



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, तिरुवनंतपुरम्-11

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY,

THIRUVANANTHAPURAM—695 011

ENTRANCE EXAMINATION: ACADEMIC SESSION 2020

PROGRAM: MD TRANSFUSION MEDICINE

Duration: 90 Minutes

Maximum Marks: 100

(Select the most appropriate answer; Each question carries one mark)

(There are no negative marking for wrong answer)

1. Antigenic difference between same species are called
  - a. Allo-antigen
  - b. Xeno-antigen
  - c. Poly-antigens
  - d. Iso-antigens
  
2. The most common cause of chronic abdominal pain is
  - a. Peptic ulcer syndrome
  - b. Irritable bowel syndrome
  - c. Chronic psychogenic pain
  - d. Worm infestations
  
3. By phototherapy bilirubin excretion is increased in
  - a. Liver
  - b. Skin
  - c. Urine
  - d. Sweat
  
4. Which is not a feature of hypoxia
  - a. Increased cerebral blood flow
  - b. Pulmonary vasodilation
  - c. Increased blood lactate
  - d. Increased cardiac output
  
5. Graft versus host disease is caused by
  - a. Donor T lymphocytes
  - b. Recipient T lymphocytes
  - c. Recipient B lymphocytes
  - d. Donor B lymphocytes

6. Hereditary spherocytosis is caused due to defect in
  - a. Glycophorin 31
  - b. Band 5.1
  - c. Selectin
  - d. Spectrin
  
7. Tetralogy of Fallot includes all except
  - a. Left ventricular hypertrophy
  - b. Ventricular septal defect
  - c. Aorta overriding the septum
  - d. Right ventricular outflow obstruction
  
8. The earliest plasma cardiac bio marker in myocardial infarction
  - a. Aspartate aminotransferase
  - b. Lactate dehydrogenase
  - c. Tyrosine
  - d. Creatine kinase
  
9. Necrosis resulting from immune reactions involving blood vessels is called
  - a. Liquefactive necrosis
  - b. Caseous necrosis
  - c. Gangrenous necrosis
  - d. Fibrinoid necrosis
  
10. Fragile X syndrome is an example of
  - a. Missense mutation
  - b. Deletions
  - c. Mutations within noncoding sequences
  - d. Trinucleotide repeat mutations
  
11. Epidemiology involves study of
  - a. Distribution of disease
  - b. Determinants of disease
  - c. Application to control disease
  - d. All of the above
  
12. Prevalence rate is greatly affected by
  - a. Incidence
  - b. Attack rate
  - c. Fatality rate
  - d. Duration of disease
  
13. National AIDS control programme was established in
  - a. 1987
  - b. 1990
  - c. 1992
  - d. 1996

14. Antibodies to HIV are detected after
- 2-8 weeks
  - 3-6 months
  - 1-2 years
  - 5-10 years
15. The form of malarial parasite which is infective to human is
- Merozoite
  - Hypnozoite
  - Gametocyte
  - Sporozoite
16. Breast milk is rich in
- IgA
  - IgG
  - IgD
  - IgM
17. Jaundice occurring within the first 24 hours of birth is most often due to
- Biliary atresia
  - Rh incompatibility
  - Neonatal hepatitis
  - Congenital rubella
18. Live born baby with hemolytic disease of newborns should be transfused with blood of group
- AB negative
  - AB positive
  - O negative
  - O positive
19. The most sensitive indicator of adequacy of body iron stores is
- Transferrin
  - Hemosiderin
  - Ferritin
  - Pre-albumin
20. All the following are seen in pathogenesis of beta-thalassemia major, except
- Hypochromic, microcytic anemia
  - Systemic iron overload
  - Normal erythroblasts
  - Skeletal deformities

