

CHRISTIAN SERVICE UNIVERSITY COLLEGE, KUMASI, GHANA



FACULTY OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF PHYSICIAN ASSISTANTSHIP STUDIES

BSC. PHYSICIAN ASSISTANTSHIP STUDIES (MEDICAL)

END OF FIRST SEMESTER EXAMINATIONS, 2018/2019 ACADEMIC YEAR

LEVEL 200

PACS 207: GENERAL PATHOLOGY I

May, 2019

Time Allowed: ..2:30 Hours

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- Write your Index Number and Date and sign (your Signature) on the space provided at the top of each page of the Question Paper
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SECTION: A

CHOOSE THE MOST APPROPRIATE ANSWER

1. An increase in the size of an organ due to an increase in the size of the cells is called

- a. Anaplasia
- b. Metaplasia
- c. Hyperplasia
- d. Hypertrophy
- e. Atrophy

2. Increase in protein synthesis and increase in the size or number of intracellular organelles results in

- a. Aplasia
- b. Hyperplasia
- c. Apoptosis
- d. Hypertrophy
- e. Oedema

3. Enlargement of the left ventricle as a result of hypertensive heart diseases is an example of

- a. Hypertrophy
- b. Inflammation
- c. Metaplasia
- d. Hypoxic injury
- e. Hperplasia

4. Glandular proliferation in the breast during pregnancy is as a result of

- a. Atrophy
- b. Hyperplasia
- c. Metaplasia
- d. Apoptosis
- e. Cytokinesis

5. All the following are true regarding aplasia except

- a. Failure of cell production
- b. Results in absence of an organ during fetal development
- c. Results in loss of precursor cells in proliferative tissues
- d. Leads to agenesis
- e. Seen in the partial lack of growth and maturation of gonadal structures in Turners Syndrome and Klinefelters syndrome.

6. The distinguishing feature of hypoplasia from aplasia is

- a. Decrease in cell production that is more extreme than aplasia
- b. Cell production is the same as in aplasia
- c. Seen in the partial lack of growth and maturation of gonadal structures
- d. Decrease in cell production less extreme than aplasia
- e. Hypoplasia results in agenesis whilst aplasia does not result in agenesis.

7. All the following are true regarding atrophy except

- a. Presence of autophagic granules
- b. Causes a decrease in the size of an organ or tissue
- c. Diminished endocrine stimulation
- d. Increase in the mass of pre-existing cells
- e. Denervation resulting in lack of nerve stimulation in peripheral muscles.

8. Which of the following does not explain the concept of tissue metaplasia?

- a. Replacement of one differentiated tissue by another
- b. Replacement of columnar epithelium at the squammo- columnar junction of the cervix by squamous epithelium.
- c. Associated with chronic inflammation
- d. It is an irreversible process
- e. Metaplasia can also occur in the bronchi as result of excessive cigarette smoking.

9. The following events result in hypoxic cell injury except

- a. Poor oxygenation of blood secondary to pulmonary disease
- b. Hypotension and shock
- c. Carbon monoxide poisoning
- d. Increased perfusion of tissues
- e. Ischaemia

10. Which of the following is not an anti-oxidant?

- a. Transferrin
- b. Vitamin E
- c. Glutathione
- d. Aspartame
- e. Cysteine

11. Concerning tissue necrosis all the following are true except

- a. It is one of two contrasting morphologic pattern of tissue death.
- b. It is the sum of the degradative and inflammation reaction occurring after tissue death caused by injury
- c. Autolysis as occurs in necrosis refers to degradative reaction in cells caused by intracellular enzymes indigenous to the cells.
- d. Gaseous necrosis is an example
- e. Heterolysis as occurs in necrosis refers to cellular degradative changes by enzymes derived from sources extrinsic to the cell i.e bacteria and leucocytes

12. Which of the following types of necrosis combines features of coagulative and liquefactive necrosis and is a hallmark of Tuberculosis

