PREVIEW QUESTION BANK

Module Name : cec24-bt05 Immunology -Basics-ENG
Exam Date : 18-May-2024 Batch : 09:00-12:00

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	14681001	Which group of antigens are presented by CD1 molecules? 1. Peptides 2. Lipids 3. Oligosaccharides 4. Oligonucleotides A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
2	14681002	The macrophages present in the liver are called ..... 1. Osteoclasts 2. Microglial cells 3. Kupffer cells 4. Oligodendrocytes A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
3	14681003	Given below are two statements: Statement (I): During B-cell maturation in the bone marrow, direct contact of the pro-B cell to the stromal cell is essential. Statement (II): The binding of cytokine IL7 to its receptor on pre-B cells is essential for B-cell maturation. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct.	2.0	0.00

		A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
4	14681004	Small regions on the antigen that are recognized by the antibody are called ..... 1. Isotopes 2. Paratopes 3. Epitopes 4. Idiotopes A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
5	14681005	Which cytokine plays a significant role during the proliferation of B-cells ? 1. Interleukin 2 2. Interleukin 4 3. Interleukin 7 4. Interleukin 9 A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
6	14681006		2.0	0.00

Cytokines that induce an anti-viral state are .....

A. Interferon α

B. Interleukin 2

C. Tumour necrosis factor β

D. Interferon β

1. (A), (B) and (D) only.
2. (A), (B) and (C) only.
3. (B) and (C) only
4. (A) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

7	14681007		2.0	0.00

Given below are two statements:

Statement (I): The Human Immunodeficiency Virus (HIV) can evade the immune response by constantly changing its antigens.

Statement (II): The Herpes simplex viruses can evade the immune response by inhibiting antigen presentation.

In light of the above statements, choose the *most appropriate* answer from the options given below.

1. Both Statement (I) and Statement (II) are true.
2. Both Statement (I) and Statement (II) are false.
3. Statement (I) is true but Statement (II) is false.
4. Statement (I) is false but Statement (II) is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

8	14681008		2.0	0.00

		Histamine is a potent mediator of inflammation that causes ..... (A). increased vascular permeability (B). smooth muscle contraction (C). extravasation of neutrophils (D). platelet aggregation Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A) and (B) only. 3. (A), (B), (C) and (D). 4. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
9	14681009	During cell adhesion, the integrin family of proteins interacts with ..... 1. mucin family 2. selectin family 3. immunoglobulin family 4. cytokine family A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
10	14681010		2.0	0.00

		The hallmarks of inflammation are ..... (A). swelling (B). pain (C). redness (D). heat Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
11	14681011	One of the common methods for HLA typing of potential donors and recipients is ..... 1. MTT assay 2. microcytotoxicity test 3. agglutination assay 4. radioimmunoassay A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
12	14681012	The number of antibodies used in indirect ELISA is ..... 1. one 2. two 3. three 4. four A1 : 1 A2 : 2	2.0	0.00

		A3 : 3 A4 : 4		
Objective Question				
13	14681013	Multiple sclerosis is characterised by ..... 1. numbness of limbs 2. chronic inflammation of joints 3. kidney dysfunction 4. inflammation of the liver A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
14	14681014	Given below are two statements: Statement (I): Type I hypersensitivity reaction is mediated by IgE. Statement (II): Type II hypersensitivity reaction is mediated by IgG. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
15	14681015	The alternative pathway of complement activation begins ..... 1. with formation of immune complex. 2. with cleavage of complement proteins C2. 3. with cleavage of complement proteins C4. 4. spontaneously.	2.0	0.00

