1. Th2 responses induce expulsion of
   A) Tumors
   B) Helminths
   C) Bacteria
   D) None of the above

2. Mature dendritic cells are capable of which of the following?
   A) activating naïve antigen-specific T cells
   B) removing red blood cells
   C) producing bradykinin
   D) extracellular killing of target cells

3. .....is the ingestion by individual cells of invading foreign particles, such as bacteria.
   (A) Complement activation
   (B) Apoptosis
   (C) Phagocytosis
   (D) Opsonin

4. .....is the capacity of a compound to induce an immune response.
   (A) Antigenicity
   (B) Immunogenicity
   (C) Immunopotency
   (D) All the above

5. .....refers to the ability of a compound to bind with antibodies or with cells of the immune system.
   A) Antigenicity
   B) Immunogenicity
   C) Immunopotency
   D) All the above

6. The smallest unit of antigen that is capable of binding with antibodies and T cells is called.....
   A) Epitope
   B) Paratope
   C) Idiotype
   D) None of the above

7. The half-life (days) of IgG is.....
   A) 100
   B) 5.5
   C) 23
   D) 4

8. Primary and secondary antibody responses differ in
A) the predominant isotype generated
B) the number of lymphocytes responding to antigen
C) the time it takes for measurable amounts of antibodies to appear in the serum
D) all of the above

9. The intrinsic association constant that characterizes the binding of an antibody with an epitope or a hapten is termed
A) avidity
B) affinity
C) van der Waals
D) hydrogen bonds

10. FACS stands for
A) Fluorescence activator cell sorter
B) Fluorescence acting cell setting
C) Flow cytometer activator cell sorter
D) Flow cytometer acting cell sorter

11. CD as nomenclature in immunology refers to:
A) Cloning of dendritic cells
B) Cluster of dendritic cells
C) Cluster of differentiation
D) Cloning of differentiation

12. MHC class II molecules interact with CD4, whose expression defines the subset of T cells
A) $CD8^+$ T cells
B) $CD8^+CD4^+$ T cells
C) $CD4^+$ T cells
D) all the above

13. ..... are proteins synthesized inside a cell and are generally derived from pathogens (such as viruses, bacteria, and parasites) that have infected a host cell.
A) Exogenous antigens
B) Superantigens
C) Particulate antigens
D) Endogenous antigens

14. Granzymes trigger .....in the target cell both by directly activating caspases and by damaging mitochondria.
A) Growth
B) Proliferation
C) Apoptosis
D) Development

15. Which of the following T cells are essential in host defense against pathogens that reside the cytosol: most commonly viruses.
A) NK cells
B) $CD4^+$ T cells
C) Tregs
D) $CD8^+$ T cells

16. T cell education occurs in the …
A) B cell areas
B) Thymus
C) T cell areas
D) all the above

17. What is the full meaning of the family of the transcription factor STATs?
A) signal transducers and activators of transcription
B) secreting transcription and activation of transcript
C) signal transcription and activation of transcript
D) secreting transcript and activator of transcription

18. How many Toll-like receptor genes are there in humans?
A) 10000
B) 10
C) 4
D) 100

19. Toll-like receptors are activated by
A) PAMPs
B) CAMPs
C) SAMPs
D) All the above

20. Which of the following TLRs is mainly activated by lipopolysaccharide (LPS)?
A) TLR-1
B) TLR-2
C) TLR-3
D) TLR-4

21. Immunity mediated by antibodies is known as ……
A) Cell-mediated
B) Humoral
C) Active
D) Passive

22. The inoculation of a healthy individuals with weakened or attenuated strains of disease-causing agents in order to provide protection from disease is described as....

A) Vaccination
B) Variolation
C) Immunology
D) Immunity

23. Small proteins (25kDa) that are released by various cells in the body, usually in response to an activating stimulus, and induce responses through binding to specific receptors is known as....

