

38. Which of the following statement is not correct for acute lymphoblastic leukemia :

- (1) CNS manifestations may be present.
- (2) It has BCR-ABL fusion gene of 210 KD.
- (3) Surface expression is positive for TdT .
- (4) It has numerical chromosomal change

39. Increased incidence of malignant tumour in ataxia telangiectasia is due to :

- (1) Defective DNA repair
- (2) Mutatuion of p53 gene
- (3) Mutation of RAS gene
- (4) Polymorphism of P-450 locus

40. Monoclonal antibody to CD20.(Rituximab)is used in the treatment of :

- (1) Carcinoma breast
- (2) Lymphoma
- (3) Hashimoto's thyroiditis
- (4) Sjogren's syndrome

Attempt any five questions. Write answer in 150-200 words. Each question carries 16 marks. Answer each question on separate page, after writing Question Number.

1. Tubercular meningitis.
2. Erythrocytic sedimentation rate (ESR)
3. Anti Neutrophil Cytoplasmic Auto-antibody (ANCA).
4. Glycosylated haemoglobin (HbA1c).
5. Reed Sternberg cell.
6. Bence Jones Protein.
7. Tumour markers in serum.
8. Osteoclastoma.
9. Demonstration of amyloid in tissue.
10. Peripheral blood and bone marrow finding of megaloblastic anaemia.

Question Booklet No.

(To be filled up by the candidate by **blue/black ball-point pen**)Roll No.

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Roll No. (Write the digits in words)

Serial No. of OMR Answer Sheet

Day and Date

(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES(Use only **blue/black ball-point pen** in the space above and on both sides of the **Answer Sheet**)

1. Within 10 minutes of the issue of the Question Booklet, Please ensure that you have got the correct booklet and it contains all the pages in correct sequence and no page/question is missing. In case of faulty Question Booklet, bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
2. Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card without its envelope*.
3. *A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided.*
4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
5. *On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.*
6. *No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and Roll No. and OMR sheet No. on the Question Booklet.*
7. *Any changes in the aforesaid-entries is to be verified by the invigilator, otherwise it will be taken as unfair means.*
8. *This Booklet contains 40 multiple choice questions followed by 10 short answer questions. For each MCQ, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet. For answering any five short Answer Questions use five Blank pages attached at the end of this Question Booklet.*
9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. *Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).*
11. For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet.
12. Deposit *both OMR Answer Sheet and Question Booklet* at the end of the Test.
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

Total No. of Printed Pages : 15

1. Klinefelter syndrome has the following genetic make up :
 - (1) 44 autosomes +xxy
 - (2) 44 autosomes + xo
 - (3) 45 autosomes + xx
 - (4) 45 autosomes + xy

2. Which of the following statement is incorrect related to 'Sickle cell Anaemia'
 - (1) It is a autosomal recessive linked disorder
 - (2) It is due to a single base mutation of B globulin gene.
 - (3) It is inherited in whose one of the parent is carrier and other normal
 - (4) It changes shape of RBC from Round to sickle

3. Which property does not belong to cytokines :
 - (1) Pleiotropy
 - (2) Redundancy
 - (3) Synergy
 - (4) Specificity

4. What is the most likely organism in Patient with common variable immunodeficiency presenting with pneumonia :
 - (1) Aspergillus
 - (2) Pneumococcus
 - (3) Mycoplasma
 - (4) CMV

5. Which of the following is a mechanical barrier to conception :
 - (1) Condom
 - (2) Abortion
 - (3) Cu T
 - (4) oral pill

6. By studying analogous structures we look for :
- (1) similarities in organ structure
 - (2) similarities in cell make-up
 - (3) similarities in appearance and function but different in structure
 - (4) similarities in appearance that differences in functions
7. Which prediction from the fossil record is in agreement with the theory of evolution ?
- (1) Unicellular organisms are first found in strata above
 - (2) multicellular fossils.
 - (3) Land animals appear earlier than Land plants in the fossil record. Reptiles appear earlier an insects in the fossil record.
 - (4) Prokaryote fossils appear earlier than eukaryote fossils.
8. Ductless glands are known as :
- | | |
|----------------------|---------------------|
| (1) Digestive Glands | (2) Milk Glands |
| (3) Endocrine Glands | (4) Exocrine Glands |
9. Virus is chemically composed of :
- (1) Starch and Protein
 - (2) Fat and nucleic acid
 - (3) D.N.A. and lipids
 - (4) Protein and Nucleic Acid
10. Thyroxin hormone is secreted by :
- | | |
|-------------|---------------|
| (1) Thyroid | (2) Pituitary |
| (3) Adrenal | (4) Ovary |

