A to 13

WRITTEN TEST FOR MFCP OF PERFUSIONIST HELD ON 08/07/2015

1. Diagonal artery is a branch of
   A. Left anterior descending artery
   B. Obtuse marginal artery
   C. Posterior descending artery
   D. Left coronary lines

2. The ideal range of Activated Clotting Time for safe conduct of CPB is
   A. 100-200 B. 200-250 C. 400-480 D. 0-100

3. Cardiac surgery done under controlled cross circulation was based on
   A. Azygous flow principle
   B. Laplace Law
   C. Alpha stat principle
   D. Murphy's law

4. Oxygen binding capacity of Heamoglobin is
   A. 1.34ml g O2/ gm
   B. 3 ml g O2/ gm
   C. 5 ml g O2/gm
   D. 10 ml g O2/gm

5. First successful open heart procedure under CPB is humans was done in 1953 by
   A. John Gibbon
   B. C. Walton Lillihei
   C. F John Lewis
   D. Cristian Bernard

6. Opimum flow rate + pressure for Retrograde cardioplegia delivery is
   A.200-400 ml/min at 30-50mm Hg
   B. 200-400 ml/min at 70-80mm Hg
   C. 100-200 ml/min at 70-80 mm Hg
   D. 500 ml/min at 60-70 mm Hg

7. In a heat exchanger, the temperature gradient between the water and blood is kept at
   A. 0-10 degree C
   B. 10-20 degree C
   C. 25-30 degree C
   D. 15-25 degree C

8. Coronary Sinus normally drains into
   A. LA B. RA C. LV D. RV

9. Pacemaker of the normal human heart is
   A. SA Node B. AV Node C. HIS bundle D. Crista terminalis

10. Safe limit of circulatory arrest at 18 degree C is
   A. 20-40 minutes
   B. 60-80 minutes
   C. 80-100 minutes
   D. 100-120 minutes

11. Ideal negative suction for vaccum assisted venous Return
   A. -0 to -10 cm H20
   B. -40 to - 60 cm H20
   C. -60 to -80 cm H20
   D. -100 cm H20

12. Ideal haematocrit for moderate and deep hypothermia is
   A. 0.20-0.25 B. 0.3-0.4 C. 0.45-0.5 D. 0.15-0.20

13. St thomas II solution contains all of the following except
   A. Potassium B. Calcium C. Magnesium D. Mannitol

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14. Glucose insulin solution is used for the management
    A. Hyperkalemia B. Hypokalemia
    C. Hypercalcemia D. Oliguria

15. Which of the following is a cyanotic heart disease
    A. ASD B. VSD C. CoA D. Tetralogy of fallots

16. Ideal flow rate for adults at 28 degree C is
    A. 1.8-2.2 L/ min /m2 B. 1-1.5 L/ min /mL
    C. 1.5-1.8 L/ min /m2 D. 0.5 L/ min /m2

17. Measurement of gas transfer occurring artificial membranes is calculated using
    A. Ficks Principle B. Starting Law
    C. Dalton Law D. Bernoullis Law

18. The gas used in the IABP is
    A. Helium B. Carbon dioxide C. Nitrogen D. Oxygen

19. Pressure drop across a membrane oxygenator typically is
    A. 10 cm H2O B. 20 cm H2O C. 50 cm H2O D. 100 cm H2O

20. Drug routinely used to neutralize Heparin after CPB
    A. Protamine B. Dopamine C. Tranexamic acid D. Bivalrudin

21. The usual dose of Heparin administered for CPB is
    A. 3-4 mg/kg body weight B. 1-2 mg/ kg body weight
    C. 5-8 mg/kg body weight D. 2-3 mg/kg body weight

22. The following are vasodilator drugs except
    A. Dobutamine B. Sodium Nitroprusside (SNP)
    C. Nitroglycerine(NTG) D. Vasopressin

23. The normal physiological Serum Potassium level
    A. 3.5 – 5 m Eq /L B. 1.5 – 2.5 m Eq/L
    C. 6 – 8 m Eq /L D. 1.5- 3.5 m Eq/L

