## Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum Thiruvananthapuram, Kerala

## Entrance Examination: Academic session 2017 DM Cardiology (Pediatrics)

Maximum marks: 100

**Duration: 90 minutes** 

Select the most appropriate answer

- 1. All the following statements are true about fetal haematopoiesis, except
  - A. Haematopoiesis in the yolk sac begins at 10-14 weeks of gestation
  - B. Fetal liver is the predominant erythropoietic organ at 18 20 weeks of gestation.
  - C. The spleen is the predominant haematopoietic organ at 20 24 weeks of gestation
  - D. There are hardly any neutrophils in fetal blood till third trimester
- 2. Acid sera lysis test is positive in
  - A. Congenital dyserythropoietic anemia type 1
  - B. Congenital dyserythropoietic anemia type 2
  - C. Congenital dyserythropoietic anemia type 3
  - D. Diamond-Blackfan anemia
- 3. Tubular proteinuria should be primarily considered in
  - A. Hypertensive patients with proteinuria >2 g/24 hours
  - B. Proteinuria of any degree with edema
  - C. First morning urine protein: creatinine ratio < 1.0
  - D. Proteinuria >30 g/24 hours
- 4. All of the following are true about Pediatric Modified RIFLE (PRIFLE) criteria, except
  - A. Risk: Urine output <0.5 ml/kg/hour for 12 hours
  - B. Failure: Urine output < 0.3 ml/kg/hour for 24 hours
  - C. Loss: Persistent failure >4 weeks
  - D. End stage: Persistent failure >3 months
- 5. Bohn nodules are
  - A. Epithelial remnants of dental lamina
  - B. Aberrant sebaceous glands
  - C. Papules at draining point of a dental sinus tract
  - D. Remnants of mucous gland tissue

- 6. All of the following are true about hypertrophic pyloric stenosis, except
  - A. It is more common in Whites compared to Asians
  - B. Hyperbilirubinemia is the most common clinical association of pyloric stenosis
  - C. Criteria for diagnosis include a pyloric thickness of 10 mm
  - D. It is unusual in stillbirths
- 7. Which of the following statements is true regarding the development of paranasal sinuses?
  - A. Sphenoidal and ethmoidal sinuses are present at birth
  - B. Frontal sinuses complete development by adolescence
  - C. Maxillary sinuses are pneumatized at birth
  - D. Ethmoidal sinuses complete pneumatization by 5 years of age
- 8. Volpe's classification is used for
  - A. Kernicterus
  - B. Necrotising enterocolitis
  - C. Intraventricular hemorrhage
  - D. Hypoxic ischemic encephalopathy
- 9. Mutations in Rhesus-associated glycoprotein is mainly implicated in
  - A. Hereditary spherocytosis
  - B. Hereditary elliptocytosis
  - C. Hereditary stomatocytosis
  - D. Paroxysmal nocturnal hemoglobinuria
- 10. Which of the following is not a cause of hypergonadotropic hypogonadism?
  - A. Fragile X syndrome
  - B. Werner syndrome
  - C. Fanconi anemia
  - D. Kallman syndrome
- 11. Evaluation of a girl who was otherwise healthy, but did not develop secondary sexual characters by 18 years of age, showed no gonadal tissue or vagina. Which of the following could be considered as the likely diagnosis?
  - A. Swyer syndrome
  - B. Aromatase deficiency
  - C. Lipoid adrenal hyperplasia
  - D. Embryonic testicular regression syndrome