21. All are examples of autosomal dominant disorders except
- Achondroplasia
  - Alkaptonuria
  - Marfan syndrome
  - Osteogenesis imperfecta
22. All are examples of autosomal recessive disorders except
- Wilson disease
  - Homocystinuria
  - Friedrich ataxia
  - Neurofibromatosis
23. Tay Sach disease results from mutation in the chromosome number
- 11
  - 13
  - 15
  - 21
24. All are features of turner syndrome except
- Coarctation of aorta
  - Low posterior hairline
  - Cubitus Varus
  - Peripheral lymphedema
25. The HLA allele associated with rheumatoid arthritis is
- DR3
  - DR4
  - DR5
  - DR6
26. The earliest hormonal deficiency clinically evident in hypopituitarism is
- GH
  - TSH
  - Gonadotropins
  - PRL
27. Mental retardation is a feature of dwarfism due to
- Hypothyroidism
  - Hyper-pituitarism
  - Hypo-pituitarism
  - All of the above
28. Amenorrhea is a feature of excessive secretion of
- LH
  - FSH
  - Prolactin
  - All of above

29. All of the following show strong association with HLA-B27 except
- Inflammatory bowel disease
  - Acute anterior uveitis
  - Reiter's syndrome
  - Felter's syndrome
30. The minimal blood loss that cause hypovolemic shock is
- 5-10%
  - 15-20%
  - 30-40%
  - 70-80%
31. Progesterone is produced by
- Corpus luteum
  - Corpus albicans
  - Endometrium
  - Anterior pituitary
32. Kernicterus is caused by
- Bile salts
  - Unconjugated bilirubin
  - Conjugated bilirubin
  - All of the above
33. All are true about eclampsia of pregnancy except
- D.I.C.
  - Convulsions
  - Common in multiparous women
  - Can develop frank coma
34. The contrast medium used in MRI is
- TDA
  - Gadolinium
  - Renografin
  - Myodil
35. The most common source of subdural hematoma is
- Venous blood
  - Arterial blood
  - Capillary ooze
  - Rupture of sinus

36. Tetany is indicative of
- Hyponatremia
  - Hyperkalemia
  - Hypocalcemia
  - Hypochloremia
37. Treatment of choice for Hemophilia A is
- Fresh Frozen plasma
  - Cryoprecipitate
  - Cryo poor plasma
  - Factor VIII concentrates
38. Budd Chiari syndrome is occlusion of
- Inferior vena cava
  - Renal vein
  - Portal vein
  - Hepatic vein
39. The tissue which is most sensitive and vulnerable to hypoxia in human beings is
- Heart
  - Brain
  - Kidney
  - Liver
40. The commonest type of blood transfusion reaction is
- Hemolytic transfusion reaction
  - Transfusion associated Graft-vs Host disease
  - Non-hemolytic febrile transfusion reaction
  - Transfusion transmitted HIV
41. Which test is not mandatory to be carried out in a donated unit of blood?
- HIV
  - HBsAg
  - Malaria
  - Bacteria
42. ABO blood group is discovered by
- Phillip Levine
  - William Harvey
  - Karl Landsteiner
  - Alexander Weiner

43. Which of the following is not a freeze-dried vaccine?
- BCG
  - Measles
  - Polio
  - Mumps
44. Elevated level of cold agglutinins are found in
- Good Pasture's syndrome
  - Sarcoidosis
  - Primary atypical pneumonia
  - SLE
45. T4/T8 ratio reversal is seen in
- T-cell lymphoma
  - AIDS
  - Hairy cell leukemia
  - Infectious mononucleosis
46. The ideal temperature for storage of packed red cells is
- 4 to 8°C
  - 0 to -18°C
  - 20 to 24°C
  - 10 to 18°C
47. C-reactive protein is not raised in
- Tuberculosis
  - Osteoarthritis
  - Rheumatoid arthritis
  - Pneumonia
48. Multiple myeloma is a disease of
- Red cells
  - White cells
  - Platelets
  - Plasma cells
49. Plasmapheresis is useful in
- Myasthenia Gravis
  - Gullian Barre syndrome
  - Both of the above
  - None of the above

