

M.Ch C.T Surgery-Final key

1 Which of the following is/are not independent risk factors for the development of coronary and peripheral atherosclerosis

A) Cigarette smoking

B) Hypercoagulable conditions

C) Hypercholesterolemia

D) Diabetes mellitus

2 Which of the following is the most common symptom of thoracic outlet syndrome

A) Arm pain with exercise

B) Pain and Paresthesia in the extremity

C) Swelling of the whole arm

D) Arm discoloration and swelling with exercise

3 What is the most common cause of an acquired hypercoagulable state?

A) Smoking

B) Warfarin

C) Oral contraceptives

D) Antiphospholipid antibody (lupus anticoagulant)

4 What is the most common cause of a congenital hypercoagulable disorder?

A) Protein S deficiency

B) Protein C deficiency

C) Activated protein C resistance

D) Homocysteinemia

5 In a low resistance arterial vascular system, at what percent diameter reduction, does a stenosis become self – limiting?

A) 70%

B) 40%

C) 50%

D) 80%

6 Which of the following is the most common manifestation of an abdominal aortic aneurysm?

A) Incidental finding on CT scan or physical exam

B) Back pain/abdominal pain

C) Acute rupture

D) Peripheral embolization

7 Which of the following occurs most commonly after successful repair of an abdominal aortic aneurysm in a 58 year old man?

A) Sexual dysfunction

B) Ischemic colitis

C) Renal failure

D) Leg paralysis

8 Which of the following is the most common site for atherosclerotic occlusion in lower extremities?

A) Aortic bifurcation

B) Common femoral artery

C) Proximal superficial femoral artery

D) Distal superficial femoral artery

9 Most arterial emboli originate from which of the following sites?

- A) Cardiac valves
- B) Left atrium**
- C) Left ventricle
- D) Thoracic aorta

10 Arterial emboli of cardiac origin most frequently produce occlusion of which one of the following?

- A) Cerebral vessels
- B) Common femoral artery**
- C) Superficial femoral artery
- D) Popliteal artery

11 After undergoing brachial artery catheterization for coronary angiography, a patient complains of hand numbness and an absent radial pulse. What is the appropriate management?

- A) Administration of systemic vasodilators
- B) Percutaneous balloon dilatation of brachial artery
- C) Expose brachial artery and directly repair injured segment**
- D) Arteriography to determine presence of thrombus at catheterization site

12 Which is the most common primary tumor of anterior mediastinum in adults?

- A) Thyroid goiter
- B) Thymoma**
- C) Lymphoma
- D) Neurogenic tumor

13 A patient on follow-up for successful treatment of Squamous Cell Cancer of head and neck is found to have a new solitary Pulmonary nodule. Which of the following is the most likely diagnosis?

- A) Solitary metastasis
- B) Granuloma
- C) Primary lung carcinoma**
- D) Benign lung tumor

14 Which of the following is TRUE of Atrial Septal Defect?

- A) The magnitude of the shunt is determined by the difference in compliance between the ventricles**
- B) Left Ventricle is frequently enlarged
- C) It should be surgically corrected before 1 year of age to avoid development of pulmonary hypertension
- D) Surgical closure under Cardiopulmonary bypass is the only option for closure

15 Which of the following is FALSE of about Tetralogy of Fallot repair?

- A) Repair of aortic over-ride**
- B) Ventricular Septal Defect closure
- C) Division of muscle bundles in Right Ventricular out flow tract
- D) Patch augmentation of pulmonary annulus

16 TRUE regarding Patent Ductus Arteriosus?

- A) Produce left to right shunt at great artery level**
- B) Irreversible increase in pulmonary vascular resistance only occurs in association with another defect
- C) Because of low cardiac output, children with PDA tend to have narrow pulse pressure
- D) Indomethacin can be used to close PDA in term infants, but not in premature babies

17 FALSE regarding aortic regurgitation (AR)?

- A) Discrete subaortic stenosis or Ventricular Septal defect may be responsible for producing AR
- B) Symptoms are those of congestive heart failure
- C) Echo accurately estimates the degree of regurgitation and chamber size
- D) Because effective cardiac output is reduced, pulses are weak and pulse pressure is narrow**