- 12. All of the following are considered major risk factors for recurrence of febrile seizures, except
  - A. Complex febrile seizures
  - B. Age < 1 year
  - C. Duration of fever <24 hours
  - D. Fever 38 39 °C
  - 13. An infant presents with poor feeding and lethargy at 3<sup>rd</sup> week of life. Investigations showed blood sugar 84 mg/dl, serum calcium 9 mg/dl, elevated plasma ammonia. ABG: pH 7.41, pCO2 39mm Hg. Which of the following is the likely diagnosis?
    - A. Multiple carboxylase deficiency
    - B. Phenylketonuria
    - C. Carbamyl phosphate synthetase deficiency
    - D. Very long-chain acyl-CoA dehydrogenase deficiency
  - 14. Gender identity develops by
    - A. First year
    - B. Second year
    - C. Third year
    - D. Fourth year
  - 15. Prophylactic dose of iron in term infant
    - A. 1mg/kg/day
    - B. 2mg/kg/day
    - C. 3 mg/kg/day
    - D. 4 mg/kg/day
  - 16. Normal blood volume in a term neonate
    - A. 60 ml/kg/day
    - B. 70ml/kg/day
    - C. 80mi/kg/day
    - D. 90ml/kg/day
  - 17. During first trimester ultrasound scan, accurate gestational age assessment is made by measurement of
    - A. Femur length
    - B. Crown rump length
    - C. Biparietal diameter
    - D. Crown toe length

- 18. Quadruple test for screening of downs syndrome includes all except
  - A. Increased β- human chorionic gonadotropin
  - B. Increased α-fetoprotein
  - C. Increased Inhibin
  - D. Decreased unconjugated estriol
- 19. The storage site for surfactant in the alveoli is
  - A. Capillary endothelium
  - B. Type 1 pneumocyte
  - C. Lamellar bodies
  - D. Basal membrane
- 20. Polycythemia in a newborn is defined as central venous hematocrit more than
  - A. 65%
  - B. 55%
  - C. 70%
  - D. 75%
- 21. Hypocalcemia in newborn is defined as ionised calcium less than
  - A. 4 mg/dl.
  - B. 6 mg/dl
  - C. 7 mg/dl
  - D. 11 mg/dl
- 22. In Alkali denaturation (Apt-Downey) test, on adding 1% sodium hydroxide
  - A. Hb A changes from pink to yellow colour and HbF stays pink
  - B. Hb F changes from pink to yellow colour and HbA stays pink
  - C. Both HbA and HbF stay pink, but HbA will be less denser
  - D. HbA and HbF stay pink, but HbA will be more denser
- 23. All the following statements are true about Klinefelter syndrome, except
  - A. The extra X chromosome is maternal origin in all cases
  - B. It is most commonly due to meiotic nondisjunction of a X chromosome
  - C. Serum FSH and LH levels are normal before 10 years of age
  - D. There is an increased incidence of cancer of the breast
- 24. Adverse prognostic factor in Acute lymphoblastic leukemia is,
  - A. Age between 1 to 10 years
  - B. Initial leukocyte count <50,000/dl
  - C. Faster response to initial therapy
  - D. T-cell immunophenotype

25. What is	the	most	common	primary	malignant	tumour	of	bone	in	children	and
adolescei	nts?										

- A. Ewing's sarcoma
- B. Osteosarcoma
- C. Chondrosarcoma
- D. Giant cell tumour
- 26. intrauterine growth retardation is caused by all, except
  - A. Nicotine
  - B. Alcohol
  - C. Propranolol
  - D. Phenothiazine
- 27. A normal infant sits briefly leaning forward on her hands, reaches for and grasps a cube and transfers it from hand to hand. She babbles, but cannot wave bye-bye, nor can she grasp objects with thumb and finger. Her age is likely to be
  - A. 4 months
  - B. 7 months
  - C. 10 months
  - D. 14 months
- 28. Shakir tape is used for measurement of
  - A. Height
  - B. Length of infant
  - C. Mid arm circumference
  - D. Skin pad thickness
- 29. Which among the following is not a microdeletion syndrome?
  - A. Angelman syndrome
  - B. DiGeorge syndrome
  - C. Neurofibromatosis
  - D. CADASIL syndrome
- 30. Prostaglandin E1 is not used in
  - A. Erectile dysfunction
  - B. Critical limb ischemia
  - C. Hypoplastic left heart syndrome
  - D. Hypothermia
- 31. Stage IV Hypothermia is core temperature is less than
  - A. 32<sup>0</sup> C

