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Ph.D. ENTRANCE EXAMINATION - 2020

Subject : Pathology
Date : 06.01.2020
Max Marks: 60

Duration: 01:30 Hrs.
Place : Dehradun

Student Name:

Invigilator Name:

Signature:

Signature:

1. Coagulative necrosis is:
 - a. Characteristic of focal bacterial infections.
 - b. Characteristic of hypoxic death.
 - c. Characteristic by loss of tissue architecture.
 - d. None of the above.

2. Dystrophic calcifications are calcifications seen in:
 - a. Skin layers
 - b. Salivary glands
 - c. Normal tissues
 - d. Dead tissue

3. Diabetic gangrene is caused by:
 - a. Vasospas
 - b. Peripheral neuritis
 - c. Atherosclerosis
 - d. None of the above

4. Liquefactive necrosis is commonly seen in:
 - a. Brain
 - b. Lung
 - c. Liver
 - d. Spleen

5. Stain used for demonstration of amyloid is:
 - a. Congo red
 - b. Masson's trichrome
 - c. Vonkosa
 - d. Reticulin

6. Physiologic programmed cell death is termed as:
 - a. Apoptosis
 - b. Lysis
 - c. Autolysis
 - d. Autopsy

7. Amyloidosis is commonly associated with:
 - a. Chronic osteomyelitis
 - b. Periostitis
 - c. Acute osteomyelitis
 - d. Multiple myeloma

8. Metastatic calcifications are seen in:
 - a. Hypoparathyroidism
 - b. Vitamin D deficiency
 - c. Hypercalcemia
 - d. All of the above

9. Which of the following is correctly matched
 - a. Coagulation necrosis tuberculosis
 - b. Caseation yellow fever
 - c. Fat necrosis pancreatitis
 - d. Gumma infarction

10. Cellular swelling and fatty change are example of :
- Reversible injury
 - Irreversible injury
 - Both a and b
 - None of the above
11. Hypoxic death leads to:
- Liquefactive necrosis
 - Coagulative necrosis
 - Caseous necrosis
 - Fat necrosis
12. Pyknosis is characterized by:
- Nuclear basophilia
 - Nuclear shrinkage
 - Nucleus disintegration
 - Nucleolus disintegration
13. Which of the following is correct
- Pyknosis- shrinkage of nucleus
 - Karyolysis- dissolution of nucleus
 - Karyorrhexis- fragmentation of nucleus
 - All of the above
14. Gangrene is the death of a part accompanied by:
- Suppuration
 - Putrefaction
 - Calcification
 - Coagulation
15. The hormone dependent shedding of endometrium is an example of:
- Necrosis
 - Autolysis
 - Apoptosis
 - None of the above
16. Maltory's degeneration seen in alcoholic liver disease is a form of:
- Hyaline degeneration
 - Amyloid degeneration
 - Hydropic degeneration
 - Fatty degeneration
17. A reduction in the total leucocyte count is called:
- Leucocytosis
 - Leucopenia
 - Leucorrhoea
 - Leukemia
18. Reduced number of platelet is found in all the conditions except:
- Disseminated intravascular coagulation.
 - Aplastic anaemia
 - Acute myelocytic leukemia
 - Von willebrand disease

19. In hemophilic patient which of the following should not be given:
- Factor VIII concentrate
 - Cryoprecipitate
 - EACA
 - Platelet factor
20. Normal adult haemoglobin contains:
- One alpha and one beta chain
 - One alpha and two beta chains
 - One beta chains and two alpha chains
 - Two alpha chains and two beta chains
21. In megaloblastic anaemia the cells are:
- Macrocytic hyperchromic
 - Macrocytic hypochromic
 - Macrocytic normochromic
 - None of the above
22. Pernicious anaemia is associated with the deficiency of:
- Folic acid
 - Vitamin B1
 - Vitamin B6
 - Vitamin B12
23. A patient reports with dyspnoea on slight exertion. He also has multiple spots and spontaneous hemorrhage. His RBC count is less than one lakh/mm³ his hematocrit and haemoglobin is low. Most probable diagnosis is:
- Pernicious anemia
 - Thalassemia
 - Aplastic anemia
 - Sprue
24. A patient with a bleeding disorder with increased bleeding time and normal clotting time is suffering from:
- Classic haemophilia
 - Christmas disease
 - Vitamin K deficiency
 - Idiopathic thrombocytopenic purpura
25. Gingivae are enlarged in leukemia because of:
- Capillary dilation
 - Erythrocyte engorgement
 - Edema
 - WBC infiltration
26. Oedema may be caused by any of the following EXCEPT:
- An increase in the plasma protein concentration
 - An increase in the capillary hydrostatic pressure
 - An increase in the capillary permeability
 - Lymphatic obstruction

