



**DK-003-038102**

Seat No. \_\_\_\_\_

**B. Voc. (Medical Laboratory & Molecular  
Diagnostic Technology) (Sem. I) (CBCS) Examination**

**April / May - 2015**

**MLMDT-102 : General Pathology**

**Faculty Code : 003**

**Subject Code : 038102**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

- Instructions :**
- (1) All questions are compulsory.
  - (2) The paper is divided in two sections.
  - (3) There is no separate OMR sheet will be provided for Section I.
  - (4) Figures on right indicate marks.

**SECTION - I**

- 1** Answer the following MCQ : **20**
- (1) Which of the following proteins are produced during stress conditions
    - (a) Heat shock protein
    - (b) Haemosiderin
    - (c) Both of the above
    - (d) None of the above
  - (2) Hyperplasia means :
    - (a) Excessive motility of a muscle
    - (b) Voracious eating
    - (c) Abnormal increase in number of cells
    - (d) An increase in size of a cell
  - (3) Out of various free radical species the following radical is most reactive
    - (a) Superoxide- $O_2^-$
    - (b) Hydrogen peroxide- $H_2O_2$
    - (c) Hydroxyl- $OH^-$
    - (d) Nitric oxide-NO

- (4) Generalized edema results from all the following EXCEPT :
- (a) Systemic hypertension
  - (b) Liver cirrhosis
  - (c) Congestive heart failure.
  - (d) Nephrotic syndrome.
- (5) The most common site of venous thrombosis is :
- (a) Brain
  - (b) Legs
  - (c) Kidney
  - (d) Liver
- (6) The spleen, kidney, intestine and brain are all vulnerable to \_\_\_\_\_ emboli.
- (a) Venous
  - (b) Pulmonary
  - (c) Arterial
  - (d) Saddle
- (7) Phagocytes have receptors for
- (a) Complement C3b
  - (b) Apoptotic cells
  - (c) PAMPs
  - (d) ICAM1
- (8) Which of the following events in acute inflammation occurs first ?
- (a) Chemotaxis
  - (b) Margination
  - (c) Emigration
  - (d) Vasodilation

- (9) In tuberculosis which of the following inflammation occurs
- (a) Granulomatous inflammation
  - (b) Non-specific inflammation
  - (c) Acute inflammation
  - (d) Proliferative inflammation
- (10) A malignant epithelial cell neoplasm derived from any of the three(e) germ layers is referred to as :
- (a) Sarcoma
  - (b) Teratoma
  - (c) Carcinoma
  - (d) Mixed cell tumor
- (11) Which of the following is not used as a means of distinguishing a benign from a malignant neoplasm?
- (a) Degree of cellular differentiation
  - (b) Type and amount of necrosis
  - (c) Rate of growth
  - (d) Evidence of metastasis
- (12) Which of the following is an example of direct acting carcinogens
- (a) Alkylating agent
  - (b) Polyvinyl chloride
  - (c) Polycyclic aromatic hydrocarbons
  - (d) Insecticides
- (13) Teratogens are defined as agents which induce :
- (a) Mitosis
  - (b) Carcinogenesis
  - (c) Birth defects
  - (d) Fallot's tetralogy

- (14) Which of the following disease is not an example of aneuploidy
- (a) Down's syndrome
  - (b) Cri du chat syndrome
  - (c) Klinefelter's syndrome
  - (d) Turner's syndrome
- (15) Mutations affecting germ cells produce :
- (a) Cancers
  - (b) Inherited diseases
  - (c) Congenital malformations
  - (d) Aneuploidy
- (16) Full form of COPD is
- (a) Chronic Obstructive Pulmonary Disease
  - (b) Coronary Obstructive Pediatric Disease
  - (c) Chronic Obstructive Pediatric Disease
  - (d) Coronary Obstructive Pulmonary Disease
- (17) The cause of lung cancer Mesothelioma is :
- (a) Asbestos
  - (b) Mercury
  - (c) Arsenic
  - (d) Chromium
- (18) The main function of vitamin E is
- (a) Immune regulation
  - (b) Hepatic microsomal carboxylation
  - (c) Antioxidant activity
  - (d) Maintenance of structure and function of epithelia

- (19) Cellular swelling occurs due to
- (a) Low intracellular pH
  - (b) Low protein synthesis
  - (c) Damage to Na<sup>+</sup> pump in plasma membrane
  - (d) None of the above
- (20) A large scavenger cell present in connective tissue and many major organs and tissues, including the bone marrow, spleen, lymph nodes, liver, and the central nervous system.
- (a) Plasma cell
  - (b) Neutrophil
  - (c) Lymphocyte
  - (d) Macrophage

## SECTION - II

- 2** (a) Answer in brief : (Any 3) **3×2=6**
- (1) Write definition and causes of Fatty liver.
  - (2) Define : Hyperemia and congestion.
  - (3) What is the difference between simple (closed) and compound wound ?
  - (4) Define Metastasis and write its major routes.
  - (5) Define developmental defects with two examples.
  - (6) What are the harmful effects of smoking ?
- (b) Answer in brief : (Any 3) **3×3=9**
- (1) How are free radicals generated ?
  - (2) Define with examples metabolic acidosis and metabolic alkalosis.
  - (3) Write the function of all 3 types of bone cells.

- (4) Explain the role of tumor suppressor genes in malignancy with examples.
- (5) What is aneuploidy? Give two examples.
- (6) What is iatrogenic drug injury ?

(c) Answer in detail : (Any 2) **2×5=10**

- (1) Explain pathogenesis of reversible cell injury.
- (2) Write a note on pathophysiology of thrombosis.
- (3) Explain various steps of phagocytosis.
- (4) Explain the mechanism of metastasis.
- (5) Discuss numerical abnormality of chromosomes.

**3** (a) Answer in brief : (Any 3) **3×2=6**

- (1) Enlist the morphologic changes in reversible injury.
- (2) Define Shock and classify it.
- (3) Explain granulation tissue formation in wound healing.
- (4) Write microscopic difference between benign and malignant tumor.
- (5) What is Niemann pick disease?
- (6) Write importance of Vitamin C.

(b) Answer in brief : (Any 3) **3×3=9**

- (1) Define necrosis and explain the changes occurring in the cell.
- (2) Enlist various agents which are responsible for causing inflammation.
- (3) What is dehydration and over hydration?
- (4) What is grading and staging of cancer.
- (5) What is mutation ? Write the types of mutation.
- (6) Define factors responsible for Environmental pollution. Give examples.

(c) Answer in detail : (Any 2)

**2×5=10**

- (1) Describe cellular adaptations.
  - (2) Write a note on pathogenesis of oedema.
  - (3) Describe in detail about the cellular events of acute inflammation.
  - (4) Describe molecular pathogenesis of cancer.
  - (5) Discuss deficiency disorders of any two fat soluble vitamins.
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