

**Question Bank for
TYBSc Semester-V
Paper-II**

- 1) Which immunoglobulin occurs as dimer in the external seromucous secretion?
 - a) IgD
 - b) IgG
 - c) IgM
 - d) IgA

- 2) Which pathway is used by the cells to process and present the endogenous antigens?
 - a) Hexose monophosphate pathway
 - b) Endocytic pathway
 - c) Cytosolic pathway
 - d) Embden Meyerhof pathway

- 3) What are Sub-unit vaccines?
 - a) Vaccines made from pathogen made to grown in foreign host under conditions that make it less virulent.
 - b) Vaccines made from single or multiple antigenic components of a microorganism.
 - c) Vaccines contain the entire infectious agent that is made harmless and incapable of replication in the host.
 - d) Vaccines consisting of recombinant plasmid DNA encoding for an antigenic protein from a pathogen.

- 4) Failure from absorption of Vitamin B12 from gastrointestinal tract results in which of the following deficiency?
 - a) Pernicious anemia
 - b) Sick cell anemia
 - c) Aplastic anemia
 - d) Thalassemia

- 5) Which of the following is not a Granulocyte?
 - a) Monocyte
 - b) Eosinophil
 - c) Basophil
 - d) Neutrophil

- 6) In which type of cancer, excess bone marrow cells occur with low RBC count
 - a) Lymphoma
 - b) Leukemia
 - c) Myeloma
 - d) Blood cancer

- 7) Which of the following age groups are more susceptible to infections?
- a) Women of reproductive ages.
 - b) Young and Adults.
 - c) Infants and Old.
 - d) Males of reproductive ages.
- 8) How many types of antibody isotypes are present in placental Mammals?
- a) Seven
 - b) Three
 - c) Five
 - d) Eight
- 9) The Coombs test is used for detection which of the following disease?
- a) HIV infection.
 - b) Detect Rheumatoid arthritis.
 - c) Tuberculosis.
 - d) Hemolytic disease of the new born.
- 10) Proerythroblast is developed from which of the following stage?
- a) Haemocytoblast
 - b) Normoblast
 - c) Reticulocyte
 - d) Erythrocyte
- 11) Which one of the following is not a clotting factor?
- a) Fibrinogen
 - b) Prothrombin
 - c) Christmas factor
 - d) Iodine
- 12) Malaria is transmitted through which host?
- a) Femal Anopheles Mosquito
 - b) Male Anopheles Mosquito
 - c) Sandflies
 - d) Leishmania
- 13) What is the cause of death in myloema?
- a) Kidney failure
 - b) Tumor
 - c) Bone pain
 - d) Bone fracture

- 14) Hyperplasia of the myeloid tissue can be found in which disease?
- Thalassemia
 - Myelocytic leukemia
 - Lymphocytic leukemia
 - Granulocytic leukemia
- 15) Which receptor is present on Mast cells that play important role in allergic response?
- CR1 and CR3 receptors of complement system.
 - Ia protein which binds with the Ia receptor of the T lymphocytes.
 - FcεRs receptors that bonds to the Fc region of IgE.
 - Cell surface antibodies that bind to antigens.
- 16) Which of the following cell type differentiate and develop Macrophages?
- B-cells
 - Granulocytes
 - T-cells
 - Monocytes
- 17) Which is the only immunoglobulin that crosses the human placenta?
- IgD
 - IgM
 - IgG
 - IgE
- 18) In Laurell's Rocket electrophoresis, what is the relationship of between height of the precipin rockets and the concentration of antigen?
- Height of the precipin rockets increases with decrease in the concentration of antigen.
 - Height of the precipin rockets increases with increase in the concentration of antigen.
 - Height of the precipin rockets increases has no relation with the concentration of antigen.
 - Precipin rockets indicate false positive reaction.
- 19) Which of the following method is routinely used for blood grouping?
- Immunoelectrophoresis.
 - Latex agglutination.
 - Slide hemagglutination.
 - Double immunodiffusion assay.
- 20) What is the term used for Precursor cells of platelets?
- Megakaryocytes
 - Metamyelocyte
 - Myeloblast
 - Reticulocyte
- 21) Congenital defect in hemorrhagic tendencies are seen in which disease?