A) Antibodies
B) Cytokines
C) Proteins
D) Antigens

24. PBMCs stand for:

A) Peripheral blood mononuclear cells
B) Peripheral blood mincnuclei cells
C) Peripheral blood polymorphonuclear cells
D) Peripheral blood polyminonuclei cells

25. ELISA stands for:

A) Enzyme-linked immsorbent assays
B) Enzyme-linked immunosorbent assay
C) Enzyme-linked radioimmunosorbent assay
D) Enzyme-linked immuneradiosorbent assay

26. Which of the following is the signature molecule for Th1 response?

A) IL-4
B) IL-39
C) IFN-gamma
D) TNF-alpha

27. Activation of naïve T cells leads to their

A) Proliferation and differentiation into effector T cells
B) Proliferation and death into effector T cells
C) Proliferation and apoptosis into effector T cells
D) Proliferation and synthesis into effector T cells

28. How many kinds of signals are required in activation of naïve T cells by antigen-presenting cells?
A) 40
B) 3
C) 1
D) 10

29. Which of the following antigen-presenting cells is responsible for priming naïve T cells?
A) Macrophages
B) B cells
C) Epithelial cells
D) Dendritic cells

30. Dendritic cells arise primarily from
A) Myeloid progenitor
B) Lymphoid progenitor
C) T cells
D) All the above

31. What does light emitted as forward scatter (FSC) measure?
A) Granularity/complexity
B) Size
C) Shape
D) Weight

32. What does light emitted as side scatter (SSC) measure?
A) Internal granularity/complexity
B) Size
C) Shape
D) Weight

33. An antibody molecule comprises three equal-sized globular portions, with its two arms joined by a flexible stretch of polypeptide chain known as the…
A) Y shaped
B) fragment
C) hinge region
D) constant region

34. Papain digest IgG into
A) 2 Fab fragments and 1 Fc fragment
B) 2 Fab fragments and 2 Fc fragments
C) 1Fab fragment and 2 Fc fragments
D) 1Fab fragment and 1 Fc fragment

35. Which of the following is responsible for immune specificity
A) Antigen
B) Super antigen
C) Cytokine
D) Antibody

36. Monoclonal refers to
A) Single clone of antibody producing cells
B) Multiple clones of antibody producing cells
C) Antibody molecules are not identical
D) All the above

37. IgE provide
A) immunity against viruses
B) immunity against some parasites
C) secretions in the body
D) complement killing of bacteria

38. A secondary antibody is one
A) that binds to itself
B) produced in boostered animals
C) that binds to another antibody
D) that is synthetically produced in the lab

39. The main function of antibodies is to
A) Kill everything in the body
B) Protect the nervous system
C) Confer immunity
D) Combine with antigen which induces it, inactivate the antigen and protect the body from disease

40. How many types of light chains are there
A) 20
B) 2
C) 2000
D) 200

41. In humans the average kappa to lambda in serum is a ratio of:
A) 1:2
B) 20:1
C) 1:20
D) 2:1

42. The importance of CTLA-4 is in
- Tolerance induction
- B) Enhancing stimulation
- C) Supporting growth
- D) All the above

43. CD28 functionally competes with .....after prolonged activation
- A) IL-4
- B) TLR-2
- CTLA-4
- D) TNFalpha

44. MHC class I and class II molecules are
- A) Non-membrane bound heterodimers
- Membrane bound heterodimers
- C) Membrane bound tetradimers
- D) Non membrane bound tetradimers

45. Super-antigens stimulate whole families of lymphocyte receptors, all the following are super-antigens except
- A) Toxic shock syndrome toxin-1 (TSST-1)
- B) *Staphylococcus aureus* enterotoxin A (SEA)
- C) *Staphylococcus aureus* enterotoxin B (SEB)
- *Litosomoides sigmodontis* antigen

46. MHC class II molecules have .....residues
- A) 20-30
- 14-20
- C) 4-8
- D) 8-10

47. The innate immune system uses germline-encoded receptors while the adaptive immune system uses antigen receptor of unique specificity assembled from incomplete gene segments during lymphocytes development.
- A) True
- False

48. DAMP's stand for:
- A) Delayed associated microbial patterns
- Death associated molecular pattern
- C) Designed associated molecular pathways
- D) Destroyed associated molecular pathogens

49. Dendritic cells were discovered in the 1970s by:
A) Row Steinman
B) Ralph Steinman
C) Lawrence Steinman
D) Louis Steinman

50. The beginning of immunology as a science is usually attributed to:
A) Robert Koch
B) Louis Pasteur
C) Edward Jenner
D) Elie Metchnikoff

51. Which of the following is the most abundant immunoglobulin (Ig)
A) IgM
B) IgG
C) IgA
D) IgE

52. IgG consists of.....
A) 2 light chains and two heavy chains joined by di-sulphide bond
B) 2 light chains and two heavy chains joined by hydrogen bonds
C) 2 light chains and a heavy chain joined by a di-sulphide bond
D) a light chain and two heavy chains joined by a di-sulphide bond