18 FALSE regarding echocardiography for evaluation of congenital heart disease

- A) It is the most accurate method by which to determine intra –cardiac anatomy
- B) It very precisely defines pulmonary artery anatomy**
- C) It may indicate if right ventricular pressure is at or well below systemic pressure
- D) It may indicate gradient across a valve

19 Least common cause for seizure following Aortic Valve Replacement for calcific aortic stenosis

- A) Air embolism
- B) Calcium embolization
- C) Emboli from Left atrium thrombus**
- D) Emboli from aortic atherosclerosis

20 Which is the most common primary cardiac neoplasm

- A) Myxoma**
- B) Rhabdomyoma
- C) Sarcoma
- D) Metastatic sarcoma

21 Which cardiac chamber is most frequently injured by penetrating trauma?

- A) Left ventricle
- B) Right ventricle**
- C) Left atrium
- D) Right atrium

22 Which is not a physiological effect of intra – aortic balloon pump?

- A) Increased cardiac after load**
- B) Increased coronary blood flow
- C) Decreased Left Ventricular end diastolic pressure
- D) Decreased left ventricular preload

23 Which is not an indication for operative intervention to correct aortic insufficiency

- A) Progressive symptoms
- B) Loudness and length of diastolic murmur**
- C) Increasing left ventricle size
- D) Magnitude of regurgitation

24 Aortic stenosis presenting in adults may results from which of the following

- A) Congenital bicuspid aortic valve**
- B) Marfan syndrome
- C) Syphilis
- D) Bacterial endocarditis

25 A patient developed angina 5 years after Coronary Artery Bypass Grafting. Angiography most likely reveals which of the following?

- A) Vein graft thrombus
- B) Progressive atherosclerosis in vein graft
- C) Progressive atherosclerosis in coronary arteries**
- D) A dominant right coronary system

26 Indication for abdominal aortic aneurysm repair in men? Diameter greater than

- A) 4.5 cm
- B) 4.0 cm
- C) 5.5 cm**
- D) 5.0 cm

27 The left anterior descending artery is a branch of?

- A) Left main coronary artery**
- B) Right coronary artery
- C) Circumflex artery
- D) Posterior descending artery

28 What is the commonest pulmonary valve morphology in tetralogy of Fallot?

- A) Monocuspid
- B) Bicuspid**
- C) Tricuspid
- D) Quadricuspid

29 What is the relation of the conduction system with respect to VSD of Tetralogy of Fallot?

- A) Postero –inferiorly**
- B) Antero-superiorly
- C) Lateral
- D) No relation

30 What is the incidence of right aortic arch in Tetralogy of Fallot?

- A) 15%
- B) 30%
- C) 25%**
- D) 50%

31 The classical location of Ventricular Septal Defect in Tetralogy of Fallot is

- A) Subpulmonic
- B) Subaortic**
- C) Perimembranous
- D) Muscular

32 All the following indices are used in the pre-operative evaluation of Tetralogy of Fallot **except?**

- A) Nakata index
- B) McGoon ratio
- C) Kirklin score
- D) Taussig score**

33 The classical chest X ray appearance of heart in Tetralogy of Fallot is?

- A) Egg on side
- B) Couer en sabot**
- C) Owl's eye
- D) Figure of eight/snowman

34 Eisenmengerisation is possible in all of the following **except**?

- A) Ventricular septal defect
- B) Patent ductus arteriosus
- C) Tetralogy of Fallot**
- D) Aorto Pulmonary Window

35 Jugular Venous Pulse is raised in all **except**?

- A) Ebstein anomaly
- B) Tricuspid atresia
- C) Tetralogy of Fallot**
- D) Atrial septal defect in CCF

36 The chamber not enlarged in Ventricular septal defect is?

- A) Left ventricle
- B) Right ventricle
- C) Left atrium
- D) Right atrium**

37 Differential cyanosis is seen in

- A) PDA with bidirectional shunt**
- B) ASD with bidirectional shunt
- C) VSD with bidirectional shunt
- D) Tetralogy of Fallot