50. The most frequent cause of post-partum hemorrhage is
- Coagulation failure
  - Anemia
  - Uterine atony
  - Injury to genital tract
51. In a Rh (-ve) mother who has delivered a Rh (+ve) baby, prophylactic anti-D is NOT indicated, if
- Direct Anti-human Globulin (AHG) test of cord blood is negative
  - Indirect Anti-human Globulin (AHG) test of mother's blood is negative
  - Direct Anti-human Globulin (AHG) test of cord blood is positive
  - Mother is a primigravida
52. Which of the following proteins bind with free hemoglobin in the plasma?
- Albumin
  - Heptaglobin
  - Pre-albumin
  - Ceruloplasmin
53. The causative agent for sexually transmitted infection donovanosis is
- Klebsiella granulomatis
  - Haemophilus ducreyi
  - Chlamydia trachomatis
  - Neisseria gonorrhoeae
54. Which type of plasmodium species is more virulent
- Falciparum
  - Vivax
  - Malarie
  - Ovale
55. Gas gangrene is commonly caused by which clostridium species
- Botulinum
  - Tetani
  - Perfringens
  - Difficile
56. The hemoglobin to appear first in the fetus is
- HbA
  - HbA2
  - HbF
  - Hb Gower



57. Fructose in semen is produced by
- Prostrate
  - Seminal vesicle
  - Testes
  - Epididymis
58. The commonest cause of hematemesis and melena is
- Chronic peptic ulcer
  - Acute peptic ulcer
  - Gastric carcinoma
  - Cirrhosis of liver
59. Physiological jaundice of newborn is characterized by all, except
- Jaundice on 2<sup>nd</sup> day of birth
  - Jaundice at birth
  - Jaundice ends by 8<sup>th</sup> day of birth
  - Kernicterus is not common
60. Which hematological changes are not encountered in DIC?
- Thrombocytopenia
  - Low FDP
  - Prolonged bleeding time
  - Afibrinogenemia
61. Which of the following deformity does not interfere with speech?
- Cleft lip
  - Cleft palate
  - Deafness
  - Tongue tie
62. If both the parents are AB blood group, then the child cannot be
- A group
  - B group
  - AB group
  - O group
63. CSF is principally secreted by
- Arachnoid granulations
  - Choroid plexus
  - Floor of IV ventricle
  - Peri-aqueductal gray

64. Anaphylaxis is mediated by all except
- Serotonin
  - Prostaglandins
  - Bradykinin
  - Anaphylatoxins
65. Carpal tunnel syndrome results from injury to
- Median nerve
  - Radial nerve
  - Ulnar nerve
  - Musculo-cutaneous nerve
66. HLA typing is useful in
- Blood transfusion
  - Organ transplantation
  - Plasma transfusion
  - Cord blood
67. Donath Landsteiner antibodies occur in
- Paroxysmal cold hemoglobinuria
  - Paroxysmal nocturnal hemoglobinuria
  - Thalassemia
  - Lymphoma
68. The first clinical manifestation of leprosy is usually
- Hypopigmented patch
  - Hypoesthesia
  - Nerve thickening
  - Tender nerves
69. The headquarters of World Health Organization is at
- New York
  - Rome
  - Geneva
  - Paris
70. Normal portal venous pressure is
- 3 – 4 mm Hg
  - 7 – 10 mm Hg
  - 15 – 20 mm Hg
  - 30 – 40 mm Hg

