-cell maturation

c) B-cell receptor editing

d) Myeloid cell differentiation.

e) antibody V gene rearrangement

Answer: E

135) Complement proteins work by…….. Select one:

a) neutralization of antigens

b) creating an impermeable barrier

c) phagocytosis of target cells

d) forming pores in the membranes of target cells

e) producing

Answer: D

136) B cells mature in the……..while T cells mature in the Select one

a) Thymus/bone marrow

b) Spleen/bone marrow

c) Bone marrow / Thymus

d) Liver/Kidneys

e) Bone marrow spleen

Answer : C

137)Which of the following structures is constituted by J-cnain binding site Select one

a) both lighf and heavy chains

b) lignt chains

c) Antigen binding site

d)Heavy chains

e)Complement tinding site

Answer: D

138) T-cell antigen receptors are distinguished from antibodies by which of the following Select one

a) T-Cell receptors are glycosylated

b)T-cell receptors must interact with antigen uniquely presented by other cells but not with free antigen

c) T-Cell receptors bind various cytokines

d) T-Cell receptors bind complement to lyse cells

e) T-cell receptors are mediators of allergic reactions

Answer: B

139)One function of the complements is to Select one

a) inactivate pertorins 5

b) mediate tne release of histamine

c) neuntraize bacteria

d) Phagocytes antigens

Answer: B

140) The CD8 cell surface protein of T cells interact with of MHC class I molecules Select one:

a) alpha-1 subunit

b) alpha-2 subunit

c) alpha-3 subunit

d) beta2- macroglobulin

e) beta 1 subunit

Answer: C

141)Human monocional antibodies can be obtained Select one

a) Using Epstein-Barr virus immortalization of T-cells

b) Easily from human hybndomas selected with HT medium

c) using transgenic xenomouse strains

d) By a single point mutation of a mouse monocional antibody

e) Only by fustrng specific mouse B-celis with mouse myeloma cels

Answer: E

142) The subclass of IgG that has lowest serum concentration is Select one:

a) IgG1

b) IgG2

c) IgG3

d) IgG4

e) igG5

Answer: D

143) One function of the complements is to Select one:

a) inactivate perforins

b) mediate the release of histamine

c) neuntralize bacteria d phagocytize antigens

e) cross link allergens

Answer: B

144)Peyers Patches are specialized tymphoid aggregates found in the Select one (lab)

a) Brain

b) Lung

c) Spleen

d) Gut

e) skin

Answer: D

145) The class of an immunoglobulin Select one:

a) is determined by Class I and Class II major histocompatibility complex proteins

b) is determined by the carbohydrate attached to the light chain is

c) determined by the variable part

d) is determined by the heavy chain type

e) Is determined by the J-chain

Answer: D

146) Natural antibodies: Select one:

a) Are mostly IgG.

b) Are mostly high affinity IGM.

c) Are produced spontaneously by CD5+ B-cells.

d) Are acquired by transplacental passage from the mother

e) Do not arise in thymectomized mice

Answer: C

147) Which of the following is the first step in the specific immune response to antigen? Select one

a) Memory cell formation

b) Secretion of antibody molecules

c) Antigen presentation to T helper cell

d) Secretion of cytokines by T helper cell

e) plasma cell formation

Answer: C

148) This immune cell is able to respond quickly after any second encounter with the same antigen Select one

a) basophil

b) helper T cell

c) memory cell

d) antigen-presenting cell

e) plasma cell

Answer: C

149)Expression of MHC genes is Select one

a) Codominant.

