



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, तिरुवनंतपुरम् -11
SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY,
THIRUVANANTHAPURAM—695 011

ENTRANCE EXAMINATION: ACADEMIC SESSION JANUARY 2020

PROGRAM: M Ch (CVTS)

Time: 90 minutes

Max. Marks: 100

(Select the most appropriate answer)
(There are no negative marks for wrong answers)

1. What type of a mechanical valve is ttk Chitra valve?
 - a) Ball & cage
 - b) Bileaflet
 - c) Tilting disc
 - d) Bioprosthetic
2. Most common type of atrial septal defect is
 - a) Primum
 - b) Secundum
 - c) Sinus venosus
 - d) Coronary sinus
3. Blalock-Taussig shunt was first done for which condition?
 - a) Transposition of great arteries
 - b) Tetralogy of Fallot
 - c) Tricuspid atresia
 - d) Truncus Arteriosus
4. Which heart valve has only two leaflets normally?
 - a) Tricuspid
 - b) Pulmonary
 - c) Mitral
 - d) aortic
5. Neurogenic tumors are commonly seen (in)
 - a) intra pericardial
 - b) anterior mediastinum
 - c) superior mediastinum
 - d) posterior mediastinum
6. Which conduit used in CABG has the best long term patency rate?
 - a) Internal mammary artery
 - b) Saphenous vein
 - c) Radial artery
 - d) Gastro epiploic artery

7. Sialolithiasis most commonly affects

- a) Parotid
- b) Submandibular
- c) Sublingual
- d) Minor salivary glands

8. Clark level is to classify

- a) Squamous cell carcinoma
- b) Basal cell carcinoma
- c) Malignant melanoma
- d) Transitional cell carcinoma

9. Injuries in which zone of the neck warrant immediate surgical exploration?

- a) Zone 1
- b) Zone 2
- c) Zone 3
- d) All of the above

10. Which of the following is NOT a direct branch of Coeliac trunk?

- a) Left gastric artery
- b) Right gastric artery
- c) Common hepatic artery
- d) Splenic artery

11. Which is NOT an absorbable suture?

- a) Polyglyconate
- b) Polydioxanone
- c) Polygalactone
- d) Polypropylene

12. Most frequently injured intraabdominal organ in blunt trauma

- a) Liver
- b) Spleen
- c) Small intestine
- d) Kidneys

13. Burns confined to the epidermis

- a) First degree
- b) Second degree
- c) Third degree
- d) Fourth degree

14. BI-RADS 2 is

- a) Benign
- b) Probably benign
- c) Suspicious abnormality
- d) Malignant

15. Most common functioning tumour of pancreas

- a) Insulinoma
- b) Glucagonoma
- c) VIPoma
- d) Somatostatinoma

16. Which of the following is FALSE about Pseudocyst of Pancreas?

- a) They are localized collection of Pancreatic juice
- b) Wall composed of fibrous and granulation tissue
- c) Wall has an epithelial lining
- d) Commonest cystic lesions of pancreas

17. Shouldice clinic for hernia repair is in

- a) UK
- b) USA
- c) Canada
- d) South Africa

18. Which of the following is NOT removed in radical neck dissection?

- a) Internal carotid artery
- b) Internal jugular vein
- c) Sternocleido mastoid muscle
- d) Spinal accessory nerve

19. Most common mode of spread of papillary carcinoma thyroid

- a) Haematogenous
- b) Lymphatic
- c) Inthyroidal
- d) Neural

20. The first human to human heart transplantation was done by

- a) Norman Shumway
- b) Denton Cooley
- c) Michael deBakey
- d) Christian Barnard

21. Applicability of hypothermia for heart surgery was first suggested by

- a) Cooley
- b) deBakey
- c) Bigelow
- d) Barnard

22. P wave in ECG denotes

- a) Atrial contraction
- b) Atrial relaxation
- c) Ventricular contraction
- d) Ventricular relaxation

23. Which of the following is a semilunar valve?

- a) Mitral valve
- b) Tricuspid valve
- c) Bicuspid valve
- d) Aortic valve

24. Which of the following is NOT a branch of Right Coronary artery?

- a) SA nodal artery
- b) Acute marginal artery
- c) Posterior descending artery
- d) Obtuse marginal artery

25. Which of the following is NOT a left to right shunt?

- a) ASD
- b) VSD
- c) PDA
- d) TOF

26. Internal mammary artery is a branch of

- a) Aorta
- b) Subclavian artery
- c) Vertebral artery
- d) Thyrocervical trunk

27. Largest valve

- a) Mitral valve
- b) Tricuspid valve
- c) Aortic valve
- d) Pulmonary valve

28. "A" wave in central venous pressure tracing is due to

- a) atrial contraction
- b) atrial filling
- c) tricuspid valve moving to atrium
- d) atrial relaxation