- B. 28<sup>0</sup> C
- C. 24° C
- D. 20<sup>0</sup> C
- 32. 'Three vessel view' in fetal echocardiography demonstrates the following vessels except
  - A. Ascending aorta
  - B. Descending aorta
  - C. Pulmonary artery
  - D. Superior vena cava
- 33. All the following statements are true about Wilsons's disease except
  - A. Autosomal recessive inheritance
  - B. Copper deposition in Descemet's membrane manifest as KF ring
  - C. Serum ceruloplasmin level is markedly increased
  - D. Patients with hepatic involvement has earlier clinical presentation
- 34. Which among the following statement about Teixobactin is true?
  - A. It is a new antibiotic effective against gram negative organisms
  - B. It acts by inhibiting ribonucleosomes
  - C. It is produced by soil bacteria Eleftheria terrae
  - D. It is recommended for treatment of carbapenem-resistant enterobacteriaceae
- 35. Albert's stain is used in identification of
  - A. Corvnebacterium diphtheria
  - B. Clostridium tetani
  - C. Staphylococcus aureus
  - D. Campylobacter jejuni
- 36. Abernethy malformation is characterized by
  - A. Portosystemic shunt
  - B. Hepatobiliary stenosis
  - C. Intrahepatic portal hypertension
  - D. Peripheral pulmonary stenosis
- 37. Expiratory stridor is observed in
  - A. Croup
  - B. Foreign body in airway
  - C. Laryngeal tumour
  - D. Tracheomalacia

- 38. All of the following statements about tonsils are true, except
  - A. Tonsils produce secretory immunoglobulins
  - B. Hypertrophy of tonsils is greatest between 3 and 6 years of age
  - C. immunologic deficiency may occur rarely after removal of tonsils
  - D. Paradise criteria is used to decide on tonsillectomy
- 39. Which of the following is true about normal puberty?
  - A. Continuous release of hypothalamic gonadotropin-releasing hormone is responsible
  - B. Growth spurt is earlier in males
  - C. Androgens are responsible for bone maturation in males
  - D. Adrenarche precedes puberty onset
- 40. Which of the following is characterized by tall stature in adults, but not in childhood?
  - A. Testicular feminization
  - B. Pituitary gigantism
  - C. Klinefelter syndrome (XXY)
  - D. Marfan syndrome
- 41. What of the following statements is true about poliomyelitis?
  - A. 50% of infections are inapparent
  - B. Clinical weakness occurs when > 90% of motor neurons are destroyed
  - C. Antibodies in intestinal tract protects against central nervous system invasion
  - D. Mortality and the degree of disability are less after the age of puberty
- 42. All the following statements are true about phenylketonuria, except
  - A. Severe vomiting may be an early symptom
  - B. Congenital heart disease is seen in children of mothers with maternal phenylketonuria
  - C. Mass neonatal screening is effective to reduce morbidity
  - D. Phenylalanine should be totally exempted from diet
- 43. Which is not a common feature of Turner's syndrome and Noonan syndrome?
  - A. Webbed neck
  - B. Similar pattern of congenital heart disease
  - C. Low posterior hair line
  - D. Shield chest

- 44. Which of the antiepileptics is not effective to prevent recurrent febrile seizures?
  - A. Sodium valproate
  - B. Diazepam
  - C. Carbamazepine
  - D. Phenobarbitone
- 45. All the following statements about Diphtheria are true, except
  - A. Healthy respiratory carriers are common in endemic regions
  - B. The bacteria can remain viable in dust for months
  - C. Susceptible adult population indicates waning antitoxin levels in population who were previously immunized
  - D. Cutaneous diphtheria is usually associated with non-toxigenic strains
- 46. All the following statements about hyposplenism are true, except
  - A. Pitted RBC count < 2% indicates asplenia
  - B. The risk of post-splenectomy sepsis depends on indication for splenectomy
  - C. Splenectomy does not increase the risk of progression of HIV positive individual to AIDS
  - D. Pneumococcus is the commonest organism in post-splenectomy sepsis
- 47. Nephrocalcinosis is a feature of
  - A. Proximal renal tubular acidosis
  - B. Distal renal tubular acidosis
  - C. Hyperkalemic renal tubular acidosis
  - D. Pseudohypoaldosteronism
- 48. Treatment of Kawasaki disease in convalescent stage is
  - A. Intravenous immunoglobulin
  - B. Aspirin 3-5 mg/kg/day
  - C. Aspirin 80-100 mg/kg/day
  - D. Intravenous immunoglobulin and aspirin
- 49. Which of the following complications of severe falciparum malaria is unusual in children as compared to adults
  - A. Hypoglycemia
  - B. Severe anemia
  - C. Renal failure
  - D. Convulsions
- 50. Which of the following reactions is involved in Phase II reactions of drug biotransformation?
  - A. Oxidation
  - **B.** Reduction
  - C. Hydrolysis
  - D. Conjugation