		A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
16	14681016	The first complement split product to be inserted to form a membrane attack complex is ..... 1. C3b 2. C4b 3. C5b 4. C6b A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
17	14681017	C5 convertase in the classical pathway of complement activation is ..... 1. C4b2a3b 2. C3bBb3b 3. C4b2b3b 4. C4bBa3b A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
18	14681018	The TAP transporter is present on the membrane of ..... 1. mitochondria 2. lysosomes 3. endoplasmic reticulum 4. golgi apparatus A1 : 1	2.0	0.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
19	14681019	Characteristic features of primary immune response are ..... (A). long lag phase (B). IgM predominates (C). no memory cells are involved (D). long-lasting Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
20	14681020	VDDJ joining of D gene segments in δ-chain can be generated by ..... 1. P-nucleotide addition 2. somatic hypermutation 3. junctional flexibility 4. alternative joining A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
21	14681021		2.0	0.00

		During thymic selection, negative selection results in ..... 1. MHC restriction 2. self MHC intolerance 3. self tolerance 4. clonal selection A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
22	14681022	Viral nucleic acids can be detected by which of the following technique? 1. PCR 2. Spectrophotometer 3. Western blotting 4. ELISA A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
23	14681023	A state of unresponsiveness to antigenic stimulation is called ..... 1. tolerance 2. restriction 3. avidity 4. anergy A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
24	14681024		2.0	0.00

		Which co-receptor is used by the M-tropic strain of HIV? 1. CCR4 2. CCR5 3. CXCR4 4. CXCR5 A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
25	14681025	In Graves' disease, autoantibodies are produced against ..... 1. acetylcholine receptor 2. thyroid stimulating hormone receptor 3. thyroglobulin 4. thyroid peroxidase A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
26	14681026		2.0	0.00

Match **List-I** with **List-II**

List-I	**List-II**
Cell types	**Binds with**
(A). B cells	(I). peptide MHC II complex
(B). Mast cells	(II). peptide MHC I complex
(C). T_H cells	(III). free antigens
(D). T_C cells	(IV). IgE

Choose the **correct** answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (II), (B) - (I), (C) - (III), (D) - (IV)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

27 14681027 2.0 0.00

Some of the antibody-mediated effector functions are .....

(A). viral neutralization

(B). cell lysis

(C). T-cell activation

(D). complement activation

Choose the ***correct*** answer from the options given below:

1. (A), (B) and (D) only.
2. (B) and (C) only.
3. (A), (B), (C) and (D).
4. (A) and (D) only.

A1 : 1

A2 : 2

		A3 : 3 A4 : 4		
Objective Question				
28	14681028	Given below are two statements: Statement (I): A single B-cell can express different classes of immunoglobulin on their membrane. Statement (II): A single B-cell can express only one class of immunoglobulin on their membrane. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
29	14681029	T-cell receptors are present along with the ..... complex. 1. CD1 2. CD2 3. CD3 4. CD4 A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
30	14681030	The MHC class II proteins are expressed by ..... 1. erythrocytes 2. dendritic cells 3. hepatocytes 4. neurons	2.0	0.00

		A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
31	14681031	The major cytokine secreting cells are ..... (A). Macrophages (B). T_H cells (C). B cells (D). Fibroblast Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (A) and (B) only 4. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
32	14681032	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Swelling is one of the hallmarks of inflammation. Reason (R) : Swelling occurs due to increased vascular permeability. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both (A) and (R) are correct and (R) is the correct explanation of (A). 2. Both (A) and (R) are correct but (R) is NOT the correct explanation of (A). 3. (A) is correct but (R) is not correct. 4. (A) is not correct but (R) is correct. A1 : 1 A2 : 2 A3 : 3	2.0	0.00

		A4 : 4		
Objective Question				
33	14681033	During B- cell activation, the progression signal is through the interaction of ..... 1. antibody and antigen. 2. CD40 and CD40 ligand. 3. B7 family of proteins with CD28 molecule. 4. Interleukin 7 and its receptor. A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
34	14681034	Which cytokine is important for the proliferation of T cells? 1. Interleukin 2 2. Interleukin 4 3. Interleukin 7 4. Interleukin 9 A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
35	14681035	Components of the innate immunity includes (A). physical barriers like skin (B). phagocytic cells (C). B-cells (D). complement proteins Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only.	2.0	0.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