29. Which of the following is an antiplatelet drug?

- a) Heparin
- b) Warfarin
- c) Aspirin
- d) Ramipril

30. Concentric hypertrophy of left ventricle occurs in

- a) Aortic regurgitation
- b) Aortic stenosis
- c) Mitral stenosis
- d) Mitral regurgitation

31. Right atrium is dilated in

- a) ASD
- b) VSD
- c) PDA
- d) TOF

32. Perthe's test is done to find out

- a) Sapheno-femoral incompetency
- b) Sapheno-popliteal incompetency
- c) Site of perforators
- d) Deep vein thrombosis

33. Drug of choice for anaphylactic shock is

- a) Histamine
- b) Adrenaline
- c) Promethazine
- d) Chlorpheniramine

34. Intussusception is caused by

- a) Submucosal Lipoma
- b) Subserosal Lipoma
- c) Retroperitoneal lipoma
- d) Intra peritoneal lipoma

35. Superior thyroid artery is a branch of

- a) Common carotid artery
- b) Internal carotid artery
- c) External Carotid artery
- d) Thyrocervical trunk

36. Following is not seen in Graves disease

- a) Proptosis
- b) Pretibial myxedema
- c) Proximal myopathy
- d) Cardiac failure

37. Duodenal ulcer is commonly seen in which part of duodenum

- a) First part
- b) Second part
- c) Third part
- d) Fourth part

38. Which of the following is a true diverticulum?

- a) Sigmoid diverticuli
- b) Meckel's diverticuli
- c) Paratracheal diverticuli
- d) Laryngeal diverticuli

39. What is the operation for congenital hypertrophic pyloric stenosis called?
- a) Hartmann
 - b) Whipple
 - c) Heller
 - d) Ramstedt
40. Caterpillar hump is an anomaly associated with
- a) Cystic artery
 - b) Hepatic artery
 - c) Celiac artery
 - d) Gastroduodenal artery
41. Hypochloremic alkalosis in pyloric stenosis is treated by
- a) Normal saline
 - b) Ringer lactate
 - c) Isotonic saline with potassium
 - d) Double strength normal saline
42. Factors associated with adenocarcinoma esophagus are following EXCEPT
- a) Barrett's esophagus
 - b) Obesity
 - c) Reflux oesophagitis
 - d) Oesophageal web
43. Which of the following is a midline cystic swelling?
- a) Thyroglossal Cyst
 - b) Branchial Cyst
 - c) Sebaceous cyst
 - d) Dental cyst
44. Which is the most acceptable surgical repair for coarctation of aorta in a neonate
- a) Resection & end to end anastomosis
 - b) Interposition graft
 - c) Subclavian patch plasty
 - d) Prosthetic patch plasty
45. The classic Beck's triad for pericardial effusion includes all EXCEPT
- a) Hypotension
 - b) Raised central venous pressure
 - c) Muffled heart sounds
 - d) Ventricular ectopics
46. All are vasoconstrictors EXCEPT
- a) Milrinone
 - b) Adrenaline
 - c) Vasopressin
 - d) Noradrenaline

47. Which of the following is a true Vascular ring?

- a) Double aortic arch
- b) Vascular sling
- c) Cervical arch
- d) Lt arch with aberrant Rt subclavian artery

48. In a neonate with patent ductus arteriosus the choice of investigation is

- a) Cardiac catheterization
- b) Chest X-ray
- c) Electrocardiogram
- d) 2D- Echocardiogram

49. The Atrial Septal Defect most commonly associated with anomalous pulmonary venous drainage

- a) Ostium secundum ASD
- b) Sinus Venosus ASD
- c) Primum ASD
- d) Coronary sinus ASD

50. Which of the following is a common mixing lesion?

- a) TOF
- b) VSD
- c) TGA
- d) Tricuspid atresia

51. The direction of shunt in a large ASD is determined by

- a) Size of ASD
- b) The systemic oxygen saturation
- c) Presence of associated VSD
- d) The compliance of Right and Left ventricle

52. "Snow man" appearance on chest Xray is seen in?

