

**BDS SECOND PROFESSIONAL EXAMINATION 2007**  
**GENERAL PATHOLOGY AND MICROBIOLOGY**  
***MODEL PAPER (MCQs)***

Total Marks: 45  
Total No. of MCQs: 45

Time Allowed: 45 Minutes

**Note:**        **THE FINAL PAPER WILL BE SIMILAR TO THE MODEL PAPER BUT WILL FOLLOW TOS EXACTLY.**

**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) Liquefactive 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.**

**BDS SECOND PROFESSIONAL EXAMINATION 2007**  
**GENERAL PATHOLOGY AND MICROBIOLOGY**  
**MODEL PAPER (MCQs)**

6. Which of the following is a reversible change:
- Karyorrhexis.
  - Pyknosis.
  - Karyolysis.
  - Swelling of endoplasmic reticulum.
  - 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:
- Vasoconstriction.
  - Redness.
  - Leukocytic migration.
  - Vasodilation.
  - 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:
- Interleukin 1 (IL-1) and tumor necrosis factor.
  - C<sub>5a</sub> and leukotriene B-4.
  - C<sub>3b</sub>.
  - Leukotriene C<sub>4</sub>, D<sub>4</sub> and E<sub>4</sub>.
  - Bradykinin.
- Key: a**  
**Ref: Acute and Chronic Inflammation.**
9. Which of the following is the hallmark of acute inflammation:
- Neutrophils.
  - Connective tissue.
  - Macrophages.
  - Granulation tissue.
  - Granuloma formation.
- Key: a**  
**Ref: Acute and Chronic Inflammation.**
10. Granuloma formation is most frequently associated with:
- The healing process.
  - Acute inflammation.
  - Wound contraction.
  - Fibroblasts and neovascularization.
  - A persistent irritant.
- Key: e**  
**Ref: Acute and Chronic Inflammation.**
11. Morphologic changes seen in chronic non-specific inflammation include an increase in:
- Neutrophils, lymphocytes and liquefaction necrosis.
  - Neutrophils, macrophages and fibrosis.
  - Lymphocytes, plasma cells and fibrosis.
  - Giant cells, macrophages and coagulative necrosis.
- Key: c**  
**Ref: Acute and Chronic Inflammation.**

**BDS SECOND PROFESSIONAL EXAMINATION 2007**  
**GENERAL PATHOLOGY AND MICROBIOLOGY**  
**MODEL PAPER (MCQs)**

- 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, stitched-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.**

**BDS SECOND PROFESSIONAL EXAMINATION 2007**  
**GENERAL PATHOLOGY AND MICROBIOLOGY**  
**MODEL PAPER (MCQs)**

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:
- Homogentisate oxidase.
  - Phenyl Alanine oxidase.
  - P-hydroxyphenyl pyruvate hydroxylase.
  - Tyrosinase.
  - $\alpha$ -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:
- Cells of the mass infiltrate a narrow band of the tunica albuginea.
  - Two mitosis are found in every (HPF) high power field of microscope.
  - Nuclei are viable in size and tend to stain.
  - X-ray shows 2 round nodules in the left lung field and one in the right, were not present 2 years ago.
  - 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:
- Anagenital carcinoma – HPV (Type 16 & 18).
  - Burkitts lymphoma - EBV.
  - Hepatocellular carcinoma - Hepatitis A virus.
  - Carcinoma stomach - Helicobacter pylori.
  - Squamous cell carcinoma skin – Ultraviolet radiation.
- Key: c**  
**Ref: Neoplasia.**
20. Which of the following terms refer to a malignant tumor of mesenchymal origin:
- Carcinoma.
  - Hepatoma.
  - Hematoma.
  - Sarcoma.
  - Teratoma.
- Key: d**  
**Ref: Neoplasia.**
21. Grading of cancer is based on which of the following statements:
- Size of the primary tumor.
  - Spread of cancer cells to regional lymph nodes.
  - Presence of blood born metastasis.
  - Degree of differentiation of tumor cells, anaplasia and no. of mitosis.
  - Presence of capsular invasion by tumor cells.
- Key: d**  
**Ref: Neoplasia.**

**BDS SECOND PROFESSIONAL EXAMINATION 2007**  
**GENERAL PATHOLOGY AND MICROBIOLOGY**  
**MODEL PAPER (MCQs)**

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 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) 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 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.**

**BDS SECOND PROFESSIONAL EXAMINATION 2007**  
**GENERAL PATHOLOGY AND MICROBIOLOGY**  
**MODEL PAPER (MCQs)**

- 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) 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) Lipoteichoic 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 C<sub>3</sub>:**
- a) Pyogenic infection.
  - b) Immune complex disease.
  - c) Systemic lupus erythematosus.
  - d) Glomerulonephritis.
  - e) Xeroderma pigmentosum.
- Key: a**  
**Ref: Virology.**

**BDS SECOND PROFESSIONAL EXAMINATION 2007**  
**GENERAL PATHOLOGY AND MICROBIOLOGY**  
**MODEL PAPER (MCQs)**

34. Which of the following components enhances the binding of antigen antibody complex to macrophages:
- a) C1.
  - b) C3a.
  - c) C3b.
  - d) C8.
  - e) Cb<sub>6,7</sub> 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.**

**BDS SECOND PROFESSIONAL EXAMINATION 2007**  
**GENERAL PATHOLOGY AND MICROBIOLOGY**  
**MODEL PAPER (MCQs)**

40. Which of the following is a RNA virus:
- Human papilloma virus.
  - Human T-cell leukaemia virus.
  - Hepatitis B virus.
  - Epstein Barr virus.
  - Cytomegalo virus.
- Key: b**  
**Ref: Virology.**
41. The antiphagocytic property of the group A streptococcus is associated with which of the following:
- Hyaluromidase.
  - Streptolysin S.
  - M. protein.
  - Peptidoglycan.
  - C carbohydrate.
- Key: c**  
**Ref: Microbiology (General and Systemic).**
42. Which of the following is correct sequence of steps in performing Gm. Stain:
- Safranin stain, crystal violet stain, iodine solution.
  - Crystal violet stain, decolorization, safranin stain, iodine solution.
  - Safranin stain, iodine solution, decolorization, crystal violet stain.
  - Crystal violet stain, iodine solution, decolorization, safranin stain.
  - 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:
- VDRL Test.
  - FTA-ABS.
  - Microhemagglutinine.
  - Dark field examination of chancre material.
  - 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:
- Vibrio cholerae.
  - Enterotoxigenic E. coli.
  - Shigella sonnei.
  - Clostridium botulinum.
  - Pseudomonas aeruginosa.
- Key: c**  
**Ref: Microbiology (General and Systemic).**
45. Which of the following tests does not correspond with the respective disease:
- Casoni's Test for Hydatid disease.
  - Frei's Test in Infectious mononucleosis.
  - Schick's Test for Diphtheria.
  - Wasserman's Test for syphilis.
  - Widal Test for typhoid.
- Key: b**  
**Ref: Microbiology (General and Systemic).**