

Program: Biotechnology Engineering
Curriculum Scheme: Rev2016
Examination: Second Year Semester IV

Course Code: BTC405 and Course Name: Immunology and Immunotechnology
Time: 1 hour

Max. Marks: 50

For the students:- All the Questions are compulsory and carry equal marks .

Q1.	The ability of an organism to resist infections by the pathogens is called_____
Option A:	Infection
Option B:	Hypersensitivity
Option C:	Immunity
Option D:	Allergy
Q2.	Which of the following is NOT the characteristics of a good antigen?
Option A:	Large in size
Option B:	Foreignness
Option C:	Highly complex
Option D:	Reproduce only by binary fission
Q3.	Name the macrophages which are associated central nervous system.
Option A:	Alveolar macrophages
Option B:	Kupffer cell
Option C:	Mesangial
Option D:	Microglial cells
Q4.	Which MHC molecule recognizes CD8 TC cells?
Option A:	MHC I
Option B:	MHC II
Option C:	MHC III
Option D:	HLA-C

Q5.	Name the heavy chain of immunoglobulin G.
Option A:	μ
Option B:	ϵ
Option C:	α
Option D:	γ
Q6.	Which of the following is responsible for B-cell activation?
Option A:	Infection
Option B:	Antibody
Option C:	Antigen
Option D:	Allergy
Q7.	Which of the following acts as a coreceptor for B-cell activation?
Option A:	CD28
Option B:	IL-2
Option C:	IgA
Option D:	CD19
Q8.	Which of following is true about prozone phenomenon?
Option A:	It is due to disproportionate antigen and antibody levels.
Option B:	There is no relation with antigen and antibody levels.
Option C:	It is due to proportionate antigen and antibody levels.
Option D:	It is due to equal antigen and antibody levels

Q9.	Hapten
Option A:	Produce humoral response
Option B:	Binds to carrier to produce its effects
Option C:	Is high molecular weight proteins
Option D:	Is the same as epitopes
Q10.	Name the drug which is used to isolate hybridoma cells from the media?
Option A:	Amphetamine
Option B:	Opium
Option C:	Aminopterin
Option D:	Cocaine
Q11.	Name the class of immunoglobulin which has a pentameric structure?
Option A:	IgE
Option B:	IgG
Option C:	IgA
Option D:	IgM
Q12.	Complement component C3 is cleaved by:
Option A:	C3b
Option B:	C3bBb
Option C:	Factor B
Option D:	Factor D

Q13.	Graves disease is a
Option A:	Type 1 hypersensitivity reaction
Option B:	Type 2 hypersensitivity reaction
Option C:	Type 3 hypersensitivity reaction
Option D:	Type 4 hypersensitivity reaction
Q14.	Hepatitis is an example of _____.
Option A:	Subunit vaccine
Option B:	Killer vaccine
Option C:	Toxoids
Option D:	Recombinant vaccine
Q15.	Which portion of an antibody provides antigen-binding sites?
Option A:	Light chain
Option B:	Constant region
Option C:	Heavy chain
Option D:	Variable region
Q16.	The ability of the immune system to recognize self antigens versus nonself antigen is an example of:
Option A:	Specific immunity
Option B:	Tolerance

Option C:	Cell mediated immunity
Option D:	Antigenic immunity
Q17.	The basic Ig unit is composed of:
Option A:	2 identical heavy and 2 identical light chains.
Option B:	2 identical heavy and 2 different light chains.
Option C:	2 different heavy and 2 identical light chains.
Option D:	2 different heavy and 2 different light chains.
Q18.	Which type of hypersensitivity cannot be transferred with serum antibody?:
Option A:	Type I.
Option B:	Type II.
Option C:	Type III.
Option D:	Type IV.
Q19.	Central tolerance refers to which of the following processes?
Option A:	Destruction of lymphocytes that are not specific for self-antigens
Option B:	Production of self-antigens that are specific for lymphocytes
Option C:	Destruction of self-antigens that are specific for lymphocytes
Option D:	Destruction of lymphocytes that are specific for self-antigens
Q20.	The widal test is a type of

Option A:	Precipitation reaction
Option B:	Agglutination reaction
Option C:	Complement fixation test
Option D:	Immunofluorescence
Q21.	Pattern recognition receptors (PRR) include:
Option A:	LPS.
Option B:	PAMPs.
Option C:	Lipoteichoic acid.
Option D:	Lectin-like molecules.
Q22.	IgA in seromucus secretions:
Option A:	Has no J-chain.
Option B:	Has no secretory piece.
Option C:	Is dimeric.
Option D:	Cannot bind to neutrophils.
Q23.	The mononuclear phagocyte system does not include:
Option A:	Endothelial cells.
Option B:	Monocytes.
Option C:	Kupffer cells.
Option D:	Kidney mesangial cells.

Q24.	Rhesus hemolytic disease of the newborn involves:
Option A:	IgE.
Option B:	Antibody to cell surfaces.
Option C:	Soluble immune complexes.
Option D:	Cytokine release from T-cells.
Q25.	In the developing fetus, prenatal hematopoiesis (the differentiation and development of immune cells) is not generally known to occur in which of the following organs?
Option A:	Liver
Option B:	Spleen
Option C:	Lymphnodes
Option D:	Appendix