- a) Cor triatriatum
- b) Coarctation of Aorta
- c) Obstructed supra cardiac TAPVC
- d) TOF

53. Which of the following is not associated with TOF?

- a) Right aortic arch
- b) Absent Left pulmonary artery
- c) Pulmonary hypertension
- d) Anomalous origin of LAD from right coronary

54. What is a Taussig Bing anomaly?

- a) DORV with subpulmonic VSD
- b) DORV with Subaortic VSD
- c) TGA with VSD
- d) Tricuspid atresia with restrictive VSD

55. The chest X-Ray in Tetralogy of Fallot is classically described as

- a) Egg on side appearance
- b) Snow-man appearance
- c) Boot Shaped heart
- d) Pear shaped heart

56. Stage 1 procedure for Hypoplastic left heart syndrome is called

- a) Norwood procedure
- b) BT shunt
- c) Cone repair
- d) Bidirectional Glenn Procedure

57. Which of the following statements is true?

- a) An elective hernia repair would have an infection rate of 1% or less
- b) A clean operation has an infection rate of less than 5%
- c) A contaminated operation is one in which there is presence of frank pus or gross soiling, e.g. perforated large bowel
- d) A contaminated operation has an infection rate of 15–20%

58. What is the most common infective agent of an implanted prosthesis, e.g. heart valve or prosthetic joint?

- a) Bacteroides
- b) Pseudomonas
- c) Staphylococcus aureus
- d) Streptococcus faecalis

59. Why does pulmonary collapse occur postoperatively?

- a) Bronchiolar oedema results in distal airway collapse
- b) Mucus plugging of bronchi and bronchioles results in distal airway collapse
- c) Alveolar oedema results in localized airway collapse
- d) Mucus plugging of alveoli results in localized airway collapse

60. Which of the following types of tumour seldom produce secondary deposits?

- a) Tumours of the gastrointestinal tract
- b) Tumours of the urinary tract
- c) Skin tumours
- d) Tumours of the central nervous system

61. Which of the following tumours is α -fetoprotein a marker for?

- a) Small cell carcinoma of the lung
- b) Bronchogenic carcinoma of the lung
- c) Hodgkin's lymphoma
- d) Testicular teratoma

62. Which of the following are markers for ovarian carcinoma?

- a) Ca 15.3
- b) Ca 19.9
- c) Ca 125
- d) Ca 27.29

63. Which of the following statements are correct regarding carcinoma of the lung?
- Half of the tumours arise in the main bronchi
 - 25% are visible at bronchoscopy
 - Squamous cell carcinoma often arises at the peripheries of the lung
 - Adenocarcinoma often arises in the main bronchi
64. What percentage of lung carcinomas are squamous cell carcinoma?
- 40%
 - 60%
 - 70%
 - 80%
65. How soon after the onset of periumbilical pain does the appendicitis pain usually shift to the right iliac fossa?
- 2 hours
 - 6 hours
 - 12 hours
 - 24 hours
66. What percentage of patients with ulcerative colitis of 20 years' duration will have malignant change?
- 1%
 - 10%
 - 20%
 - 30%
67. How long can the brain survive ischaemic conditions before it is irreversibly damaged? (At Normal body temperature)
- 1 minute
 - 3 minutes
 - 7 minutes
 - 9 minutes
68. What is an autograft?
- Transplant from one part of the body to another, e.g. skin graft
 - Transplant between members of the same species, e.g. human to human
 - Transplant between identical twins
 - Transplant between members of different species, e.g. pig to human
69. When does ventriculoseptal defect usually occur following myocardial infarction?
- Within minutes of the myocardial infarction
 - Within 1 day of myocardial infarction
 - 1 week after myocardial infarction
 - 1 month after myocardial infarction
70. In healthy ventricles, the force of contraction:
- Decreases with sympathetic stimulation.
 - Increases with increased end-diastolic volume within physiological limits.
 - Does not influence the cardiac output.
 - Is always the same.

71. At what temperature should transplant organs be stored?
- 0° K
 - 0°C
 - 2°C
 - 4°C
72. Cardioplegia solution:
- helps preserve ATP stores and decreases intramyocardial acidosis
 - provides K ions for myocardial muscle contraction
 - causes neuronal damage
 - causes dysrhythmia and ischemia because it is cold
73. Which is NOT a feature of mitral stenosis?
- Pulmonary hypertension
 - Increased left atrial pressure
 - Ventricular Hypertrophy
 - Embolisation of clots
74. Most common congenital anomaly associated with coarctation of aorta is
- Ventricular septal defect
 - Atrial septal defect
 - Bicuspid aortic valve
 - Patent ductus arteriosus
75. Which is NOT an indication for Aortic Valve Replacement in aortic stenosis
- Syncope
 - Congestive heart failure
 - Angina
 - Trans valvar gradient of 35 mm of Hg across the aortic valve without symptoms.
76. True statement about malignant cardiac tumors is
- Sarcomas are the most common primary malignancy
 - Adjuvant chemotherapy and irradiation are efficacious in prolonging survival
 - Intra atrial extension of renal neoplasms is a contraindication for surgery
 - Constrictive physiology is an indication for operation
77. Most frequent complication of intra aortic balloon pump is
- Limb ischaemia
 - Aortic thrombosis
 - Arrhythmias
 - Stroke
78. Heparin was discovered by
- Jay McLean and William Henry Howell in 1916
 - Henry Souttar in 1925
 - John Heysham Gibbon in 1953
 - Russell Brock in 1948
79. All are types of diaphragmatic hernias EXCEPT?
- Morgagni
 - Richter
 - Boschdalek
 - Sliding