38 The Sino Atrial node is commonly supplied by branches of

- A) Left coronary artery
- B) Left circumflex artery
- C) Left main stem artery
- D) Right coronary artery**

39 The artery which runs in the anterior inter-ventricular groove is?

- A) Left anterior descending artery**
- B) Posterior descending artery
- C) Obtuse marginal artery
- D) Acute marginal artery

40 All are used in the treatment of mitral stenosis **except**?

- A) Closed mitral valvotomy
- B) Balloon mitral valvotomy
- C) Mitral valve replacement
- D) Trisupid annuloplasty**

41 The chamber protected in isolated mitral stenosis is?

- A) Left atrium
- B) Right Ventricle
- C) Right atrium
- D) Left ventricle**

42 Critical mitral stenosis is defined as?

- A) MVOA<0.6 cm²**
- B) MVOA<1 cm²
- C) Mean gradient<8
- D) PASP>70mmHg

43 All are procedures for tricuspid annuloplasty **except**?

- A) DeVegas annuloplasty
- B) Kays annuloplasty
- C) Periguard annuloplasty
- D) Tricuspid valve replacement**

44 Coronary sinus drains into?

- A) Right ventricle
- B) Right atrium**
- C) Left atrium
- D) Pulmonary artery

45 All are conduits for CABG **except**?

- A) Left internal mammary artery
- B) Right internal mammary artery
- C) Right radial artery
- D) Profunda femoris artery**

46 Left internal mammary artery is a branch of?

- A) Left carotid artery
- B) Left subclavian artery**
- C) Arch of aorta
- D) Innominate artery

47 All are branches of left internal mammary artery **except**?

- A) Superior epigastric artery
- B) Musculophrenic artery
- C) Pericardio-phrenic artery
- D) Inferior epigastric artery**

48 All are components of NYHA **except**?

- A) Dyspnoea
- B) Fatigue
- C) Angina
- D) Syncope**

49 The classical triad in aortic stenosis comprises of all **except**?

- A) Syncope
- B) Fatigue**
- C) Dyspnoea
- D) Angina

50 The prognosis for aortic stenosis is grave when the patients present with?

- A) Syncope
- B) Fatigue
- C) Dyspnoea**
- D) Angina

51 Advantages of mechanical valves over biovalves are all **except**?

- A) Durability
- B) Freedom from anticoagulation**
- C) Cost-effective
- D) Lower profile

52 All are mechanical heart valves **except**?

- A) Advancing The Standard
- B) St Jude Medical
- C) Medtronic Hancock**
- D) TTK Chitra

53 The common location for mycobacterium infection other than tuberculosis is?

- A) Left upper lobe
- B) Right middle lobe**
- C) Right upper lobe
- D) Left lower lobe

54 TRUE about arrhythmias following pneumonectomy?

- A) Ventricular tachycardia is frequent
- B) Common after 1 week
- C) Incidence been reported to range from 5 to 40%**
- D) Atrial fibrillation is less frequent

55 Symptomatic and diagnostic features of achalasia include all **except**?

- A) Dysphagia and regurgitation are most common
- B) May be associated with vigorous achalasia
- C) Manometry findings are non specific**
- D) A barium enhanced esophagogram is reported to have a diagnostic accuracy of 85% in patients with achalasia

56 Diaphragmatic hernia of Morgagni is

- A) Type I or sliding hiatal hernia
- B) Anterior retrosternal diaphragmatic hernia**
- C) Postero-lateral diaphragmatic hernia
- D) Type II or para –esophageal hernia

57 Spontaneous pneumothorax can occur due to all **except**?

- A) Marfan syndrome**
- B) Catamenial
- C) Severe acute respiratory syndrome
- D) Barotrauma

58 All are advantages of flexible bronchoscope over rigid bronchoscope **except**?

- A) Well tolerated
- B) Requires only local anesthesia
- C) Accepts larger suction tube and larger forceps**
- D) Minimal sedation required

