

## Immunology MCQ exam

Immunology MCQ exam, True answer in Red

All of the following are true with respect to IgM antibodies EXCEPT which one .1

- A. they fix complement
- B. they occur on the surface of lymphocytes
- C. they predominate in the primary response to antigen
- D. they are glycoproteins
- E. they mediate allergic reaction

One principal function of complement is to .2

- A. inactivate perforins
- B. mediate the release of histamine
- C. Bind antibodies attached to cell surfaces and to lyse these cells
- D. phagocytize antigens
- E. cross link allergens

One principal function of the Class I and Class II major histocompatibility complex S proteins is to .3

- 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

The major role of the complement system is to work in conjunction with .4

- A. antibodies to lyse cells via the C8 and C9 components
- B. the major histocompatibility complex for cell recognition
- C. antibodies to opsonize cells
- D. the T-cell receptor for production of lymphokines
- E. antibodies to lyse cells via the perforin molecules

T-cell antigen receptors are distinguished from antibodies by which of the following .5

- 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

T-cell receptors or antibodies react with antigens .6

- A. because both are made by lymphocytes
- B. because of complementary of molecular fit of both with antigen
- C. because both 'have light chain and heavy chain polypeptides
- D. cause histamine release
- E. facilitate perforin release

?All of the following are true of antigen EXCEPT which one of the following .7

- .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

All of the following are true with respect to IgE molecules, EXCEPT which one .8

- .A. They are the principal immunoglobulin class involved in allergic reactions
- .B. They are involved in mediating anti-parasitic immune responses
- .C. They will cross the placenta and fix complement
- .D. They can effect the release of histamine and other chemical mediators
- .E. They are the least abundant immunoglobulin in the serum

Which of the following immunoglobulins is present normally in plasma at the .9  
?highest concentration

- A. IgG
- B. IgM
- C. IgA
- D. IgD
- E. IgE

?All of the following are true about antibodies, EXCEPT which one .10

- .A. They fix complement
- B. They occur on the surface of B-lymphocyte
- .C. They predominate the primary immune response to antigen
- .D. They are glycoproteins
- .E. They are molecule with a single, defined amino acid sequence

The major immunoglobulin family to which a particular immunoglobulin .11  
belongs can be determined by sequential analysis of the 110 amino acids  
beginning from the

- .A. Amino terminus of the light chain
- .B. Carboxy terminus of the light chain
- .C. Amino terminus of the heavy chain
- .D. Carboxy terminus of the heavy chain

The immunoglobulin Joining chain (J-chain) is .12

- A. only produced by T-Cells
- B. only produced by neutrophils
- C. associated with only multimeric forms of IgM and IgA
- D. associated with IgE for histamine release
- E. only produced by mast cells

All of the following are true EXCEPT .13

- A. An epitope is a small portion of a macromolecule
- B. the variable region domains contain the antigen recognition site
- C. an antigenic determinant is a paratope
- D. The class of an immunoglobulin is determined by its heavy chain
- E. An IgG antibody is bivalent

?Which immunoglobulin is the principal one found in secretions such as milk .14

- A. IgG
- B. IgM
- C. IgA
- D. IgD
- E. IgE

Individuals unable to make the J protein found in certain immunoglobulins .15  
would be expected to have frequent infections of the

- A. brain
- B. blood
- C. liver
- D. pancreas
- E. intestinal tract

?Which of the following statements best characterizes an antibody .16

- A. An antibody contains high molecular weight RNA as its basic structure
- B. An antibody is composed of protein and cannot be distinguished from the albumin fraction of the serum proteins
- C. An antibody is composed of four identical protein subunits which may be caused to dissociate by treatment with urea
- D. An antibody contains protein as its major chemical component and its synthesis may be elicited by the administration of a foreign protein or polysaccharide
- E. An antibody contains mucopolysaccharides as its major chemical component and the synthesis of these may be elicited by the administration of a foreign protein or polysaccharide

The immunoglobulin class which is the least abundant in the normal adult is .17

- A. IgG
- B. IgA
- C. IgM
- D. IgD
- E. IgE

Class switching of immunoglobulins occurs .18

- A. Usually with booster immunizations, going from IgM to IgG
- B. binds complement
- C. causes the histamine release
- D. mediates immunoglobulin class switching
- E. results in the glycosylation of immunoglobulins

When a B-cell undergoes immunoglobulin class switching .19

- A. the variable region of the light chain changes, but its constant region remains the same
- B. the variable region of the light chain remains the same, but its constant region changes
- C. the variable region of the heavy chain remains the same but its constant region changes
- D. the variable region of the heavy chain changes but its constant region remains the same
- E. both the variable and constant regions change

The class of an immunoglobulin .20

- 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 antigen
- D. is determined by the heavy chain type
- E. Is determined by the J-chain