- a. Caseous necrosis
- b. Gaseous necrosis
- c. Coagulative necrosis
- d. Fibrinoid necrosis
- e. Gangrenous necrosis

13. This type of necrosis has a cheese-like appearance on histologic examination

- a. Gangrenous
- b. Fibrinoid
- c. Liquefactive
- d. Caseous
- e. Coagulative necrosis

14. An important mechanism for physiologic cell removal during development and in programmed cell cycling is called

- a. Apoptosis
- b. Hypoplasia
- c. Autophagy
- d. Vacuolation
- e. Necrosis

15. Bcl-2 and p53 are important genes that regulate

- a. Necrosis
- b. Tissue Death
- c. Programmed cell death
- d. Inflammation
- e. Anaplasia

16. Reversible cellular changes include all the following except:

- a. Hyaline change
- b. Accumulation of endogenous pigment
- c. Accumulation of bilirubin resulting in jaundice
- d. Liquefactive necrosis
- e. Fatty change

17. Haemochromatosis results from the accumulation of

- a. Lead
- b. Silver
- c. Iron
- d. Carbon
- e. Silica

18. The two types of pathologic calcification are:

- a. Metastatic and Dystrophic calcification
- b. Metastatic and osteolytic calcification
- c. Haemochromatosis and Haemosiderin accumulation
- d. Traumatic and Dystrophic calcification
- e. Metastatic and hypercalcaemia

19. The cardinal signs of inflammation are

- a. Rubor
- b. Dolor
- c. Calor
- d. Fetor
- e. Tumor

20. The cascade of events resulting in inflammation includes all the following except

- a. Exudation of fluid from vessel
- b. Attraction of leucocytes to the injury site
- c. Activation of chemical mediators
- d. Proteolytic degradation of extracellular debris
- e. Formation of cell blebs

21. Regarding the causes of inflammation, the following are true except

- a. Infection
- b. Trauma
- c. Immunologic injury
- d. Tissue perfusion
- e. Tissue death

22. During acute inflammation mast cells and basophils are an important source of

- a. Serotonin
- b. Bradykinin
- c. Histamine
- d. Leucocytes
- e. Endothelin

23. All the following are outcomes of acute inflammation except

- a. Abscess
- b. Ulcer
- c. Fistula
- d. Scar
- e. Tumor

24. The following cells are involved in acute inflammation except

- a. Neutrophil
- b. Lymphocytes
- c. Eosinophils
- d. Prostaglandins
- e. Mast cells

25. During acute inflammation an agent that acts as a vasoconstrictor and causes platelet aggregation is

- a. Thromboxane(TxA₂)
- b. Prostacyclin(PGI₂)
- c. Histamine
- d. Endothelin
- e. Basophils

26. Which of the following acts as a vasodilator during acute inflammation?

- a. Prostacyclin (PGI₂)
- b. Complement
- c. Endothelin
- d. Thromboxan
- e. Cyclooxygenase

27. What is the role of histamine during acute inflammation:

- a. To decrease capillary permeability
- b. To increase capillary permeability
- c. Causes vasoconstriction
- d. Activate the complement system
- e. Increase the number of basophils

28 .An abnormal accumulation of fluid in the interstitial tissue spaces or body cavities is called

- a. Tumor
- b. Inflammation
- c. Cytosol
- d. Osmosis
- e. Edema

29. The following are features of shock except

- a. Hypoperfusion
- b. Decreased oxygenation of tissues
- c. Increased cardiac output
- d. Peripheral vasodilation
- e. Circulatory collapse

30. Edema is caused by all the following except

- a. Increased hydrostatic pressure as exemplified by CHF
- b. Increased sodium retention
- c. Decreased oncotic pressure from hypoalbuminaemia
- d. Increased capillary permeability during inflammation
- e. Increased glomerular filtration rate.