b) Dominant for maternal genes

c) Dominant for paternal genes

d) Dependent on thymic selection

e) Totally dependent on the T.cells

Answer: A

150) Which nonspecific defense cells specialize in attacking cancer cells and virus-infected cells? Select one

a) macrophages

b) plasma cells

c) natural killer cells

d) helper T lymphocytes

e) basophils

Answer: C

151) The T-cell ligand CD28 bind which of the following on a B cell: Select one:

a) B7

b) CD2

c) CD40

d) CD40L

e) LFA-3

Answer: A

"وهل يبلغ المرء نعيم الرِّضا إلا بعد وخزات الآلام، أو يعرف لذَّة المعيَّة حتى يتجرَّع مرارة التّيه، أو يذوق برد المُناجاة إلا بعد حرّ المُعاناة، أو يستشعر قرار الآخرة إلا بفيح مصائب الدُّنيا؛ إنها العثار التي يُقدِّرها الله في دُروبنا لتدلّنا إليه، وتردّنا إليه الردّ الجميل!

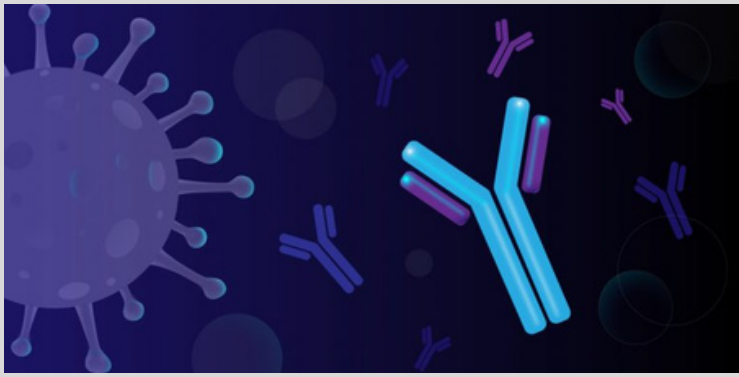
والسَّاعة التي تخنقُك فيها العبرة، وتسيلُ منك الدَّمعة، وتُحاول البحث عمَّن تشكو إليه، هي أعظم ساعة تبُثُّ فيها ما أهمَّك إلى الله؛ فهو سُبحانه أقربُ إليك ممَّن تبحث عنه، وأرحمُ بك ممَّن ترجو شفقته، وأكرمُ لك ممَّن ترجو عونه؛ قريبٌ رحيمٌ كريم"!

Athar

Immunology Mid

Done By:
Raneem Bashtawi

Designed By :
Raneem Dmour



1.Which of the following accurately describes a difference between B cells and plasma cells?

A) Plasma cells express CD20, while B cells do not.
B) Plasma cells are the primary cells responsible for antibody production, while B cells do not produce antibodies.
C) B cells have a high level of immunoglobulin production, whereas plasma cells do not.
D) B cells are short-lived and primarily function in antibody production, while plasma cells are long-lived and produce antibodies.

Answer:b

2.Which of the following antibodies does not have a hinge region?

A) IgG
B) IgD
C) IgM + IgE
D) IgA
E) IgE only

answer: c

3.Which of the following is not an opsinon?

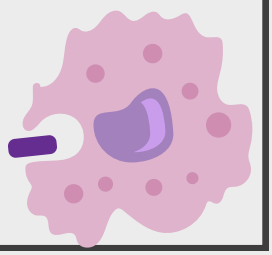
A) C2a
B) C5b
C) C3b
D) C2b
E) c4b

Answer: a

4.Which one causes More complement activation:

A)Igg1
B)IgA
C)Igg3
D)IgM

Answer: d



5.Which of the following genes don't contribute to light chain?

A) varible
B) joining
C) diversity

Answer:c

6.MHC2 in ER can not bind endogenous AG because of the Li variant that blocks the binding site, while moving to endosome part this variant will be degraded:

a) activate.... degraded
b) block... activated
c) activate... block
d) block.... degraded

Answer: d

7.Which of the following gene clusters do not contribute to light chain?