24. Hageman's factor is
    A. Factor 10 B. Factor 12
    C. Factor 9 D. Factor 8

25. Which one of the following drugs is administered in CPB to terminate Ventricular Fibrillation
    A. Amiodarone B. Insulin
    C. Sevoflurane D. Lasix

26. Steps to follow in case of air embolism during CPB is / are
    A. Stop CPB B. Place patient in steep head down position
    C. Begin retrograde cerebral perfusion D. All of the above

A to B

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27. The normal blood bicarbonate level is
    A. 22-26 m Eq/L B. 15-20 m Eq/L
    C. 50-55 m Eq/L D. 40-45 m Eq/L

28. Normal Blood pH is
    A. 7.36-7.44 B. 7.44-7.50
    C. 7.20-7.36 D. 7.1-7.2

29. Which blood group called universal donor ?
    A. AB+ B. AB- C. O+ D. O-

30. Arterial Line filters remove microemboli in the range of
    A. 5-10 microns B. 10 –15 microns
    C. 15 –20 microns D. >40 microns

31. The life span of the red blood cells in the body is about
    A. 70 days B. 157 days
    C. 150 days D. 120 days

32. The greatest quantity of air that can be expelled after a maximum inspiratory effect on expiration after full inspiration is its
    A. Residual volume B. Tidal volume
    C. Vital capacity D. Lung volume

33. Accepted urine output during cardiopulmonary bypass is
    A. 0.0-0.25 ml/kg/hr B. 0.25-0.5 ml/kg/hr
    C. 0.5-1.0 ml/kg/hr D. None of the above

34. Flow rates during Cardiopulmonary bypass depends upon all except
    A. Systemic temperature of the patient B. Body surface area
    C. Weight of the patient D. Duration of Cardiopulmonary bypass

35. The Doppler measures
    A. Flow velocity B. Volume flow
    C. Systolic pressure D. Peripheral resistance

36. The value of diastolic blood pressure is
    A. 120 mmHg B. 80 mmHg
    C. 120/80 mmHg D. 40 mmHg

37. Thickening of the wall of arteries is known as
    A. Thrombosis B. Dissection
    C. Atherosclerosis D. Heart attack

38. Who was the first to describe the principles of blood circulation?
    A. John Hunter B. William Harvey
    C. Rudolf Matas D. Alexis Carrel

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A to B

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39. True mixed venous blood is drawn from
    A. Vena cava
    B. Right atrium
    C. Right ventricle
    D. Pulmonary artery

40. The cerebellum is important in controlling
    A. Muscular coordination
    B. Muscle strength
    C. Stretch reflexes
    D. Stereognosis

41. Exchange of gases in lung alveoli occurs through
    A. Active transport
    B. Osmosis
    C. Simple diffusion
    D. Passive transport

42. All of the following surgeries can be performed using single two stage venous cannula except
    A. Aortic valve
    B. CABG
    C. Ascending aorta
    D. ASD

43. Concept of blood cardioplegia was introduced by
    A. Buckberg B. Melrose C. Ebert D. Lillehei

44. The main function of the white blood cells in the body is to
    A. Protect the body from diseases
    B. Carry oxygen
    C. Carry food
    D. Help in the formation of clot

45. The vitamin necessary for blood clotting is
    A. Vitamin A
    B. Vitamin K
    C. Vitamin C
    D.Vitamin E

46. Blood circulates from arteries to veins through microscopic vessels called
    A. Villi B.Corpuscles C. Capillaries D. Calories

47. The covering of the heart is known as
    A. Diaphragm
    B. Pericardium
    C. Peritoneum
    D. Pleura

48. All of them are risk factors for coronary artery disease except
    A. Smoking
    B. Dyslipidaemia
    C. Hypertension
    D.Exercise

49. Angiography is the imaging of
    A. Blood vessel B. Nerve C. Bone D.Brain

50. Which of the following is not a type of blood pump used in cardiopulmonary bypass
    A. Roller pump
    B. Centrifugal pump
    C. Centripetal pump
    D. Pulsatile pump