- 51. The underlying lesion in rheumatic mitral regurgitation is due to
  - A. Retractile fibrosis of leaflets and chordae with loss of coaptation
  - B. Dilatation of the mitral annulus
  - C. Posterior mitral leaflet prolapse
  - D. Ruptured chordae
- 52. Which of the following is an intravenous P2Y12 receptor inhibitor
  - A. Ticagrelor
  - B. Clopidogrel
  - C. Prasugrel
  - D. Cangrelor
- 53. Ranolazine acts as
  - A. Inhibitor of late sodium current
  - B. If current inhibitor
  - C. Potassium channel opener
  - D. Calcium channel blocker
- 54. "Milking effect" phenomenon on coronary angiography has been described in
  - A. Critical left main stenosis
  - B. Myocardial bridge
  - C. Coronary aneurysm
  - D. Coronary arteriovennous fistula
- 55. Brain natriuretic peptide levels are increased in all of the following, except
  - A. Constrictive pericarditis.
  - B. Restrictive cardiomyopathy
  - C. Non-ischemic cardiomyopathy
  - D. Severe aortic stenosis with left ventricular dysfunction
- 56. Tracer used to assess cardiac sympathetic denervation is
  - A. 11C-meta-hydroxyephedrine
  - B. Technetium (99mTc) sestamibi
  - C. Fludeoxyglucose (18F)
  - D. None of the above
- 57. Prevalence of hypertrophic cardiomyopathy in humans is approximately
  - A. One in 50
  - B. One in 500
  - C. One in 1000
  - D. One in 1500

- 58. Left ventricular pressure tracing differs from right ventricle by shorter duration of
  - A. Isovolumetric contraction
  - B. Ejection period
  - C. Systole
  - D. Isovolumetric relaxation
- 59. The following features contribute to left ventricular outflow tract obstruction in hypertrophic cardiomyopathy, except,
  - A. Apical displacement of papillary muscles
  - B. Systolic anterior motion of mitral valve
  - C. Asymmetric septal hypertrophy
  - D. Apical hypertrophy
- 60. All of the following are true regarding the acquisition of ECG, except
  - A. A band width limitation to 50 Hz is recommended by the American Heart Association for electrocardiography in children
  - B. The standard amplifier gain for routine electrocardiography is 1000
  - C. Time is usually represented as 400 msec/cm on the horizontal scale on an FCG
  - D. The bandwidth recommended for ECG in adults is 0.05 to 150 Hz
- 61. Which of the following statements is true regarding the cardiac cycle?
  - A. Cardiologic systole extends from A2 to M1
  - B. Physiologic systole extends from the start of isovolumic contraction phase to the end of the ejection phase
  - C. Cardiologic systole starts and ends later than the physiologic systole
  - D. Cardiologic diastole includes filling phases and reduced ejection
- 62. All of the following are true regarding the hemodynamics of cardiac tamponade, except
  - A. Paradoxical pulse may be absent in patients with concomitant left ventricular dysfunction
  - B. The normal decline of systemic venous pressures on inspiration is preserved.
  - C. The left and right heart pressures are 180 degrees out of phase.
  - D. Right atrial pressure and jugular venous pressure are usually discordant in tamponade
- 63. The mechanism of action of Selexipag is
  - A. Oral prostacyclin analogue
  - B. Intravenous prostacyclin analogue
  - C. Guanylate cyclase stimulator
  - D. Prostacyclin receptor agonist