A) Variable Light chain
B) Constant Light
C) TCR beta chain
D) Diversity gene
E) Joining

Answer:c

8.Negative selection of T cells results in cells that:

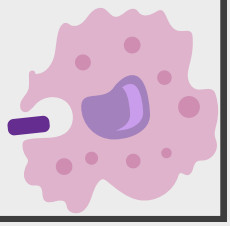
A) Can bind to foreign antigen
B) Can bind to self MHC
C) Cannot bind to self MHC
D) Can bind to self antigen
E) Cannot bind to self antigen

Answer: e

9.What's the similarity between IgG and IgE?

A) Structure
b) Function
c) Valency
d) Location

Answer:c



10.What's a process that looks like negative selection in T cells but happens in B cells?

a) Clonal expansion

b) Isotype switching

c) Receptor editing

d) Positive selection

Answer:c

11.Which one of these complement proteins causes chemotaxis?

a) C5b

b) C7

c) C3a

d) C9

Answer:c

12.What is correct about C3b?

a) Causes cell lysis

B)Opsonization of antigen

C) triggers immunization

d) Induces chemotaxis

Answer:b

13.All of these signs occur in inflammation except:

A) heat

B) pain

C)redness

D) tumor

E) cyanosis

Answer: e

14.Where does the double positive T cell transition to a single positive T cell?

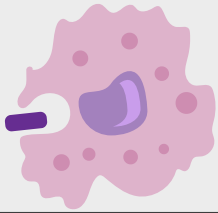
a) medulla

b) Lymph node

c) bone narrow

d) Cortex

Answer: a



15.Which part connects CD4 to MHC class II?

A) Beta-1 chain

B) Beta-2 chain

C) Alpha-1 chain

D) Alpha-2 chain

Answer:b

16.What helps IgA go to the place where secretion occurs?

A) Fc receptor

B) Secretory component

C) Poly-Ig receptor

D) J chain

Answer:c

17.One function of complements is to:

A) Enhance phagocytosis

B) Activate T cells

C) Release histamine

D) Promote apoptosis

Answer:c

18.(.....) of B cell is replacement to negative selection of T cell:

A) negative selection

B) positive selection

C) receptor editing

Answer:c

19.Which one of these options creates C5 convertase?

A) C3bBb

B) C4b2a

C) C2b4b3b

D) C4b2a3b

answer:

20. All of the following are expressed on B cells except:

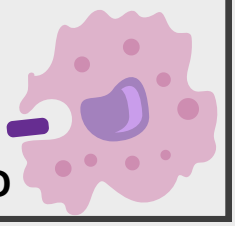
A) CD19

B) CD20

C) CD21

D) CD40L

answer: D



21.Which antibody doesn't transfer through the placenta?

A) IgG1
B) IgG2
C) IgG3
D) IgG4

Answer:b

22.what makes chemotaxis for neutrophils and macrophages?

A) Th1 + CD8
B) Th2 + CD4
C) Th17 + CD4
D) Treg + CD4

Answer:c

23.What is responsible for the separation of Bb:

A) Factor h
B) Factor I
C) Dac

Answer:b

24.What type of cell contains CD45RO+?

A) Memory T cell
B) plasma cell

Answer: a

25.What causes a negative signal to B cell activation ?

A) Cd22
B) Cr2
C) Cd59

Answer: a

26.What transfers naive cells to secondary lymph nodes?

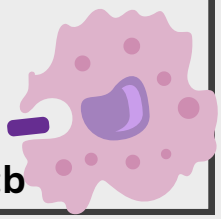
A) Lymphatic vessels
B) Blood vessels
C) Venules from HEV
D) Efferent lymphatics

Answer:c

27.In what phase does the B cell have a heavy chain surrogate with a light chain?