59 Least common cause of constrictive pericarditis?

- A) Idiopathic
- B) Tuberculosis
- C) Following cardiac surgery**
- D) Following acute pericarditis

60 Ross procedure is?

- A) Pulmonary autograft in aortic position**
- B) Pulmonary autograft in mitral position
- C) Pulmonary valve replacement
- D) Trans-annular patch

61 Most common type of atrial septal defect?

- A) Sinus venosus defect
- B) Incomplete atrio-ventricular septal defect (primum defect)
- C) Secundum type**
- D) Complete atrio-ventricular canal defect

62 Treatment for persistence of fetal ductus arteriosus include all **except**?

- A) Open division or ligation via left thoracotomy /sternotomy
- B) Transcatheter device occlusion
- C) Ligation via video assisted thoracoscopic surgery
- D) Open division or ligation via right thoracotomy**

63 Indication for modified Blalock-Taussig shunt include all **except**?

- A) Tetralogy of Fallot
- B) Pulmonary atresia
- C) Tricuspid atresia
- D) Complete vascular ring**

64 All are true for classical Blalock-Taussig shunt **except**?

- A) Does not require prosthetic material
- B) Provides a precise amount of pulmonary blood flow limited by the orifice of the subclavian artery
- C) Shunt grows with the patient
- D) Does not sacrifice the subclavian artery**

65 The following is incorrect in a pregnant woman with Atrial Septal Defect (ASD)?

- A) Avoid cardiac surgery because of risk to mother and fetus
- B) Circulating blood volume expands by about 50% allowing even more blood to shunt through ASD
- C) May develop signs and symptoms of heart failure during 3rd trimester of pregnancy
- D) Prone for infective endocarditis**

66 Vascular cause of intestinal obstruction?

- A) Thrombosis in inferior vena cava
- B) Circum caval ureter
- C) Mesenteric artery occlusion**
- D) Portal vein thrombosis

67 In which of the following conditions is paradoxical respiration observed?

- A) Diaphragmatic rupture
- B) Flail chest**
- C) Pneumothorax
- D) Hemo-pneumothorax

68 Dysphagia lusoria is a/an?

- A) Aberrant vessel behind esophagus**
- B) Mediastinal tumor
- C) Esophageal carcinoma
- D) Esophageal pouch

69 Which of the following is not a component of Tetralogy of Fallot?

- A) Malaligned VSD
- B) Aortic over-ride
- C) Right ventricular hypertrophy
- D) Mitral valve stenosis**

70 Normal ankle brachial pressure index is?

- A) 0.5 – 0.7
- B) 1.0 – 1.2**
- C) <0.4
- D) 0.6 – 0.9

71 The most frequent site of extra – cranial arterial aneurysm is?

- A) Thoraco- abdominal aorta
- B) Iliac arteries
- C) Infra-renal aorta**
- D) Thoracic aorta

72 Massive hemoptysis is defined as ?

- A) >150 ml in 24 hours
- B) >300 ml in 24 hours
- C) >1000 ml in 24 hours
- D) >600 ml in 24 hours**

73 Most common histologic variant of lung cancer is?

- A) Adenocarcinoma**
- B) Squamous cell carcinoma
- C) Bronchoalveolar carcinoma
- D) Large cell undifferentiated carcinoma

74 The following is not an anatomic site of narrowing in esophagus

- A) Broncho-aortic constriction
- B) Cricopharyngeus muscle
- C) Diaphragmatic constriction
- D) Above the level of carina**

75 Bird's beak radiological sign is indicative of which esophageal disorder?

- A) Achalasia cardia**
- B) Nutcracker esophagus
- C) Diffuse esophageal spasm
- D) Hypertensive lower esophageal sphincter

76 The following are the types of Total anomalous pulmonary venous connection (TAPVC) **except?**

- A) Supra cardiac
- B) Mixed
- C) Retro cardiac**
- D) Infra cardiac

77 The following are the signs of left sided superior vena cava (SVC) **except?**

- A) Dilated coronary sinus
- B) Absent innominate vein
- C) Small SVC
- D) Absent IVC**