53. Which of the following can cross placenta and provide passive immunity to a new born?
A) IgM
B) IgG
C) IgA
D) IgE

54. Which is the Ig that first reaches the site of infection
A) IgM
B) IgG
C) IgA
D) IgE

55. Which is the largest Ig
A) IgM
B) IgG
C) IgA

D) IgE

56. Which of the following statements are true?
A) IgM is involved in primary immune response
B) IgG is involved in primary immune response
● Both IgM and IgG are involved in primary immune response
D) IgG is involved only in secondary immune response

57. Which of the following statements is true regarding IgM?
A) IgM is a pentamer and is the largest Ig
B) IgM exists as monomer on B cell surface
C) IgM is involved in early primary immune response
● All the above

58. Light chains and heavy chains are joined by
A) Covalent bond
B) Hydrogen bond
● Di-sulphide bond
D) Ionic bond

59. The antigen-binding site on an antibody is called.....
A) Antitope
B) Epitope
● Paratope
D) Endotope

60. An antibody has.....
● 2 Fab regions and an Fc region
B) An Fab region and an Fc region
C) 2 Fab regions and 2 Fc regions
D) Many Fab regions and many Fc regions

61. The hypervariable region resides in the.....
A) N-terminal region of the light chain
● N-terminal region of the light chain and heavy chain
C) C-terminal region of light chain
D) C-terminal region of light chain and heavy chain

62. Fab stands for
A) Fragment antibody binding
● ragment antigen binding
C) Fragment antibody and antigen binding
D) Fragment affinity binding

63. Fc region.....
A) has a hypervariable region that binds with antibody
B) has a hypervariable region that binds with antigen
C) has a hypervariable region that binds with other immune cells
D) All the above

64. The ability of antigen to stimulate antibody production is called.....
A) Affinity
B) Antigenicity
C) Elicitation
D) Neutralization

65. Clearance of antigens by antibodies involve.....
A) Neutralization and agglutination
B) Opsonization and complement activation
C) Precipitation
D) All the above

66. The hypervariable region of antibody consists of.....
A) 5-10 amino acids that form antigen binding site
B) 50-100 amino acids that form antigen binding site
C) 5-10 amino acids that form the antibody binding site
D) A part of constant region of heavy and light chain

67. Which of the following statements is true?
A) All immunogens are antigens but all antigens are not immunogens
B) All immunogens are antigens and all antigens are immunogens
C) All immunogens are not antigens but all antigens are immunogens
D) All immunogens are proteins and all proteins are immunogens

68. Any agent that may stimulate the immune system and enhance the response without any specific antigenic effect by itself is .....
A) Antigen
B) Allergen
C) Adjuvants
D) Carriers

76. B and T cells are produced by stem cells that are formed in:
A) Bone marrow
B) Liver
C) Spleen
D) Lymph nodes

77. B cells mature in the..... while T cells mature in the.....
A) Thymus/bone marrow and gut associated lymphoid tissue (GALT)
B) Spleen/bone marrow and GALT
C) Bone marrow and GALT/Thymus
D) Liver and Kidneys

78. Which of the following immune cells/molecules are most effective at destroying intracellular pathogens?
A) T helper cell
B) B cells
C) Complement
D) Cytotoxic T cells

79. B Cells are activated by
A) Complement
B) Antigen
C) Antibody
D) Interferon

80. Fusion between a plasma cell and a tumor cell creates a
A) Hybridoma
B) Myeloma
C) Lymphoblast
D) Lymphoma

81. Monoclonal antibodies recognize a single:
A) Antigen
B) Bacterium
C) Epitope
D) B cell

82. Cell mediated immunity is carried out by..... while humoral immunity is mainly carried out by.....

A) B cells/T cells
B) Epitopes/Antigens
C) T cells/B cells
D) Antibodies/Antigens

83. The ability of the immune system to recognize self antigens versus nonself antigen is an example of:

A) Specific immunity
B) Tolerance
C) Cell mediated immunity
D) Antigenic immunity

84. All the following comes under non-specific defense mechanism except.....

A) Fever
B) Phagocytes
C) Cell mediated immunity
D) Complement system

85. Any molecule that induces or elicits an immune response are.....

A) Antigen
B) Antibodies
C) Epitope
D) Immunogen

86. Haptens cannot activate T cells or B cells due to.....

A) Its low molecular weight antigen arbuscules
B) Its inability to bind to MHC
C) Both a and b
D) None of these