A) Pro-B cell phase
B) Pre-B cell phase
C) Immature B cell phase
D) Mature B cell phase

Answer:b



Immune Archive

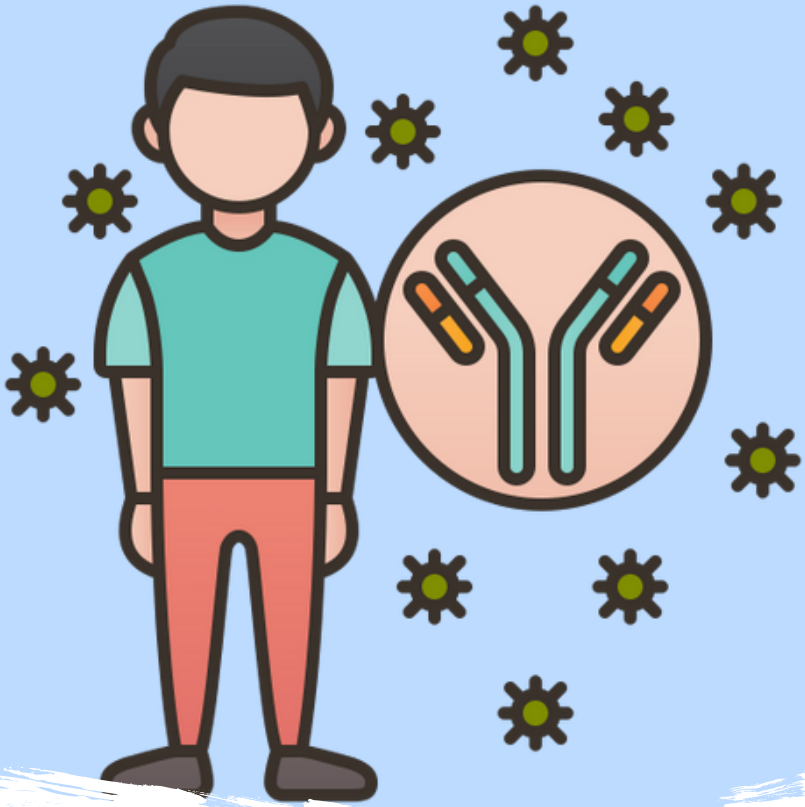
Mid-زوج

Done by:

Mais Basil

Corrected by:

Emran Younis



1) EBV invade B cell by binding to :

A. CR1

B. CR2

C. CD4

D. MHC1

Answer: B

2)Ig that does not cross placenta:

A. IgG1

B. IgG2

C. IgG3

D. IgG4

E. IgG5

Answer: B

3)The cause of poor opsonization of IgM

A. Low affinity of IgM

B. Low avidity of IgM

C. No receptor on monocytes

D. IgM can't stimulate immune response

E. Low concentration of IgM

Answer:c

4) TAP ___ transverse of peptide through endoplamic reticulum bilayer to bind____.

A. Permits, MHC1

B. Permits, MHC2

C. Prevents, MHC1

D. Prevents, MHC2

E. Prevents, MHC3

Answer:A

5) Germinal reactions include all of the following except:

A. Somatic hypermutation

B. Affinity maturation

C. Low affinity antibodies

D. Memory formation

E. Plasma cells formation

Answer:C

6) The principal function of complements:

A. Mediates histamine release

B. Bind with antibody to lyse cells

Answer:B

7)Monoclonal antibodies are secreted by:

A. Hybridoma

B. Myeloma

C. Lymphocytes

D. Plasma cells

Answer:A

8) After MHC2 reaches the endosome, clip is released by binding of MHC2 with___, in order to bind peptides instead of clip.

A. HLA-DR

B. HLA-DM

C. HLA- DQ

D. HLA-B

E. TNF-B

Answer:B

9) Negative selection of T cells results in cells that:

A. Can bind to foreign antigen

B. Can bind to self MHC

C. Can not bind to self MHC

D. Can bind to self antigen

E. Can not bind to self antigen

Answer:E

10) EBV infects B cells by binding to:

A. BCR-IgM

B. BCR-IgD

C. CD2

D. CR2

E. TCR

Answer:D

11)The macrophage need a complement (or opsoizing)with IgM because:

A. The IgM has low affinity with macrophage

B. The IgM has low concentration

C. The IgM can't stimulate the immune response

D. The macrophage doesn't have receptor for IgM

Answer:D

وكلُّ متاعبِ الإنسان أجورٌ ليس يعلمها.