71. The SA node is predominantly supplied by
- Right coronary artery
  - Left coronary artery
  - Anterior descending artery
  - Circumflex coronary artery
72. Cardiomegaly is usually maximum in
- MS
  - MS & MR
  - AR
  - TR
73. The HLA genes are located on chromosomes
- 5
  - 6
  - 16
  - X-chromosome
74. Recombinant DNA technology was first manipulated in
- Pseudomonas
  - Klebsiella
  - Mycoplasma
  - E. coli
75. Life span of a normal erythrocyte is
- 90 days
  - 120 days
  - 150 days
  - 70 days
76. Exchange transfusion of newborns is commonly indicated in
- Physiological jaundice
  - ABO incompatibility
  - Rh incompatibility
  - Post-term baby
77. Which of the following is not seen in ARDS?
- Stiff lung
  - Pulmonary edema
  - Hypoxia
  - Hypercapnia

78. Which one of the following is not used in diagnosis of syphilis?
- VDR
  - Frei's test
  - Reagin test
  - TPHA
79. The mass media with the least effect in changing behavior of a person is
- Television
  - Poster
  - Films
  - Health education
80. Replacement of one type of cell with another type is defined
- Metaplasia
  - Dysplasia
  - Anaplasia
  - Hyperplasia
81. The common amyloid proteins seen in amyloidosis are all except
- AL
  - AA
  - A $\alpha$
  - A $\beta$
82. Chest X ray demonstrating a crescent sign is a classical feature of
- Mesothelium
  - Bronchogenic carcinoma
  - Aspergilliosis
  - Pulmonary tuberculosis
83. All of the following are derivatives of ectoderm except
- Skin
  - Sclera of eyes
  - Sweat glands
  - Distal part of anus
84. 90% of the nasal bleeding occurs from
- Anterior inferior part of nasal septum
  - Posterior part of nasal septum
  - Posterior part of lateral wall
  - Anterior part of lateral wall

85. The blood coagulation time is prolonged in the following conditions, except
- Hemophilia
  - Idiopathic thrombocytopenia
  - Heparin administration
  - Afibrinogenemia
86. Total body iron content is
- 10-15 gms
  - 8-14 gms
  - 2-6 gms
  - 16-18 gms
87. The commonest cause of death in Beta Thalassemia patients is mainly due to
- Tissue anoxia
  - Hepato-splenomegaly
  - Shock
  - Iron overload
88. Carpal bone which fractures commonly is
- Scaphoid
  - Lunate
  - Pisiform
  - Hamate
89. Salk vaccine is
- Live vaccine
  - Live attenuated vaccine
  - Killed vaccine
  - Toxoid
90. Antigen trapping cells are
- Monocytes
  - Macrophages
  - Lymphocytes
  - NK cells
91. The most common cause of diarrhea in infants and children are
- V. cholera
  - Rota virus
  - Salmonella
  - Shigella

92. The malignancy most commonly seen in AIDS is
- B cell lymphoma
  - Burkitt's lymphoma
  - Kaposi's sarcoma
  - Leukemia
93. The most common hematological disorder following gastrectomy is
- Megaloblastic anemia
  - Iron deficiency anemia
  - Dimorphic anemia
  - Folate deficiency
94. The last sinus to appear is
- Maxillary
  - Ethmoid
  - Frontal
  - Sphenoidal
95. Intrauterine blood transfusion is indicated in which of the following
- Intra-uterine growth retardation
  - Hydrops fetalis
  - Ectopic pregnancy
  - Twins
96. Scabies is caused by
- Tick
  - Louse
  - Mite
  - Flea
97. If a patient is found to have HIV infection, his prognosis is best assessed by
- Total leukocyte count
  - Titre of HIV antibodies
  - CD-4 lymphocyte count
  - Generalized muscle wasting
98. The obstetric complication of insulin dependent diabetes mellitus includes all, except
- Pre-eclamptic toxemia
  - Ante-partum hemorrhage
  - Maternal infection
  - Congenital malformation

99. Crohn's disease most commonly involves

- a. Jejunum
- b. Ileum
- c. Caecum and ascending colon
- d. Rectosigmoid colon

100. Pouch of Douglas is situated between

- a. Uterus and rectum
- b. Urinary bladder and anterior abdominal wall
- c. Uterus and bladder
- d. Bladder and rectum