87. Which of the following can act as a hapten

A) Cyanide
B) Paracetamol
C) Penicillin
D) None of these

88. The functions of macrophages includes...

A) Phagocytosis
B) Antigen presenting cells
C) Cytokine production

D) All the above

89. Tissue damage caused by wound of invading pathogenic organism induces a complex sequence of events collectively known as....
A) Opsonization
B) Phagocytosis
C) Inflammation
D) None of these

90. Generally, antibodies produced against a pathogen is.....
A) Monoclonal
B) Homogenous
C) Polyclonal
D) All have the same specificity

91. The transcriptional factor for Th1 is.....
A) GATA-3
B) T bet
C) RORγt
D) FoxP3

92. The transcriptional factor for Th2 is.....
A) T bet
B) GATA-3
C) RORγt
D) FoxP3

93. The transcriptional factor for Th17 is.....
A) T bet
B) GATA-3
C) FoxP3
D) RORγt

94. The following methods of diagnosis utilize labelled antibodies except.....
A) ELISA
B) Hemagglutination inhibition test
C) Radio immunoassay
D) Immunofluorescence

95. In the indirect ELISA test the enzyme-linked antibody will attach to.....
A) the patient antigen
B) the variable region of the patient antibody
C) the constant region of the patient antibody

103. The blockage of vitamin B_{12} uptake by autoantibodies to intrinsic factor describes the autoimmune disease:

A) Pernicious anemia
B) Multiple sclerosis
C) Myasthenia gravis
D) None of the above

104. The main chemical difference between blood group O and A is:

A) The presence of fucosyl group in O, but its absence in A
B) The presence of N-acetyl galactosamine group in addition to fucosyl group in A
C) Group O is a universal donor, but group A is not
D) Presence of galactosyl- group as well as fucosyl group in A

105. The following responses are examples of Arthurs' hypersensitivity reactions except:

A) Antigen-Antibody complexes formed are mainly Ag_1Ab_4, $AgAb_2$, Ag_4Ab_5
B) Antigen-Antibody complexes are formed with attraction of C to reaction site
C) Reaction involves inhalation of fungal or bacterial spores into the lungs
D) Reactions occur after administration of anti-toxin antibodies into individuals

106. Detection of recipient alloantigens against donor alloantibodies will normally describe:

A) General blood typing procedure
B) Minor cross-match procedure in blood typing
C) Detection of adulterated meat through blood typing
D) Major cross-match procedure in blood typing

107. Autoimmunity can arise from all the following mechanisms, *except*

A) Clonal deletion of self-reactive T cells.
B) Molecular mimicry.
C) New expression of class II MHC antigens.
D) Polyclonal activation of B cells.

108. An erythroblastosis baby will be best served by receiving transfused blood from:

A) The mother
B) The father
C) A sibling
D) Any individual who is Rh-

109. Hashimoto's thyroiditis can best be differentiated from Graves' disease on the basis of which of the following?

A) Decrease in thyroid hormone level

B) Presence of thyroid peroxidase antibodies
C) Enlargement of the thyroid gland
D) Presence of lymphocytes in the thyroid

110. During blood transfusion, attack of recipient's red cells by donor allo –antibodies is not very serious, mainly because:
A) Recipient red cells are different from donor alloantibodies
B) This is observed only when expired blood was transfused
C) Donor blood is often diluted significantly in recipient
D) None of the above is a good reason

111. All the following are mechanisms involved in delayed type hypersensitivity reactions except:
A) Appearance of free antibody in serum after peak of reaction
B) Activation of macrophages by cytokines
C) Blast transformation reactions
D) Destruction of tissues by lytic enzymes

112. All the following items can cause delayed type hypersensitivity except:
A) Cosmetic products
B) Household dust
C) Some metallic products
D) Some antibiotic drugs

113. Vasoconstrictors are often used as therapeutic treatment of type I hypersensitivity because:
A) They bind to histamine receptors to block histamine binding
B) They bind to mast cells to prevent mast cell degranulation
C) They constrict blood vessels and thus cause increase in blood pressure
D) They reduce histamine levels in the blood

114. The mechanism by which broncho-dilators work in controlling anaphylactic hypersensitivity is:
A) They continually remove mediators when produced
B) They prevent influx of Calcium ions into the cell
C) They block conversion of histidine to histamine in the cell

