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- 1. Which of the following types of necrosis is grossly opaque and chalky white:
 - a) Coagulation necrosis.
 - b) Liquefaction necrosis.
 - c) Caseous necrosis.
 - d) Fat necrosis.
 - e) Gangrenous necrosis.

Key: d

Ref: Cell Injury, Death and Adaptation.

- 2. Which of the following types of necrosis is most commonly associated with ischaemic injury:
 - a) Coagulative necrosis.
 - b) Liquifactive necrosis.
 - c) Caseous necrosis.
 - d) Fat necrosis.
 - e) Gangrenous necrosis.

Key: a

Ref: Cell Injury, Death and Adaptation.

- 3. Dystrophic calcification is most closely associated with:
 - a) Hypercalcaemia.
 - b) Necrosis.
 - c) Chronic irritation.
 - d) Diminished blood flow.
 - e) Increased work load.

Key: b

Ref: Cell Injury, Death and Adaptation.

- 4. Localized area of ischaemic necrosis is mostly associated with:
 - a) Ascitese.
 - b) Petechiae.
 - c) Infarction.
 - d) Emboli formation.
 - e) Hematoma.

Key: c

Ref: Cell Injury, Death and Adaptation.

- 5. Metabolism is most closely associated with:
 - a) Diminished blood supply.
 - b) Increased work load.
 - c) Necrosis.
 - d) Chronic irritation.
 - e) Hypercalcemia.

Key: d

Ref: Cell Injury, Death and Adaptation.

- 6. Which of the following is a reversible change:
 - a) Karyorrhexis.
 - b) Pyknosis.
 - c) Karyolysis.
 - d) Swelling of endoplasmic reticulum.
 - e) Gangrenous necrosis.

Key: d

Ref: Cell Injury, Death and Adaptation.

- 7. After initiation of an acute inflammatory process third in a sequence of changes in vascular flow is:
 - a) Vasoconstriction.
 - b) Redness.
 - c) Leukocytic migration.
 - d) Vasodilation.
 - e) Slowing of the circulation.

Key: d

Ref: Acute and Chronic Inflammation.

- 8. Which of the following are thought to mediate, many of the systemic effects of inflammation are chemotactic and stimulate adhesion molecules:
 - a) Interleukin 1 (IL-1) and tumor necrosis factor.
 - b) C_{5a} and leukotriene B-4.
 - c) C_{3b} .
 - d) Leukotriene C_4 , D_4 and E_4 .
 - e) Bradykinin.

Key: a

Ref: Acute and Chronic Inflammation.

- 9. Which of the following is the hallmark of acute inflammation:
 - a) Neutrophils.
 - b) Connective tissue.
 - c) Macrophages.
 - d) Granulation tissue.
 - e) Granuloma formation.

Key: a

Ref: Acute and Chronic Inflammation.

- 10. Granuloma formation is most frequently associated with:
 - a) The healing process.
 - b) Acute inflammation.
 - c) Wound contraction.
 - d) Fibroblasts and neovascularization.
 - e) A persistent irritant.

Key: e

Ref: Acute and Chronic Inflammation.

- 11. Morphologic changes seen in chronic non-specific inflammation include an increase in:
 - a) Neutrophils, lymphocytes and liquefaction necrosis.
 - b) Neutrophils, macrophages and fibrosis.
 - c) Lymphocytes, plasma cells and fibrosis.
 - d) Giant cells, macrophages and coagulative necrosis.

Key: c

Ref: Acute and Chronic Inflammation.

- 12. Caseation necrosis is most characteristic of:
 - a) Acute myocardial infarction.
 - b) Tuberculosis.
 - c) Acute pancreatitis.
 - d) Cerebral infarct.
 - e) Pulmonary pneumoconiosis.

Key: b

Ref: Acute and Chronic Inflammation.

- 13. The most characteristic feature of granulation tissue is the:
 - a) Growth of fibroblasts and new capillaries.
 - b) Resemblance to a granuloma.
 - c) Character of the exudate.
 - d) Granular scar that results.
 - e) Presence of monocytes and fibroblasts.

Key: a

Ref: Healing and Repair.

- 14. The growth factor elaborated by macrophages, which recruits macrophages and fibroblasts to wound site and induces all steps in angiogenesis is:
 - a) Vascular endothelial growth factor.
 - b) Fibroblast growth factor.
 - c) Epithelial growth factor.
 - d) Platelet derived growth factor.
 - e) Endostatin.

Key: b

Ref: Healing and Repair.

- 15. A young man of 20, got a lacerated wound on his left arm, stiched-1 week later sutures were remained-healing continued but the site became disfigured by prominent raised irregular nodular scar, in next 2 months which of the following best describes the process:
 - a) Organization.
 - b) Dehiscence.
 - c) Resolution.
 - d) Keloid formation.
 - e) Secondary union.

Key: d

Ref: Healing and Repair.