- a) Hemophilia
- b) Hypoprothrombinemia
- c) Fibrinogenopenia
- d) Pseudohemophilia

22) If lymphoma is diagnosed, which levels are checked?

- a) Kidney Function Tests
- b) Liver Function Tests
- c) Lactate Dehydrogenase
- d) Compatibility Testing

23) Which cytokines are released by Macrophages encountering invading microbes that lead to increase in body temperature?

- a) IL -1, IL-6 and TNF- α
- b) Prostaglandins and Leukotrienes
- c) Perforins and Granzymes
- d) GnRH, FSH and TSH

24) Which of the following occurs during Oxygen dependent intracellular killing of microorganisms?

- a) Conversion of oxygen to superoxide anion, singlet oxygen and hydroxyl radicals.
- b) Decreased glycolysis and oxygen consumption.
- c) Anabolic enzymes kill and digest the pathogen.
- d) Proteolytic enzymes kill and digest the pathogen.

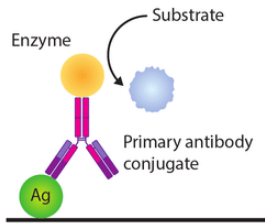
25) Which of the following is an example of natural active immunization?

- a) Immunity acquired by accidental exposure to foreign microbes or macromolecules.
- b) Secretory IgA in colostrums protects infant against gut pathogens.
- c) Vaccines used for immunization against diseases caused by pathogens.
- d) Administration of anti-venom in individuals with incidence of snake bite.

26) What are Viral-like particles?

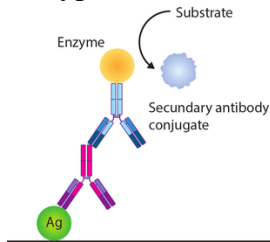
- a) Supra-molecular protein structures formed by viral proteins in vitro in the absence of a viral genome.
- b) Toxins that are inactivated by chemical or physical treatment.
- c) Entire infectious agent that is made harmless and incapable of replication in the host.
- d) Vaccines consisting of recombinant plasmid DNA encoding for an antigenic protein from a pathogen.

27) Which type of ELISA is depicted in the following picture?



- a) Direct ELISA
- b) Competitive ELISA
- c) Sandwich ELISA
- d) Indirect ELISA

28) Which type of ELISA is depicted in the following picture?



- a) Indirect ELISA
- b) Competitive ELISA
- c) Sandwich ELISA
- d) Direct ELISA

29) Which of the following statements is correct for Innate Immunity?

- a) The immunity present at birth.
- b) The immunity gained through experience.
- c) The immunity gained through exercise.
- d) The immunity gained following exposure to pathogen or antigen.

30) Which of the following are secondary lymphoid organs?

- a) Pituitary and Thyroid
- b) Lymph node and Spleen
- c) Adrenal and Parathyroid
- d) Thymus and Bone Marrow

31) Which carrier particle is used in a passive hemagglutination test?

- a) Polystyrene beads.
- b) Latex beads.
- c) Bentonite beads.
- d) Erythrocytes

32) What is the serological importance of prozone in precipitation reaction?

- a) Because the serum rich in antigens that may sometimes give false positive precipitation reactions.
- b) Because the serum may not contain any antibodies and so show positive precipitation reactions.
- c) Because the serum rich in antibodies may sometimes give false negative precipitation reactions.
- d) Because the serum may not contain any antigens that may sometimes give false positive precipitation reactions.

33) What is the normal lifespan of erythrocyte?