80. The best time to give prophylactic antibiotics before elective surgery is

- a) On the night before surgery
- b) At the time of induction of anesthesia
- c) At the time of skin incision
- d) In the ward just before the patient is shifted to the operation theatre

81. Distant metastasis from prostatic carcinoma is commonest in

- a) Liver
- b) Bone
- c) Brain
- d) Lungs

82. Which of the following statements about carcinoma colon is FALSE?

- a) Right colonic cancers present with features of anemia.
- b) Left colonic cancers present with rectal bleeding and obstructive symptoms
- c) Intravenous urography (IVU) should be routinely done
- d) Synchronous cancers occur in 5 per cent

83. Wolffe graft is also known as:

- a) Full thickness graft
- b) Partial thickness graft
- c) Split thickness graft
- d) Composite graft

84. If elective splenectomy is planned, vaccination against pneumococcus, meningococcus should be administered at least _____ before surgery

- a) 1 week
- b) 2 week
- c) 3 week
- d) 4 week

85. All the phases of wound healing EXCEPT

- a) Proliferation
- b) Inflammation
- c) Remodeling
- d) Modeling

86. Which is NOT a part of the RANSON'S scoring system to assess the severity of acute pancreatitis at admission

- a) Serum LDH
- b) Base deficit > 4 mmol/L
- c) AST > 250 Sigma Frankel unit percent
- d) Age > 55 years

87.Regarding Focal Nodular Hyperplasia which is NOT true

- a) It is the most common benign liver tumors
- b) Has female gender predilection
- c) Cut surface shows a central stellate scar more often
- d) Shows no malignant transformation

88.About hydatid disease of the liver, which is NOT true

- a) Caused by E. granulosus
- b) Dogs are the accidental intermediate hosts
- c) Ectocyst is the compressed host tissue
- d) US is the preferred first-line imaging method for hydatid liver cyst visualization

89.Which of the following statements is TRUE regarding Thymoma?

- a) Most commonly located in the middle mediastinum
- b) Most common histology is epithelial type
- c) Masaoka staging is used
- d) Fine needle aspiration cytology is contraindicated

90.All are ECG findings in left atrial hypertrophy EXCEPT

- a) P mitrale
- b) P pulmonale
- c) Bifid P wave
- d) Total P wave duration >110ms in lead II

91.All of the following are true EXCEPT

- a) The predominant blood supply of ventricular septum is from right posterior descending artery
- b) Sinus Node artery arises from right coronary artery in 55-65% cases
- c) Kugel artery provides blood supply to the AV node in 40% of normal heart
- d) Septal arteries arises almost perpendicularly from left anterior descending artery

92. Father of surgical cardiopulmonary bypass is

- a) John H Gibbon
- b) Christiaan Bernard
- c) C Walton Lillehei
- d) Norman Shumway

93.All are true EXCEPT

- a) Myxomas are the most common primary cardiac tumors
- b) 95% of cardiac tumors are primary and rest metastatic
- c) Most of the myxomas are located in left atrium
- d) Familial myxomas are associated with CARNEY Complex

94. All of the following are true for Mitral stenosis EXCEPT

- a) Loud S1
- b) Atrial fibrillation occurs in approximately 40% of cases
- c) Opening snap is found in all cases
- d) Rheumatic fever is the most common cause of mitral stenosis in India

95. All of the following are true for cervico axillary canal EXCEPT

- a) Second rib forms the inferior border
- b) Clavicle forms the superior border
- c) Costoclavicular ligament forms the medial border
- d) Brachial plexus, Subclavian artery and vein passes through cervicoaxillary canal

96. All of the following are true for acute aortic dissection EXCEPT

- a) 20-40% patients of Marfan syndrome develops acute aortic dissection
- b) Use of Cocaine is associated with higher incidence of acute aortic dissection
- c) The Stanford and DeBakey classification is based on the site of intimal tear
- d) A bicuspid aortic valve is frequently associated with acute aortic dissection

97. Which organism is responsible for the development of Rheumatic fever ?

- a) Coagulase negative Staphylococci
- b) Group A Streptococci
- c) Methicillin resistant Staphylococci
- d) Group B Streptococci

98. Multiple endocrine neoplasia (MEN) type I does NOT involve

- a) Pituitary
- b) parathyroid
- c) adrenal
- d) Pancreas

99. Complete AV septal defects are commonly associated with which genetic disorder

- a) Trisomy 13
- b) Trisomy 18
- c) Trisomy 21
- d) 46XXY

100. Who is likely to have the best scar cosmetically

- a) neonates
- b) infants
- c) young adults
- d) elderly