- 16. If a rare disorder with an early onset in life is inherited in such a way that male and female offsprings are equally affected, only homozygous persons are affected, then the mode of inheritance would be:
 - a) Autosomal dominant.
 - b) Autosomal recessive.
 - c) X-linked dominant.
 - d) X-linked recessive.
 - e) Mitochondrial inheritance.

Key: b

Ref: Genetic Disorders.

- A six months old baby with blue eyes, decreased pigmentation of hair and skin and a strong mousy odour is brought to you-on examination there is severe mental retardation. What will be the enzyme deficiency:
 - Homogentisate oxidase.
 - Phenyl Alanine oxidase. b)
 - c) P-hydroxyphenyl pyruvate hyroxylase.
 - d) Tyrosinase.
 - e) α -glucocerebrosidase.

Key: b

Ref: Genetic Disorders.

- A 39 years old male developed a testicular mass which was 18. removed and was sent for pathological examination, along with additional studies. Which of the following is the most compelling evidence that the lesion is malignant:
 - Cells of the mass infiltrate a narrow band of the tuinea albuginea.
 - b) Two mitosis are found in every (HPF) high power field of microscope.
 - c) Nuclei are viable in size and tend to stain.
 - X-ray shows 2 round nodules in the left lung field and one in the d) right, were not present 2 years ago.
 - The patient is found to be infertile. e)

Key: d

Ref: Neoplasia.

- 19. Which of the following pair does not correctly match the tumor with its causative agent:
 - Anagenital carcinoma - HPV (Type 16 & 18). a)
 - Burkitts lymphoma - EBV. b)
 - c)
 - Hepatocellular carcinoma Hepatitis A virus.
 Carcinoma stomach Helicobacter pylori. d)
 - Squamous cell carcinoma skin Ultraviolet radiation. e)

Kev: c

Ref: Neoplasia.

- 20. Which of the following terms refer to a malignant tumor of mesenchymal origin:
 - a) Carcinoma.
 - b) Hepatoma.
 - Hematoma. c)
 - d) Sarcoma.
 - e) Teratoma.

Key: d

Ref: Neoplasia.

- 21. Grading of cancer is based on which of the following statements:
 - a) Size of the primary tumor.
 - Spread of cancer cells to regional lymph nodes. b)
 - Presence of blood born metastasis. c)
 - Degree of differentiation of tumor cells, anaplasia and no. of d)
 - Presence of capsular invasion by tumor cells.

Key: d

Ref: Neoplasia.

- 22. The chemical carcinogen, aflatoxin B-1 derived form a fungus, which contaminates grain foods most commonly induces:
 - a) Transitional cell carcinoma of lung.
 - b) Adenocarcinoma of rectum.
 - c) Squamous cell carcinoma of skin.
 - d) Hepatocellular carcinoma.
 - e) Renal cell carcinoma.

Key: d

Ref: Neoplasia.

- 23. Which of the following is not a malignant tumor:
 - a) Glioma.
 - b) Lymphoma.
 - c) Melanoma.
 - d) Leiamyoma.
 - e) Medulloblastoma.

Key: d

Ref: Neoplasia.

- 24. Which of the following are most frequent site of venous thrombosis?
 - a) Veins of lower extremity.
 - b) Pelvic veins.
 - c) Portal vein.
 - d) Hepatic vein.
 - e) Pulmonary veins.

Key: a

Ref: Haemodynamic Disorders.

- 25. In a state of shock there is:
 - A decreased hydrostatic pressure and increased osmotic pressure.
 - b) Cardiovascular collapse.
 - c) Active process leading to increased volume of blood.
 - d) Decreased pulse rate.
 - e) Fever.

Key: b

Ref: Haemodynamic Disorders.

- 26. The main factor responsible for world wide distribution of Entamoeba histolytica is:
 - a) Extreme antigenic variation.
 - b) Usual stability of its cysts in the environment.
 - c) Wide spread distribution of mosquitoes.
 - d) Usual motility of trophoziotes in contaminated water.
 - e) Poor hygienic conditions of individuals.

Key: b

Ref: Parasitology.

- 27. All of the following characteristics are seen in the stool of Amoebic dysentery except one:
 - a) RBCs in clumps.
 - b) Charcat leyden crystals.
 - c) Eosinophyls.
 - d) Ghost cells.
 - e) Macrophages.

Key: d

Ref: Parasitology.

- 28. Parasite induced pernicious anaemia is caused by:
 - a) Taenia saginata.
 - b) Taenia solium.
 - c) Diphyllabothrium latum.
 - d) Echinococcus granulosus.
 - e) Hymenolepis nana.

Key: c

Ref: Parasitology.

- 29. In malaria the form of plasmodium transmitted to man from mosquito is:
 - a) Sporozoites.
 - b) Gametocytes.
 - c) Merozoites.
 - d) Trophazoites.
 - e) Schizonts.

Key: b

Ref: Parasitology.

- 30. The host that harbours the adult or sexually mature, parasite is called:
 - a) Intermediate host.
 - b) Commensal host.
 - c) Symbiotic host.
 - d) Reservoir host.
 - e) Definite host.

Key: e

Ref: Parasitology.