- a) 30 days
- b) 60 days
- c) 120days
- d) 240days

34) Which one of the following can be detected by using thick blood film?

- a) Morphology of blood cells & Microbial agent
- b) Parasites
- c) Microbial agent
- d) Blood cells

35) What do we call a study of occurrence, distribution and determinants of diseases in a population?

- a) Epidemiology
- b) Thalassemia
- c) Leishmaniasis
- d) Lymphoma

36) In which of the following condition there is an impairment of blood coagulation or clotting?

- a) Coagulopathy
- b) Thalassemia
- c) Malaria
- d) Leishmaniasis

37) Which of the following is an example of Natural Passive Immunity?

- a) Administration of immuno-reactive cells from donor to the recipient.
- b) Administration of Hyper immune serum of human origin to the host.
- c) Vaccines used for immunization against diseases caused by pathogens.
- d) Secretory IgA in colostrums protects infant against gut pathogens.

38) Which therapy uses less toxic therapeutic doses that can be administered for long periods?

- a) Rescue therapy.
- b) Induction therapy.
- c) Maintenance therapy.
- d) Immuno-boosting therapy.

- 39) In double immunodiffusion assay (Ouchterlony method), what will you conclude if the lines of precipitation cross each other?
- a) The antigens under investigation are from same source.
 - b) The antigens under investigation are same (identical).
 - c) The antigens under investigation have partial identity.
 - d) The antigens under investigation are unrelated to each other (not identical).
- 40) By using which chemical Hemoglobin can be crystallized?
- a) Liq. ammonia
 - b) Glacial acetic acid
 - c) Conc Nitric acid
 - d) Potassium permanganate
- 41) Which one of the following can be detected by using thick blood film?
- a) Parasites
 - b) Blood cells
 - c) Morphology of blood cells &
 - d) Microbial agent
- 42) Aplastic Anemia is caused due to non-functioning of which organ?
- a) Liver
 - b) Spleen
 - c) Bone marrow
 - d) Kidney
- 43) Which of the following branch is concerned with identification of viruses in the blood?
- a) Virology
 - b) Parasitology
 - c) Toxicology
 - d) Oncology
- 44) Which of the following are Mediators of inflammatory response?
- a) Perforins and Granzymes
 - b) GnRH and TSH
 - c) Kinins and Histamines
 - d) Insulin and Cortisol
- 45) Which form of antigens show precipitation reaction?
- a) Inert form.
 - b) Particulate form.
 - c) Soluble form.
 - d) Antigens which are devoid of specific epitopes.

- 46) Which of the following is a monoclonal antibody used as precautionary measures against graft rejection?
- a) Calcineurin inhibitors.
 - b) IL-2R (CD25) antagonists.
 - c) Azathioprine.
 - d) Rapamycin
- 47) Which of the following is not a function of Hemoglobin?
- a) The transport of O_2 and CO_2
 - b) Acid-base balance of blood
 - c) formation of bile, stool and urine pigment
 - d) Initiation of conversion of prothrombin into thrombin
- 48) What is used as a anti-coagulant in the process of blood collection?
- a) EDTA
 - b) Plasma
 - c) Serum
 - d) Bisphosphonates
- 49) What term is used for organism in which the pathogen is harbored?
- a) Host
 - b) Ghost
 - c) Causative organism
 - d) Non of the above
- 50) Which of the following events are involved in inflammatory response?
- a) All of the mentioned events (i.e. Increased capillary permeability, Extravasation of phagocytes and Vasodilation)
 - b) Increased capillary permeability
 - c) Extravasation of phagocytes
 - d) Vasodilation
- 51) In a counter current immunoelectrophoresis, why is it necessary to adjust the pH of the buffer in the agar gel?
- a) So that the antigen and antibodies have opposite charges.
 - b) So that the antigen and antibodies have neutral charges.
 - c) So that both antigen and antibodies have net negative charges.
 - d) So that both antigen and antibodies have net positive charges.