12) Negative selection is test used to ensure the T cell :

A. Can bind with self MHC

B. Can't bind self MHC

C. Can bind to antigen

D. Can bind to antibody

Answer:B

13)True regarding fab fragment 2fab

A. Generation from papain enzyme

B. Bind with antigen receptor

Answer:A

14) The alpha chain in T cell lacks of :

A. Variable region

B. Diversity

C. Joining

D. Kappa

E. Lambda

Answer:A

15) Which of the following foreign body characteristics lead to immune response?

A. high biodegradable

B. Hapten

C. Low molecular weight

D. Low biodegradable

E. Additive food

Answer:A

16) All of the following occur in the germinal center except:

A. Isotype switching

B. Affinity maturation

C. Low Affinity maturation

D. Heavy class switching

E. Memory cell formation

Answer:C

17) The IgM receptor need to complement to do opsinisation because

A. Low affinity of IgM

B. Low avidity of IgM

C. Dont have receptor on monocytes

D. Low valency

Answer:D

18) All the following are activated receptor exept:

A. FcY2B

B. FcYR1

Answer:A

19) All the following opsinon exept?

A. C3a

B. C3b

C. C5b

Answer:A

20) All the following in the b cells except ?

A. CD2

B. CD22

C. CD40

D. CD40LN

Answer:D

21) The receptor that transport IgA into mucosal:

A. Poly Ig receptor

22) The immunoglobulin that cant cross to placentae:

A. IgG1

B. IgG2

C. IgG3

D. IgG4

Answer:B

23) The least concentration IgG subclass in blood

A. IgG1

B. IgG2

C. IgG3

D. IgG4

E. IgG5

Answer:D

24) The right order of immunoglobulin related to its concentration

A. IgG. IgA. IgM. IgD. IgE

B. IgG. IgD. IgM. IgE. IgA

Answer:A

25) The antibodies that lack from hinge region :

A. IgG

B. IgD

C. IgA

D. IgM&IgE

Answer:D

26) IgH protein formed on:

A. Mature b cells

B. Immature b cells

C. Pre b cell

D. Pro b cells

E. Stem cell

Answer:C

27) Complement activation done by :

A. IgM

B. IgG

C. IgD

D. IgM+IgG

Answer:D

28) All have stimulated effect except:

A. FcyR1

B. FcyR3A

C. FcyR2B

D. FcyR2A

Answer:C

29) Which one has the highest affinity:

A. FcyR3b

B. FcyR2A

C. FcyR1

D. FcyR2b

Answer:C

30) All are include intra epithelium cells except:

A. Sense carbohydrates

B. Have a CD3+

C. Need a MHC1 to presenting the antigen

D. Part of innate immune

Answer:C

31) The IgH found on :

A. Immature B cell

B. Pre-B cell

C. Pro-B cell

D. CD8

Answer:B

"وَهُوَ مَعَكُمْ أَيْنَ مَا كُنتُمْ ۚ وَاللَّهُ بِمَا تَعْمَلُونَ بَصِيرٌ"

32) The subclass of IgG that has lowest serum concentration is select one :

A. IgG1
B. IgG2
C. IgG3
D. IgG4
E. IgG5

Answer:D

33) The Fc receptor that IgA bind's with:

A. Poly Ig receptor

34) What is type of endogenous protein that expressed on MHC1 surface :

Ans: Proteasome antigen

35) What is the stimulation of eosinophils :

A. CD4-Th1
B. CD4-Th2
C. CD4-Th17
D. CD8-Th1
E. CD8-Th2

Answer:C

36) Li variant ..... Peptide binding site and when fused ..... Li variant and bind peptide ?