) They prevent mast cell degranulation by stabelising cAMP levels in cells

115. An isologous donor can donate graft to one of the following in the population:
A) A sibling brother or sister
B) A grandmother or grandfather
An identical twin sister or twin brother
D) Only to the same donor

116. Failure of pregnant women to reject the fetuses which are allografts in principle is due to the fact that:
A) Pregnancy induces tolerance in the women towards the foetuses
The uterus is considered a privileged site lacking lymphatic drainage
C) Some of the medications taken by pregnant women act as immunosuppressors
D) None of the above is correct

117. Goitre is a result of immune system dysfunction because:
A) The response takes between 2 – 8 hours to be manifested
B) Medications taken by such individuals disrupt their normal immune functions
C) The individual destroys his/her own thyroid tissue by an autoimmune response
All the above are good reasons

118. An enzyme analysis was conducted on an individual's blood and was found to contain two types of transferases in addition to fucosyl-transferase. The blood group of this individual is most likely to be:
A) Group O
B) Group A
C) Group B
Group AB

119. It is never advisable to use universal donor blood if there is adequate time for typing the blood. This precaution is necessary mainly because:
Recipient and donor minor groups may differ significantly
B) Donor blood can sensitize recipient by the ABO incompatibility
C) The universal donor blood might not have been typed adequately
D) None of the above is a good reason

120. Monoclonal antibodies can sometimes be used in the treatment of certain types of hypersensitivity reactions. These antibodies work mainly by:
A) Binding to any mediators released into circulation
B) Binding to IgE which is bound to mast cells in the individual's system
C) Binding to IgE found in circulation in the individual's system
D) Blocking the release of mediators from mast cells

121. This drug is used as an immunosuppressive agent in transplantation by preventing cell division due to its alkylation of DNA:
A) Azathioprine
B) Methotrexate
C) Cyclosporin A
D) Cyclophosphamide

122. All the following are strong evidences of graft rejection being an immunological response, except:
A) Memory created against a rejected transplant cannot protect against a different transplant
B) A recipient rejecting a transplant will have high antibody titre against the rejected tissue
C) A recipient will normally mount more rapid reaction against a second transplant of same tissue
D) The recipient normally shows delayed hypersensitivity to the transplanted tissue

Indicate A (True) or B (False) for each of the following statements

123. Histamine, heparin and bradykinins are all considered as primary mediators in anaphylaxis..... B

124. An example of type I anaphylactic hypersensitivity is reaction to bee sting, while reaction to mosquito bite is classified as type I cutaneous hypersensitivity..... A

125. Anaphylactic hypersensitivity could be lethal, this is due mainly to rapid drop in blood pressure due to blood vessel dilation from histamine release..... A

126. The mechanism by which monoamine oxidase works in preventing type I hypersensitivity is to prevent influx of Ca ions into the cells..... B

137. When a patient needs liver transplant, the process will likely be more successful if the doctors use Cyclosporin A in combination with corticosteroids compared to when they use azathioprine in combination with corticosteroids as the immunosuppresant.....A.....

138. A graft patient who is showing signs of ranting syndrome is probably suffering from Graft versus Host reaction.....A.....

139. Presence of only Fucosyl transferase enzyme in blood.....
A) Minor cross
B) Blood typing
C) Blood group O
D) Rh alloantigens

140. Alloantibodies are IgG isotypes.....
A) Minor cross
B) Blood typing
C) Blood group O
D) Rh alloantigens

141. Identification of adulterated meat.....
A) Minor cross
B) Blood typing
C) Blood group O
D) Rh alloantigens

142. Detection of recipient alloantigens against donor alloantibodies.....
A) Minor cross
B) Blood typing
C) Blood group O
D) Rh alloantigens

143. Intravenously administered allergen
A) Arthurs' rxn
B) Anaphylaxis
C) Type II isoimmune
D) D) Atopic allergy

144. Bronchiospasm, reddening of eyes
A) Arthurs' rxn
B) Anaphylaxis
C) Type II isoimmune
D) D) Atopic allergy

C) The spleen cells will induce a graft versus host reaction in the recipient.
D) The spleen cells will survive and induce tolerance of strain A grafts in the recipient.