- 64. Which of the following is true regarding D-transposition of the great arteries (d-TGA)?
  - A. Infants with d-TGA and VSD are susceptible to early development of pulmonary vascular disease
  - B. Atrial switch is the most commonly performed definitive repair
  - C. The aorta arises left and anterior to the pulmonary artery
  - D. Admixture physiology is common in d-TGA
- 65. The venous drainage of right ventricle is through
  - A. Small cardiac vein
  - B. Great cardiac vein
  - C. Middle cardiac vein
  - D. Vein of Marshall.
- 66. The boundaries of the triangle of Koch do not include
  - A. Coronary sinus
  - B. Tricuspid annulus
  - C. Tendon of Todaro
  - D. Crista terminalis
- 67. Aortic pulse wave velocity is used in estimating
  - A. Endothelial dysfunction
  - B. Arterial stiffness
  - C. Severity of aortic regurgitation
  - D. Allograft vasculopathy
- 68. Cone repair is the surgical technique for
  - A. Interrupted aortic arch
  - B. Fibro muscular subaortic obstruction
  - C. Supra valvar aortic stenosis
  - D. Ebstein's anomaly of tricuspid valve
- 69. All of the following is a short RP narrow QRS tachycardia except
  - A. Orthodromic AVRT
  - B. Typical AVNRT
  - C. Junctional ectopic tachycardia
  - D. Permanent form of junctional reciprocating tachycardia
- 70. The following statements are true of sarcoid heart disease, except
  - A. Results in left ventricular dysfunction
  - B. Complete heart block is a dominant feature
  - C. Pleomorphic ventricular tachycardia is frequent
  - D. Characteristic absence of delayed enhancement on MRI

- 71. RACHS scoring system is used in surgical risk stratification of
  - A. Aortic aneurysm.
  - B. Aortic valve replacement
  - C. Congenital heart surgery
  - D. Heart and lung transplantation
- 72. All of the following statements is true regarding coarctation of aorta, except
  - A. Only 25% of untreated patients survive their 5th decade
  - B. Pressure gradient of 20 mm Hg across the segment is class I indication for treatment
  - C. Patients with Turner's syndrome has higher risk of aortic dissection
  - D. Balloon angioplasty is the treatment of choice in adults with coarctation
- 73. All of the following statements is true regarding the effect of alcohol on cardiovascular diseases, except
  - A. Alcohol intake is associated with increase in HDL levels
  - B. Alcohol promotes fibrinolytic activity
  - C. Alcohol promotes platelet aggregation
  - D. Alcohol reduces hsCRP
- 74. Total cavo-pulmonary connection is the preferred surgical treatment for
  - A. Tricuspid atresia with pulmonary stenosis
  - B. Corrected transposition of great arteries
  - C. Isolated ventricular inversion
  - D. Scimitar syndrome
- 75. A 25-year old male presents to OPD with a regular narrow QRS tachycardia at a rate of 80bpm, with P waves following each QRS. During carotid sinus massage, the tachycardia converts to LBBB morphology at a rate of 165bpm. The most likely diagnosis is
  - A. AVNRT
  - B. Orthodromic AVRT using a left-sided bypass tract
  - C. VT with 1:1 VA conduction
  - D. AVNRT & VT co-existing
- 76. The left atrial pressure trace and pressure likely in the presence of S3
  - A. Prominent V wave and elevated LA mean pressures
  - B. Prominent V wave and normal LA mean pressure
  - C. Prominent A wave and normal LA mean pressure
  - D. Prominent A wave and elevated LA mean pressures