27. The most common site of origin for venous thrombi leading to pulmonary embolism is:
- Ascending aorta
 - Portal vein
 - Deep leg veins
 - Right atrium
28. Edema is due to:
- Increased albumin in blood and decreased globin
 - Decreased albumin conc. in blood
 - Increased osmotic pressure
 - None of the above
29. Anasarca means:
- Abnormal inflammatory process
 - Severe generalized swelling
 - Absence of proliferation of vessels following inflammation
 - Presence of pus
30. All of the following are typically associated with loss of 40% of the circulating blood volume except:
- A decrease in the blood pressure
 - A decrease in the central venous pressure
 - A decrease in the heart rate
 - A decrease in the urine output
31. Which of the following is common in all forms of shock?
- Sepsis
 - Hypovolemia
 - Vasoconstriction
 - Impaired tissue perfusion
32. In hypovolemic shock:
- The central venous pressure is high
 - The extremities are pale, cold and sweating
 - There is always a site of bleeding
 - Urine output is unaffected
33. Shock is a circulatory disturbance characterized by:
- Increased blood pressure
 - Decreased volume of circulation blood
 - Elevated body temperature
 - Decreased volume of interstitial fluid
34. Hypovolemic shock develops after loss of:
- 10% blood
 - 20% blood
 - 30% blood
 - 40% blood
35. Following is the most important factor in the management of shock:
- Blood pressure
 - Cardiac output
 - CVP to 8 cm of water
 - Deficiency of effective circulating blood volume

36. Heart failure cells are:
- Fibrocytes in myocardium
 - Aschoji's giant cells
 - Heamosiderin laden macrophages in alveoli
 - Hypertrophic myocardial fibres
37. Synthesis of DNA occurs in Which phase of cell A cycle
- Mitosis - M phase
 - Gap - G2 phase
 - Gap - G1 phase
 - Synthesis - S phase
38. The cells which have the capacity to multiply through out their life:
- Stable cells
 - Permanent cells
 - Labile cells
 - None of the above
39. Which of the following has least capacity for regeneration:
- Cardiac muscle
 - Skeletal muscle
 - Neurons
 - All of the above
40. Granulation tissue contains:
- Giant cells
 - Fibroblasts
 - Endothelial cells
 - B&C
41. The first even in primary wound healing:
- Epithelial changes
 - Organization
 - Formation of blood cloth
 - Acute inflammatory response
42. Wounds which are clean uninfected and surgically incised, with edge of wounds approxiamated by sutures heal by:
- Primary intention
 - Secondary intention
 - Cicatrisation
 - All of the above
43. Large open wounds that are characterized by tissue loss and repaired by formation of granulation tissue in the floor of the wound is characteristic of:
- Secondary healing
 - Primary healing
 - Cicatrisation
 - Regeneration
44. Incomplete fractures of the bone are called:
- Comminuted fracture
 - Compound fracture
 - Simple fracture
 - Green stick fracture
45. Peripheral nerve regenerates at the rate of ___ mm per day:
- 1
 - 2
 - 0.5
 - 5

46. All of the following promotes wound healing except:
- Protein
 - Steroids**
 - Vitamin C
 - Adequate oxygen supply
47. Correct sequence of cell cycle
- G₀ - G₁ - S - G₂ - M**
 - G₀ - G₁ - G₂ - S - M
 - G₀ - M - G₂ - S - G₁
 - G₀ - G₁ - S - M - G₂
48. Epithelioid cells are seen in all of the following except:
- Tuberculosis
 - Granulation tissue**
 - Syphilis
 - Sarcoidosis
49. Which of the following statement about fibrinous exudate is FALSE?
- It is associated with many types of severe inflammation
 - It has low protein content**
 - It has fibrin precipitates
 - It induces connective tissue organization
50. Some micro organisms produce a diffuse spreading inflammatory reaction due to the elaboration of:
- Coagulase
 - Peroxidase
 - Bradykinin
 - Hyaluronidase**
51. An acute inflammatory focus would attract:
- Monocytes
 - Plasma cells
 - Neutrophils**
 - Basophils
52. Granuloma is characterized by all of the following except:
- A specific type of chronic inflammation
 - Accumulation of modified macrophages
 - Initiated by a number of infectious and non infectious agents
 - A reaction of acute inflammation**
53. Which cell releases vasoactive amine so as to increase vascular permeability?
- Leukocyte
 - Macrophage
 - Mast cell**
 - Fibroblast
54. Prostaglandins are synthesized from:
- RNA template
 - Rough endoplasmic reticulum
 - Polyunsaturated fatty acids**
 - None of the above
55. Transudate is characterized by:
- Associated inflammatory conditions
 - Low protein content**
 - Tendency to clot
 - Specific gravity of above 1.018

56. Edema occurs due to:
- Increased capillary permeability
 - Decreased capillary permeability
 - Decreased interstitial fluid
 - Decreased blood flow
57. Disappearance of nuclear chromatin is called as:
- Pyknosis
 - Karyolysis
 - Karyorrhexis
 - None
58. A patient has increased number of columnar cells in lower esophagus. He has which of the following change:
- Dysplasia
 - Anaplasia
 - Metaplasia
 - Normal histology
59. Saddle embolus causes sudden death by blocking:
- Coronary arteries
 - Cerebral arteries
 - Pulmonary arteries
 - Renal arteries
60. Egg shell calcification of Hilar Lymphnode is associated with:
- Silicosis
 - Asbestosis
 - Byssinosis
 - Anthraxosis