153. Which one of the following diseases has been completely eradicated world-wide?
A) Measles
● Smallpox
C) Tuberculosis
D) Cowpox
E) Psittacosis

154. BCG is used to protect against:
● Tuberculosis
B) Rabies
C) Hepatitis B
D) Influenza
E) Pertussis

155. Tetanus toxoid is usually given to humans:
A) Absorbed to aluminum hydroxide
B) With complete Freund's adjuvant
● Without the addition of any other agent
D) Together with the toxin
E) Only as a therapeutic agent, not prophylactically

156. Most vaccinations required in the US represent which form of immunity?
A) adoptive
B) innate
● active
D) passive

157. The process of introduction of weakened pathogen into human body is called
A)Immunization
● vaccination
C) attenuation
D) none of these

158. The process of weakening a pathogen is called
A) vaccination
● attenuation
C) immunization

D) virulence reduction

159. A vaccine can be
A) an antigenic protein
B) weakened pathogen
C) live attenuated pathogen
D) all of these

160. Which of the following statements are true regarding polio vaccines
A) Salk and Sabin are polio vaccines
B) Sabin is live attenuated polio vaccine
C) Salk is an inactivated polio vaccine
D) all of these

161. Which of the following is a polysaccharide vaccine
A) anthrax vaccine
B) rabies vaccine
C) hepatitis A
D) Hib vaccine

162. All the given vaccines are attenuated or inactivated whole pathogen except
A) salk
B) sabin
C) hepatitis A
D) tetanus

163. Which of the following statement is true regarding vaccination
A) vaccination is a method of active immunisation
B) vaccination is a method of passive immunisation
C) vaccination is a method of artificial passive immunisation
D) vaccination is a method of natural passive Immunization

164. Active immunity may be gained by
A) natural infection
B) vaccines
C) toxoids
D) all of these

165. A vaccine can be
A) an antigenic protein
B) weakened pathogen
C) live attenuated pathogen
D) all of these

166. Passive immunisation include
A) introduction of antibodies directly
B) transfer of maternal antibodies across placenta
C) transfer of lymphocyte directly
D) all of these

167. An antigenic determinant is
A) a small topological feature of a large macromolecule such as a protein or carbohydrate
B) specifically recognized by a epitope
C) specifically recognized by a carbohydrate
D) specifically recognized by the T4 protein

168. A critical property of an antibody is
A) its ability to stimulate an immune response
B) a unique topotogical feature called an paratope
C) a unique topological feature called an epitope
D) a unique topological feature called an antigenic determinant

169. All of the following are true EXCEPT
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

170. Your patient tests positive for the tuberculin antigen. You send him for a chest x-ray because:
A) the tuberculin test is only presumptive, indicating that he has been exposed to a tuberculosis antigen.
B) He may have other lung infections.
C) you are looking for fluid in his lungs due to inflammation caused by the bacillus
D) A and B.
E) none of the above

171. Penicillin is a hapten in both humans and mice. To explore the hapten-carrier relationship, a mouse was injected with penicillin covalently bound to bovine serum albumin and, at the same time, with egg albumin to which no penicillin was bound. Of the following, which one will induce a secondary response to penicillin when injected into the mouse 1 month later?
A) penicillin
B) penicillin bound to egg albumin
C) egg albumin
D) bovine serum albumin

172. The main advantage of passive immunization over active immunization is that
A) it can be administered orally.
B) it provides antibody more rapidly.
C) antibody persists for a longer period.
D) it contains primarily IgM.

Questions 173-176
A) Fab fragment of IgG
B) Fc fragment of IgG

173. Contains an antigen-combining site A
174. Contains hypervariable regions A
175. Contains a complement-binding site B
176. Is crystallizable B

177. An immunologic adjuvant serves to.....
A) stabilize antigen-antibody interactions
B) increase immunogenicity
C) all of the above
D) none of the above

178. A type A, Rh+ woman gave birth to type O, Rh- baby. Therefore, all the following statements are True except:
A) The mother must be heterozygous for Rh antigen
B) The mother does not have the AA genotype
C) The father could have the BO, Rh+ genotype
D) A type AB, Rh+ man could not be the father
E) The baby may have the AO genotype

179. Intentional protection of a future newborn against Rh disease involves:

A) Passive immunization of newborn to remove the Rh antigen.....

B) Passive immunization of mother to remove the antigen.....

C) Active immunization of the mother to produce trans-placental IgG.....

D) Use of steroids to remove maternal immune reactivity.....

E) None of the above.....

180. Most cells that function in innate immunity contain granules, which play a major role i cytotoxicity and the ability of the cell to destroy foreign cells. Examples of such cells include a of the following except;

A) natural killer (NK) cells

B) plasma cells

C) macrophages

D) neutrophils