- 77. Which clinical sign is suggestive of elevated pulmonary wedge pressure in mitral stenosis?
  - A. Loud S1
  - B. Loud opening snap (OS)
  - C. Short A2-OS interval
  - D. Mid-diastolic Murmur
- 78. "Plucked chicken" appearance of the skin in the axillae and skinfolds of a young person is characteristic of
  - A. Type III hyperlipoproteinemia
  - B. Type II hyperlipoproteinemia
  - C. Pseudoxanthoma elasticum
  - D. Abetalipoproteinemia
- 79. Which of these suggest RV Hypertrophy in the ECG of a neonate 7 days old?
  - A. R/S ratio in V1 > 1
  - B. Right axis deviation
  - C. S waves in V6
  - D. Upright T wave in V1
- 80. Regarding cardiac device infections, the following are true except
  - A. All-cause 12-weeks mortality is as high as 35%
  - B. Mortality is high with methicillin-resistant staphylococcus aureus
  - C. FDG PET- CT can accurately localize the site and extent of the pocket infection
  - D. FDG PET-CT is highly reliable for lead infection or vegetation evaluation
- 81. Which among the following is not an indication for AICD implantation
  - A. Survivors of cardiac arrest secondary to ventricular fibrillation (VF)
  - B. Structural heart disease and spontaneous sustained ventricular tachycardia (VT) which is hemodynamically stable
  - C. Incessant VT or VF
  - D. Nonischemic dilated cardiomyopathy in patients who have an left ventricular ejection fraction ≤35% and are in NYHA functional class II or III
- 82. Loss of y descent in jugular venous pulse is a characteristic feature of
  - A. Constrictive pericarditis
  - B. Cardiac tamponade
  - C. Restrictive cardiomyopathy
  - D. Tricuspid stenosis

- 83. On cardiac catheterization of a patient with mitral stenosis, the mean gradient between pulmonary capillary wedge pressure and left ventricular end-diastolic pressure was16 mmHg at a heart rate of 60 bpm. The cardiac output by the Fick method was 4.0 L/min. The calculated mitral valve area is approximately
  - A.  $0.5 \, \text{cm}^2$
  - B. 1.0 cm<sup>2</sup>
  - C. 1.5 cm<sup>2</sup>
  - D. 2.0 cm<sup>2</sup>
- 84. The type of VSD which will have the highest incidence of surgically induced atrioventricular block during closure
  - A. Perimembraneous VSD
  - B. Outflow VSD
  - C. Mid-muscular VSD
  - D. Apical muscular VSD
- 85. The following factors contribute to failure of Fontan repair, except
  - A. Progressive right ventricular outflow obstruction
  - B. Atrioventricular valve regurgitation
  - C. Pulmonary arteriovenous fistula
  - D. Left ventricular dysfunction
- 86. Contraindications to percutaneous balloon mitral valvotomy include all, except
  - A. Bilateral calcific mitral valve commissure
  - B. Left atrial body clot
  - C. Subvalvar disease
  - D. Moderate or more mitral regurgitation
- 87. The recommended period of oral anticoagulant therapy in a patient who had a bioprosthetic valve implantation in sinus rhythm after surgery is
  - A. 2 months
  - B. 3 months
  - C. 6 months
  - D. 12 months in rheumatic etiology
- 88. The following coronary imaging modalities conveys the histological tissue characteristics, except
  - A. Optical coherence tomography
  - B. Near-infrared spectroscopy
  - C. Virtual histology intravascular ultrasound
  - D. Magnetic resonance imaging

- 89. All the following statements about aortic dissection are true, except
  - A. Aortic regurgitation occurs in up to 70% of Type A (Stanford) dissections
  - B. Left coronary involvement in the dissection is more common than right coronary artery involvement
  - C. Majority of type B (Stanford) aortic dissections can be medically managed initially
  - D. Pulse deficit is more common in ascending aortic dissections
- 90. Which of the following was evaluated in SYNTAX trial?
  - A. Role of ICD vs antiarrhythmics in postmyocardial infarction and left ventricular dysfunction
  - B. Role of CRT in heart failure
  - C. Role of renal denervation
  - D. Role of PCI vs CABG in coronary artery disease
- 91. Which cardiac condition is not associated with left axis deviation?
  - A. AV canal defects
  - B. Single ventricle
  - C. Tricuspid atresia
  - D. Ebstein's anomaly
- 92. Which feature is not seen in total anomolous pulmonary venous connection?
  - A. Continuous murmur
  - B. 'Figure of 8 appearance' on chest x-ray in infra-cardiac type of TAPVC
  - C. Right axis deviation on the ECG
  - D. Similar oxygen saturation in all the chambers
- 93. All of the following are expected to occur in ECG during exercise, except
  - A. PR interval shortens
  - B. QT Interval shortens
  - C. Ramplitude decreases
  - D. QRS duration shortens
- 94. All the following statements about hemodynamic changes during pregnancy are true, except
  - A. Heart rate increases by 10-20%
  - B. Blood volume increases by 30-40%
  - C. Arterial blood pressure increases by 10-20%
  - D. Cardiac output increases by 30%
- 95. Which of the following modality is best useful to detect infiltrative cardiomyopathy related to Hemochromatosis?
  - A. Multi-slice CT
  - B. 3D echo