31. The passage and eventual trapping within the vasculature of any of a wide variety of mass objects is called

- a. Thrombolism
- b. Embolism
- c. Thromboses
- d. Shock
- e. Phlebitis

32. Which of the following conditions does not lead to an increase risk of thrombosis?

- a. Sickle cell
- b. Malignancies
- c. Immobilization
- d. Venous stasis
- e. Increased mobility

33. The various types of embolism are

- a. Fat embolism
- b. Amniotic fluid embolism
- c. Pulmonary embolism
- d. Coagulative embolism
- e. Air embolism

34. The escape of blood from the vasculature into the surrounding tissue, a hollow organ or body cavity , most often caused by trauma is called

- a. Haematemesis
- b. Haemorrhage
- c. Haematin
- d. Perfusion
- e. Embolism

35. A localized increase in the volume of blood in capillaries and small vessels is called

- a. Hyperemia
- b. Petechiae
- c. Eccymoses
- d. Trauma
- e. Inflammation

36. The following clotting factor converts fibrinogen to fibrin

- a. Thrombin
- b. Tissue factor
- c. Factor V
- d. Prothrombin
- e. Vitamin K

37. Pump failure of the left ventricle results in

- a. Cardiogenic shock
- b. Septic shock
- c. Neurogenic shock
- d. Hypovolemic shock
- e. Anaphylactic shock

38. A patient with severe diarrhea and vomiting will present with

- a. Cardiogenic shock
- b. Hypovolemic shock
- c. Anaphylactic shock
- d. Irreversible shock
- e. Neurogenic shock

39. Compensatory mechanism during shock includes all the following except:

- a. Increased heart rate
- b. Vasoconstriction
- c. Increased secretion of adrenaline
- d. Increased perfusion of vital organs
- e. Increased perfusion to non-vital organs

40. Acute reduction in circulatory blood volume as a result of hemorrhage results in

- a. Cardiogenic shock
- b. Neurogenic shock
- c. Septic shock
- d. Anaphylactic shock
- e. Hypovolemic shock

41. Which of the following has the worst prognosis

- a. Septic shock
- b. Cardiogenic shock
- c. Anaphylactic shock
- d. Neurogenic shock
- e. Hypovolemic shock

42. Malignant neoplasm of epithelial origin are called

- a. Adenomas
- b. Carcinomas
- c. Sarcomas
- d. Fibroma
- e. Carcinoid

43. Regarding the biologic behavior of cancer cells they are either

- a. Benign or Malignant
- b. Poorly differentiated or anaplastic
- c. Sarcomas or Carcinomas
- d. Soft or solid tumors
- e. Metastatic or locally invasive

44. In general benign tumors are

- a. Poorly differentiated
- b. Undifferentiated
- c. Well differentiated
- d. Primitive
- e. Anaplastic

45. The degree to which parenchymal cells resemble comparable normal cells both morphologically and functionally in neoplastic tissues is called

- a. Anaplasia
- b. Pleomorphism
- c. Differentiation
- d. Metastases
- e. Invasion

46. Characteristics of malignant tumors includes all the following except

- a. Metastases
- b. Invasiveness
- c. Slow growth
- d. Rapid growth
- e. Poor differentiation

47. Tumor grading is based on the degree of

- a. Metastases
- b. Pleomorphism
- c. Spread
- d. Hyperplasia
- e. Differentiation

48. CA -125 is a tumor marker for

- a. Renal cancer
- b. Breast cancer
- c. Ovarian cancer
- d. Liver cancer
- e. Lung cancer

49. Patients with Sickle cell disease are prone to the following except

- a. Vasoocclusive painful crises
- b. Aplastic crises
- c. Hepatic rupture
- d. Hemolytic anaemia
- e. Chronic leg ulcers

50. The following cells are involved in the immune system with the exception of

- a. B cells
- b. T cells
- c. Stem cells
- d. Macrophages
- e. Dendritic cells

SECTION B

- i. What is Shock
- ii. Discuss the various types of Shock