36 14681036 2.0 0.00

Match **List-I** with **List-II**

List-I	**List-II**
Disease/pathogen	**Vaccine type**
(A). Tuberculosis	(I). recombinant surface antigen
(B). Tetanus	(II). capsular polysaccharides
(C). Hepatitis B	(III). live attenuated whole organism
(D). Streptococcus pneumoniae	(IV). inactivated exotoxin

Choose the **correct** answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
3. (A) - (I), (B) - (III), (C) - (IV), (D) - (II)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

37 14681037 2.0 0.00

Protein A has a high affinity for which region of the immunoglobulins?

1. F_{ab} region
2. hinge region
3. complementarity determining regions
4. F_c region

A1 : 1

A2 : 2

		A3 : 3 A4 : 4		
Objective Question				
38	14681038	Which test is used for confirmation of HIV infection? 1. ELISA 2. Western Blotting 3. Dot Blotting 4. Northern Blotting A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
39	14681039	Complement products that act as anaphylatoxins are (A). C3a (B). C3b (C). C4a (D). C5a Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (C) and (D) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
40	14681040		2.0	0.00

		Some of the cytokines involved in innate immunity are (A). IL1 (B). INFα (C). IL2 (D). TNFα Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
41	14681041	Haemophilus influenzae can evade the immune response by ..... 1. secreting proteases that cleave IgA dimers 2. production of polysaccharide capsules 3. secreting elastases 4. induction of apoptosis in macrophages A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
42	14681042	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : The peptide binding cleft in MHC class I molecule is closed at both ends. Reason (R) : MHC class I molecule binds to peptides with 13-18 amino acid residues. In light of the above statements, choose the *most appropriate* answer from the options given below . 1. Both (A) and (R) are correct and (R) is the correct explanation of (A). 2. Both (A) and (R) are correct but (R) is NOT the correct explanation of (A). 3. (A) is correct but (R) is not correct. 4. (A) is not correct but (R) is correct.	2.0	0.00

		A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
43	14681043	Which gene segments are present within the α gene segments of T-cell receptors? 1. β gene segments 2. γ gene segments 3. δ gene segments 4. ε gene segments A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
44	14681044	The *gag* gene in HIV1 encodes the ..... 1. nucleocapsid protein 2. reverse transcriptase 3. protease 4. integrase A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
45	14681045		2.0	0.00

		Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Cross-reactivity occurs when an antibody reacts with more than one antigen. Reason (R) : Cross-reactivity occurs when two different antigens have very similar or identical epitopes. In light of the above statements, choose the *most appropriate* answer from the options given below . 1. Both (A) and (R) are correct and (R) is the correct explanation of (A). 2. Both (A) and (R) are correct but (R) is NOT the correct explanation of (A). 3. (A) is correct but (R) is not correct. 4. (A) is not correct but (R) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
46	14681046	Deficiency in adenine deaminase enzyme causes ..... 1. Severe combined immunodeficiency disease 2. Bare lymphocyte syndrome 3. hypersensitivity type I 4. Graves' disease A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
47	14681047	Rheumatoid factors are auto-antibodies that bind to ..... 1. DNA 2. IgG 3. acetylcholine receptors 4. peroxidase A1 : 1 A2 : 2 A3 : 3	2.0	0.00

		A4 : 4		
Objective Question				
48	14681048	Which cells are the predominant antigen-presenting cells? 1. Natural killer cells 2. Dendritic cells 3. Eosinophils 4. Mast cells A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
49	14681049	M-cells are specialized cells present in the ..... 1. gut-associated lymphoid tissues 2. thymus 3. bone marrow 4. spleen A1 : 1 A2 : 2 A3 : 3 A4 : 4	2.0	0.00
Objective Question				
50	14681050	Adjuvants increase (A). immune response (B). antigen persistence (C). dose requirements (D). vaccine targets oose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only.	2.0	0.00

		A1 : 1 A2 : 2 A3 : 3 A4 : 4		