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) Ascites.
   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) C5a and leukotriene B-4.
   c) C3b.
   d) Leukotriene C4, D4 and E4.
   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.
17. 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:
   a) Homogentisate oxidase.
   b) Phenyl Alanine oxidase.
   c) P-hydroxyphenyl pyruvate hyroxlase.
   d) Tyrosinase.
   e) α–glucocerebrosidase.
   Key: b
   Ref: Genetic Disorders.

18. A 39 years old male developed a testicular mass which was 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:
   a) 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.
   d) X-ray shows 2 round nodules in the left lung field and one in the right, were not present 2 years ago.
   e) The patient is found to be infertile.
   Key: d
   Ref: Neoplasia.

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

20. Which of the following terms refer to a malignant tumor of mesenchymal origin:
   a) Carcinoma.
   b) Hepatoma.
   c) Hematoma.
   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.
   b) Spread of cancer cells to regional lymph nodes.
   c) Presence of blood born metastasis.
   d) Degree of differentiation of tumor cells, anaplasia and no. of mitosis.
   e) Presence of capsular invasion by tumor cells.
   Key: d
   Ref: Neoplasia.
22. The chemical carcinogen, aflatoxin B-1 derived from 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) Leiomyoma.
   e) Medulloblastoma.
   **Key: d**
   **Ref: Neoplasia.**

24. Which of the following are the most frequent sites 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) 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 worldwide 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 trophozoites 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) Charcot leyden crystals.
   c) Eosinophils.
   d) Ghost cells.
   e) Macrophages.
   **Key: d**
   **Ref: Parasitology.**
28. Parasite induced pernicious anaemia is caused by:
   a) Taenia saginata.
   b) Taenia solium.
   c) Diphyllobothrium 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) Trophozoites.
   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 secretory 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) Cytomegalovirus.
   Key: b
   Ref: Virology.

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