Choose the correct answer: (1 mark each)

1. Left sided heart failure is manifested by:
   a) Hepatomegaly   b) Chest pain and bradycardia.
   c) Peripheral edema d) Dyspnea and tachycardia

2. The rapid depolarization phase of an action potential in heart muscle is caused by:
   a) Sudden increase in permeability of the membrane to sodium.
   b) Decrease in permeability of the membrane to potassium.
   c) Decrease in the sodium pumping rate.
   d) Sudden increase in permeability of the membrane to potassium.

3. Secondary hypertension may result from:
   a) Renal artery stenosis   b) Sedentary lifestyle
   c) Stress d) Hereditary factors.

4. Which of the following factors is not a predisposing factor for arteriosclerosis?
   a) Diabetes mellitus   b) Hypertension
   c) Heredity d) Anemia

5. In diabetic ketoacidosis all of the following features are true except:
   a) polyuria   b) Wet tongue
   c) Acetone smell d) Rapid deep respiration

6. Loss of which of the following is a major factor in the pathophysiology of nephrotic syndrome?
   a) Potassium   b) Protein
   c) Urea d) Sodium
7. The most common type of childhood leukemia is:
   a) AML  b) CLL  c) ALL  d) CML

8. Patterns of metastasis include all of the following except:
   a) Lymphatic spread  b) Hematologic spread
   c) Tumour-specific spread  d) Local spread

9. A benign neoplasm of glandular epithelial origin would be termed:
   a) An adenoma  b) A myoma
   c) An adenocarcinoma  d) A chondroma

10. Hodgkin’s disease, a lymphoproliferative disease, will usually be diagnosed by:
   a) A blood test  b) A tissue biopsy
   c) Both a and b  d) Neither a nor b

11. The most common type of headache is:
   a) Classic migraine  b) Cluster headache
   c) Tension headache  d) Inflammatory headache

12. Conditions predisposing to candida infections include all of the following except:
   a) Patients receiving corticosteroids
   b) Patients receiving broad spectrum antibiotics
   c) Patients suffering from diabetes mellitus
   d) Patients suffering from thyrotoxicosis

13. Food poisoning that results in motor paralysis within 24 hours is most likely due to:
   a) Clostridium botulinum toxin
   b) Staphylococcal toxin
   c) Salmonellosis
   d) Shigellosis

14. There is a negligible risk of person-to-person spread of infection in:
   a) Mumps  b) Measles
   c) Influenza  d) Brucellosis

15. Characteristic features of typhoid fever include all of the following except:
   a) Polymorph leucocytosis  b) Constipation
   c) Headache  d) Splenomegally
II. Circle (T) for true and (F) for false statements: (10 marks)

T F 1. Calcitonin is a hormone secreted by the parathyroid gland in response to lowered serum calcium level.

T F 2. Widal test is used for the diagnosis of enteric fever.

T F 3. Brucellosis is a bacterial infection which is transmitted by sexual intercourse.

T F 4. Central cyanosis appears in the tongue and peripheral tissues.

T F 5. The pathological lesion in the lung in cases of pneumonia is lung consolidation.

T F 6. Orthopnea means dyspnea on severe exertion.

T F 7. Cholera is a diarrheal illness characterized by rice water stools.

T F 8. In herpes zoster, the skin lesions follow the nerve root distribution.

T F 9. Opportunisitic infections are often caused by highly pathogenic organisms in patients with low immunity.

T F 10. Dysuria means painful defecation.

III. Match the disease in column A with its characteristic sign in column B: (5 marks)

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ____ Tinea versicolour</td>
<td>A. Risus sardonicus</td>
</tr>
<tr>
<td>2. ____ Meningitis</td>
<td>B. Neck regidity</td>
</tr>
<tr>
<td>3. ____ Syphilis</td>
<td>C. Severe dehydration</td>
</tr>
<tr>
<td>4. ____ Tetanus</td>
<td>D. Chancre (Penis indurated ulcer)</td>
</tr>
<tr>
<td>5. ____ Cholera</td>
<td>E. Pale or pigmented macules mostly on the trunk.</td>
</tr>
</tbody>
</table>
IV. Match the following: (5 marks)
1. ______ Aplasia   2. ______ Hyperplasia
3. ______ Metaplasia   4. ______ Dysplasia
5. ______ Neoplasia

A) Abnormal degree of variation in size, shape and appearance of cells with an abnormal arrangement.

B) Formation of an abnormal mass of proliferating cells, possessing a significant degree of autonomy.

C) Increase in the absolute number of cells, leading to an increase in the size of that tissue or organ.

D) Transformation of a mature type of tissue into another mature type of tissue of the same category.

E) Failure of a structure to grow in the course of organogenesis.

V. Complete the following: (10 marks)
1. Diseases caused by bacteria and usually spread via the faecal-oral route include ___________ and ___________
2. Sexually-transmitted viral diseases include __________ and __________
3. An example of protozoa which could be transmitted by sexual intercourse is __________
4. Dysphagia means ________________________________
5. Melena means ___________________________________
6. Stress incontinence means _____________________________
7. Nosocomial infections means ________________________
8. Tetanus neonatorum is usually due to infection of __________________
9. Community acquired meningococcal meningitis is usually transmitted by ______________________
10. Slow rise of fever, rose spots on the trunk and splenomegally are typical features of __________________
VI. Define the following: (5 marks)

1. Ascitis: ______________________________________
   ______________________________________________

2. Digital clubbing ________________________________
   ______________________________________________

3. Leukemia ________________________________
   ______________________________________________

4. Tumour markers ____________________________
   ______________________________________________

4. Antibiotic associated colitis __________________
   ______________________________________________

VII. Write a short account of: (4 marks each)

1. Pathophysiological mechanisms of diarrhea:
   ______________________________________________
   ______________________________________________
   ______________________________________________
   ______________________________________________
   ______________________________________________

   ______________________________________________
   ______________________________________________
   ______________________________________________
   ______________________________________________
   ______________________________________________
3. Causes and clinical manifestations of gout:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. Symptomatology of acute leukaemia:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

5. Mechanisms of arrhythmogenesis:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
VIII. Compare between the following: (10 marks)

1) Osteomalacia versus osteoporosis:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2) Ischemia versus infarction:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3) Type I versus type II diabetes mellitus:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4) Benign versus malignant tumours:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

5) Classic versus common migraine headache:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________