11. Which of the following cell shows more hyperplasia
 (1) Nerve (2) Muscle (3) Endometrium (4) Cartilage
12. Which version is correct about metaplasia ?
 (1) Metaplasia is due to increase in number of the cells.
 (2) Metaplasia is due to decrease in size of the cells.
 (3) It is due to abnormal persistent proliferation of the cells .
 (4) It is a reversible change in which one differentiated cell is replaced by another cell type.
13. Which pattern is seen in gangrenous necrosis ?
 (1) Coagulative necrosis (2) Liquefactive necrosis
 (3) Caseous necrosis (4) Fibrinoid necrosis
14. Apoptosis is decreased in which of the following conditions :
 (1) Neurodegenerative diseases (2) Ischemic injury
 (3) Cancer (4) Death of viral infected cell
15. Fatty change in liver is caused by :
 (1) Alcohol (2) Diabetes mellitus
 (3) Protein malnutrition (4) All of the above
16. Yellow brown pigment in cardiac muscle in elderly person is due to :
 (1) Melanin (2) Bilirubin (3) Haemosiderin (4) Lipofuscin
17. In which disease leukocytosis is not seen :
 (1) Acute appendicitis (2) Lobar pneumonia
 (3) Typhoid fever (4) Myocardial infarction
18. In iron deficiency anemia all the following features are present except :
 (1) Serum iron is low (2) Serum ferritin is low
 (3) HbA2 is increased (4) Iron binding capacity is high
19. In cyanmethemoglobin method, all hemoglobins except one are converted to cyanmethemoglobin :
 (1) Carboxy hemoglobin (2) Sulfhemoglobin
 (3) Carbamino hemoglobin (4) None of the above

20. Dense neurosecretory granules are present in cells of which of the following :
- (1) Squamous cell carcinoma (2) Small cell carcinoma of lung
(3) Vasculitis (4) Diabetes mellitus
21. Which of the following tumour in stomach is associated with Helicobacter pylori infection :
- (1) Carcinoid tumour (2) Gastrointestinal stromal tumour
(3) Linitis plastica (4) Lymphoma stomach
22. Which of the following feature is not present in chronic ulcerative colitis :
- (1) Crypt abscess (2) Pseudopolyps
(3) Granuloma (4) Ulcers in mucosa
23. Hemochromatosis can produce :
- (1) Cirrhosis of liver (2) Diabetes mellitus
(3) Skin pigmentation (4) All of the above
24. "Tram Track" appearance of glomerular basement membrane is seen in :
- (1) Endocapillary glomerulonephritis
(2) Crescentic glomerulonephritis
(3) Membranous glomerulonephritis
(4) Mesangiocapillary glomerulonephritis
25. Which of the following is not responsible for oedema in nephrotic syndrome :
- (1) Decreased plasma protein (2) Increased plasma osmotic pressure
(3) Lymphatic obstruction (4) Sodium and water retention
26. Prothrombin time assesses function of which type of protein :
- (1) Factor VII, X, II, V & fibrinogen
(2) Factor XII, XI, IX, VIII, X, V, II & fibrinogen
(3) Plasmin
(4) Vitamin K
27. Which of the following does not produce hypercoagulability :
- (1) Antiphospholipid antibody (2) Unfractionated heparin
(3) Nephrotic syndrome (4) Tissue plasminogen activator

28. What is the site where red infarcts are usually not seen :
 (1) Ovary (2) Lung (3) Heart (4) Small intestine
29. Which of the following disease does not belong to X-linked recessive disorder ?
 (1) G6PD deficiency (2) Myotonic dystrophy
 (3) Wiskott-Aldrich syndrome (4) Lesch-Nyhan syndrome
30. Karyotype found in Down's syndrome is :
 (1) 47XX+21 (2) 47XX+18 (3) 47XX Y (4) 45X
31. MHC class II antigen presents antigen to :
 (1) T helper cells (2) T cytotoxic cells
 (3) Natural killer cells (4) Macrophages
32. Which test is most important for renal transplant patients :
 (1) HLA matching between donor and recipient
 (2) ABO matching between donor and recipient
 (3) B cell cross match
 (4) T cell cross match
33. Cancer which embolizes through paravertebral plexus is of :
 (1) Stomach (2) Prostate (3) Breast (4) Ovary
34. Which of the following infection is not transmitted by transplacental route :
 (1) Parvovirus 819 (2) *Listeria monocytogenes*
 (3) *Toxoplasma gondii* (4) *Nocardia brasiliensis*
35. Which of the following biomarker is more specific for diagnosis of myocardial infarction :
 (1) Troponins T & I (2) CK-MB
 (3) LDH (4) High leukocyte count
36. Diagnostic feature of Hashimoto's thyroiditis is :
 (1) Lymphocytic infiltration between thyroid follicular cells
 (2) Lymphocytic infiltration and Hurthle cell change
 (3) Dilated follicles filled with colloid
 (4) Atrophied thyroid follicle
37. Diabetes mellitus is diagnosed when :
 (1) Fasting blood sugar is ≥ 126 mg/dl.
 (2) Postprandial blood sugar is >140 mg/dl
 (3) Urine sugar test is positive.
 (4) Fasting blood sugar is ≥ 126 mg/dl on more than one occasion.