Ans: Block / degraded

37) Where MHC1 binded on CD4 ?

A. Aplha1
B. Alpha2
C. Beta1
D. Beta2
E. Alpha3

Answer:E

38) Single positive T cell is transform to ..... in ..... :

A. Double positive, cortex
B. Double positive, medulla
C. Double negative, cortex
E. Double negative, medulla

Answer:B

اللهم البشائر لقلوبٍ تنتظر.✨

39) All of the following is true regarding of TH1 exept:

A. activation of neutrophil

B. activation of NK cells direct through INF gamma

C. activate CD8 T cells

D. activate B cell to secret IgE

Answer:D

40) High affinity fc ?

A. Fc¥R1

B. Fc¥R2A

C. Fc¥R3A

Answer:A

41) TAP ..... Enter antigen to ER and bind to.....:

Ans: permit,MHC1

42) MHC1 ?

A. Protosome antigen

B. Phagolysosome antigen

Answer:A

43) What types of Ab that make complement activation ?

A. Igm only

B. IgG only

C. IgE

D. IgD

E. Igm and IgG

Answer:E

44) Igg with lowest concentration;

A. Igg1

B. Igg5

C. Igg4

Answer:C

45) Chemotaxis of neutrophils and macrophages is function of?

A. Th1

B. TH17

C. CD8 T-cells

Answer:B

46) Why does the macrophage not bind to the IgM antibody?

A. IgM are bulk in size

B. IgM are insoluble

C. IgM form polymers

D. Macrophages do not have receptors to IgM

E. Actually, macrophages can bind to IgM

Answer:D

47) Constant region bind Cd4 in MHC II is :

A. Alpha 1

B. Alpha 2

C. Beta 1

D. Beta 2

Answer:D

48) Negative feedback of B cell activation:

A. CD5

B. CD11

C. CD20

D. CD22

E. CD86

Answer:D

49) CD3 recognize any calls?

A. CD4 and CD8 T cell

B. B cell

C. CD4 t cell

D. CD8 T cell

E. CD8 and CD4 t cell

Answer:A

50) .....of thymocytes is necessary to produce a T-cell capable of recognize self MHC molecules. Select one:

A. Positive selection

B. Negative selection

C. Apoptosis

D. Receptor editing

E. Isotype switching

Answer:A

لن يجلبَ السعيُ شيئًا لا نصيبَ بهِ
أو يمنعُ الحرصُ ما قد قدرَ اللهُ

51)All are functions of Th1. Except:

A. Activate CD8

B. Activate B cell to secret IgE

C. Active NK to do direct killing of infected cell(IFN gamma)

D. Activate neutrophils

E. Aid in cell mediated immunity

Answer:B

52) Which of the following is not true regarding Fc region of antibodies?

A. Constant region

B. Binds macrophages receptors

C. Binding to Ag

Answer:C

53) Which of the following gene clusters do not contribute to light chain?

A. Variable light chain

B. Constant light

C. TCR beta chain

D. Diversity gene

E. Joining

Answer:D

ورغمَ كُلِّ جُهدِ بُذِل وآخر يودُّ أن يُبذل فلا وصولَ لنا دونَ توفيقِ الله، ولا رجاء لنا سوى أن يحفّ التوفيقُ طريقنا ويُتوَّج نهايةً بالرِّضا التَّام.. هذه الليالي التي تسبقُ الامتحانات، والتي يملأها كلَّ شعورٍ متناقض، هي التي تُعرِّفنا على قوّتنا، وهي التي تُوقظنا من متاهتنا....

ونعودُ الآن لنقف بعد ألف سقوط، والأملُ يحتضنُ قلوبنا مُعلنًا استلامهُ للطريق، فنمضي سعيًا دونَ انتظارِ الشغف، مُقبلون دونَ النَّظرِ إلى خلف..🤍

لُجين الشروف