- 31. Which of the following statements is not correct regarding Hookworm infestation:
 - a) Hookworm infection causes anaemia.
 - b) Man acquires infection when filariform larvae penetrate skin.
 - c) Hookworm infection may sometimes be acquired by oral route.
 - d) Larva passes through human lung during its life cycle.
 - e) Hookworm infection can be diagnosed by finding trophozoites in the stool.

Key: e

Ref: Parasitology.

- 32. Which of the following bacterial substance binds to the Fc portion of immunoglobulin molecules:
 - a) Endotoxin.
 - b) Coagulase.
 - c) Lipotheichoic acid.
 - d) M. protein.
 - e) Protein A.

Key: e

Ref: Virology.

- 33. Which of the following is associated with a deficiency of third component of complement C₃:
 - a) Pyogenic infection.
 - b) Immune complex disease.
 - c) Systemic lupus erythematosus.
 - d) Glomerulonephritis.
 - e) Xeroderma pigmentosum.

Key: a

Ref: Virology.

- 34. Which of the following components enhances the binding of antigen antibody complex to macrophages:
 - a) C1.
 - b) C3a.
 - c) C3b.
 - d) C8.
 - e) Cb6,7 complex.

Key: c

Ref: Virology.

- 35. A secretary piece is attached to IgA:
 - a) In plasma cells.
 - b) In epithelial cells.
 - c) By enzyme in mucous secretion.
 - d) By T-cells.
 - e) By macrophages.

Key: b

Ref: Virology.

- 36. Two tests are used to detect the presence of HIV infections are:
 - a) Agglutination and neutralization reactions.
 - b) Compliment fixation and immunoflorescence tests.
 - c) ELIZA and Western Blotting.
 - d) Haemagglutination and Coamb's Test.
 - e) Indirect haemagglutination and Western Blotting.

Key: c

Ref: Virology.

- 37. General steps in viral multiplication cycle are:
 - a) Adsorption, penetration, replication, maturation and release.
 - b) Endocytosis, uncoating, replication, assembly and budding.
 - c) Adsorption, uncoating, duplication, assembly and lysis.
 - d) Endocytosis, penetration, replication, maturation, exocytosis.
 - e) Adsorption, replication, uncoating and release.

Key: b

Ref: Virology.

- 38. Which of the following serum component is an indicator of post infection and subsequent immunity to hepatitis B-viral infection:
 - a) HBS Ag.
 - b) HBC Ag.
 - c) HBe Ag.
 - d) Anti HBS.
 - e) Anti HBC.

Key: d

Ref: Virology.

- 39. Which of the following conditions is not rightly against its causative agent:
 - a) Squamous cell carcinoma cervix = HPV (16, 18).
 - b) Nasopharyngeal carcinoma = EBV.
 - c) Cutaneous warte, (squamous cell papilloma) = HPV (12, 4, 7).
 - d) Hepatocellular carcinoma = HDV.
 - e) Gastric lymphoma = H. Pylori.

Key: d

Ref: Virology.

40. Which of the following is a RNA virus:

- a) Human papilloma virus.
- b) Human T-cell leukaemia virus.
- c) Hepatitis B virus.
- d) Epstein Barr virus.
- e) Cytomegalo virus.

Key: b

Ref: Virology.

41. The antiphagocytic property of the group A streptococcus is associated with which of the following:

- a) Hyaluromidase.
- b) Streptolysin S.
- c) M. protein.
- d) Peptidoglycan.
- e) C carbohydrate.

Key: c

Ref: Microbiology (General and Systemic).

42. Which of the following is correct sequence of steps in performing Gm. Stain:

- a) Safranin stain, crystal violet stain, iodine solution.
- b) Crystal violet stain, decolorization, safranin stain, iodine solution.
- c) Safranin stain, iodine solution, decolorization, crystal violet stain.
- d) Crystal violet stain, iodine solution, decolorization, safranin stain.
- e) Iodine solution, crystal violet, decolorization, safranin.

Key: d

Ref: Microbiology (General and Systemic).

43. The most reliable method for diagnosis of primary syphilis is the:

- a) VDRL Test.
- b) FTA-ABS.
- c) Microhemagglutinine.
- d) Dark field examination of chancre material.
- e) Treponema pallidum immobilization test.

Key: c

Ref: Microbiology (General and Systemic).

44. The pathogenisis of which of the following organisms is most likely to involve invasion of the intestinal mucosa:

- a) Vibrio chalerae.
- b) Enteroloxigenic E. coli.
- c) Shigella somei.
- d) Clostridium botulinum.
- e) Pseudomonas aerogenosa.

Key: c

Ref: Microbiology (General and Systemic).

45. Which of the following tests does not correspond with the respective disease:

- a) Casoni's Test for Hydatid disease.
- b) Frei's Test in Infectious mononuclease.
- c) Schick's Test for Diphtheria.
- d) Wasserman's Test for syphilis.
- e) Widal Test for typhoid.

Key: b

Ref: Microbiology (General and Systemic).