- C. Cardiac MRI
- D. Radionuclide angiography
- 96. The following statements regarding tetralogy of Fallot (TOF) are true, except
  - A. Left axis deviation on the ECG suggests associated AV canal defect
  - B. The right ventricular outflow tract gradient is proportional to the severity of the disease
  - C. Jugular venous pressure is usually not elevated in children with TOF
  - D. Good surgical outcome is primarily decided by the pulmonary anatomy
- 97. Immunohistochemical stains for anti-CD68 antigens are used to detect which of the following cell types in myocarditis
  - A. Neutrophils
  - B. T-lymphocytes
  - C. B-Lymphocytes
  - D. Macrophages
- 98. Which of the following conditions can have the oxygen saturation of blood in pulmonary artery higher than that in the aorta?
  - A. Corrected transposition of great arteries
  - B. Infracardiac TAPVC with patent foramen ovale
  - C. Taussig Bing anomaly
  - D. Right pulmonary artery to left atrial fistula
- 99. SCN5A gene mutations are involved in all the following conditions, except
  - A. Sick sinus syndrome
  - B. Familial atrial fibrillation
  - C. Progressive cardiac conduction defect
  - D. Short QT syndrome
- 100. Pressure half time across a stenotic mitral valve is 250ms. What is the mitral valve area?
  - A. 0.46 cm<sup>2</sup>
  - B. 0.88 cm<sup>2</sup>
  - C. 1.26cm<sup>2</sup>
  - D. 1.52cm<sup>2</sup>

Medicine						Ped	liatrics		Cardiology				
1	С	26	D		1	С	26	D	51	Α	76	Α	
2	D	27	С		2	В	27	В	52	D	77	С	
3	Α	28	В		3	С	28	С	53	Α	78	С	
4	D	29	В		4	Α	29	D	54	В	79	D	
5	D	30	D		5	D	30	D	55	Α	80	D	
6	Α	31	Α		6	С	31	С	56	Α	81	С	
7	В	32	С		7	В	32	В	57	В	82	В	
8	С	33	В		8	С	33	С	58	В	83	В	
9	D	34	D		9	C	34	С	59	D	84	Α	
10	В	35	Α		10	D	35	Α	60	Α	85	Α	
11	D	36	В		11	D	36	Α	61	С	86	С	
12	D	37	В		12	Α	37	D	62	D	87	В	
13	В	38	Α		13	С	38	С	63	D	88	D	
14	D	39	D		14	С	39	D	64	Α	89	В	
15	Α	40	D	T	15	В	40	Α	65	Α	90	D	
16	D	41	D		16	С	41	С	66	D	91	D	
17	С	42	В		17	В	42	D	67	В	92	В	
18	D	43	С		18	В	43	В	68	D	93	С	
19	В	44	В		19	С	44	C	69	D	94	С	
20	С	45	В		20	Α	45	D	70	D	95	С	
21	В	46	В		21	Α	46	Α	71	С	96	В	
22	D	47	Α		22	Α	47	В	72	D	97	D	
23	D	48	С		23	Α	48	В	73	С	98	С	
24	D	49	Α		24	D	49	С	74	Α	99	D	
25	D	50	В		25	В	50	D	75	В	100	В	

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