78 Goose-neck appearance is seen in?

- A) Complete AV canal defect**
- B) Truncus arteriosus
- C) Tricuspid atresia
- D) Tetralogy of Fallot

79 Egg on side appearance on CXR is seen in?

- A) Tetralogy of Fallot
- B) dTGA**
- C) ccTGA
- D) Truncus arteriosus

80 Double switch surgery is done for?

- A) dTGA
- B) ccTGA**
- C) Truncus arteriosus
- D) AP Window

81 Shone complex consists of all the following **except**?

- A) Parachute mitral valve
- B) Coarctation of aorta
- C) Supra-mitral ring
- D) Interrupted aortic arch**

82 Cyanosis at birth is seen in all the following **except**?

- A) Pulmonary atresia
- B) Aortic atresia
- C) Obstructed TAPVC
- D) Tetralogy of Fallot**

83 Raghib's complex consists of all the following **except**?

- A) Unroofed coronary sinus
- B) Left SVC draining into the LA
- C) Coronary sinus ASD
- D) Atrial fibrillation**

84 Condition in which the saturation is the same in all 4 cardiac chambers?

- A) dTGA
- B) ccTGA
- C) TAPVC**
- D) Tricuspid atresia

85 Condition in which the pressure is the same in all 4 cardiac chambers?

- A) Constrictive Pericarditis**
- B) dTGA
- C) ccTGA
- D) LA myxoma

86 Pulsus parvus et tardus is classically seen in

- A) AR
- B) MS
- C) MR
- D) AS**

87 Following are the types of atrial fibrillation **except**?

- A) Paroxysmal
- B) Persistent
- C) Pertinent**
- D) Permanent

88 Barlow's disease is associated with?

- A) Mitral stenosis
- B) Mitral valve prolapse**
- C) Aortic regurgitation
- D) Rheumatic heart disease

89 Commonest valve inflection in rheumatic heart disease is

- A) Mitral**
- B) Aortic
- C) Pulmonary
- D) Tricuspid

90 The fibrous skeleton of the heart essentially comprises of all these **except**?

- A) Mitral valve
- B) Aortic valve
- C) Pulmonary valve**
- D) Tricuspid valve

91 Commonest site for cardiac myxoma is?

- A) Left atrium**
- B) Right atrium
- C) Left ventricle
- D) Right ventricle

92 Patient presents with new onset atrial fibrillation, with hemodynamic instability. What is the management?

- A) Observation
- B) DC cardioversion**
- C) Amiodarone
- D) Surgical ablation

93 Moderator band is found in which cardiac chamber

- A) Right atrium
- B) Right ventricle**
- C) Left atrium
- D) Left ventricle

94 Aberrant foci in atrial fibrillation mostly originate in?

- A) Left atrium
- B) Right atrium
- C) Pulmonary veins**
- D) Right ventricle

95 Indications for surgery in infective endocarditis are all **except**?

- A) Fungal endocarditis
- B) Recurrent embolism
- C) New onset murmur**
- D) Development of heart failure

96 Norwood procedure is done for?

- A) Tetralogy of Fallot
- B) Truncus arteriosus
- C) Double outlet right ventricle
- D) Hypoplastic left heart syndrome**

97 The following score is used to assess the size of the band used in pulmonary artery banding?

- A) Nakata's score
- B) Mcgoon's score
- C) Trussler's score**
- D) Taussig's score

98 In Hypoplastic left heart syndrome child has circulatory collapse classically at?

- A) Birth
- B) 48 hours after birth**
- C) 3 -6 months of age
- D) Within 1st week

99 Advantages of venting the heart during cardiac surgery are all **except**?

- A) Prevents rewarming
- B) Keeps the field clean
- C) Removes thrombi**
- D) Prevents distension of cardiac chambers

100 Sites of venting the heart are all **except**?

- A) Right atrium
- B) Right ventricle**
- C) Right superior pulmonary vein
- D) Left atrium

Note: This is the final key. No further queries or objections from the candidates will be entertained under any circumstances.