



All India Institute of Medical Sciences, Bhubaneswar
2nd Professional MBBS Final Examination 2019 (Old Batch)
Pathology Paper - I

Section - C

Multiple Choice Questions:

(10x1=10)

1. Which of the following is the primary cell of response in acute inflammation:
 - a. Lymphocytes
 - b. Macrophages
 - c. Neutrophils
 - d. Plasma cells

2. Which genotype of HPV is responsible of cancer cervix:
 - a. HPV 16 & 11
 - b. HPV 16 & 18
 - c. HPV 8 & 6
 - d. HPV 9 & 31

3. A 50-year-old male underwent a partial hepatectomy for a tumour. The residual liver is likely to show which of the following adaptive responses:
 - a. Regeneration
 - b. Repair
 - c. Metaplasia
 - d. Neoplastic change

4. Enzyme which prevents aging is:
 - a. Catalase
 - b. Superoxide dismutase
 - c. Mettalloproteinase
 - d. Telomerase

(P. T. O)



5. Following are precancerous conditions except:
- Chronic atrophic gastritis
 - Leukoplakia
 - Chronic ulcerative colitis
 - Chronic granulomatous disorder
6. Diabetic foot is an example of:
- Dry gangrene
 - Wet gangrene
 - Gas gangrene
 - Necrotising inflammation
7. In case of renal failure on long-term haemodialysis, there is deposition of following type of amyloid:
- Amyloid light chain (AL)
 - Amyloid-associated protein (AA)
 - Amyloid β 2 microglobulin (A β 2m)
 - β amyloid protein (A β)
8. The term 'Port wine stain' in children is seen in which of the following?
- Sacrococcygeal teratoma
 - Tuberculosis
 - Sarcoidosis
 - Hemangioma
9. The following antibody-stain is used in immunohistochemistry to identify epithelial cells:
- Desmin
 - Vimentin
 - Cytokeratin
 - Neurofilaments
10. Verocay bodies are seen in:
- Schwannoma
 - Neurofibroma
 - Meningioma
 - Astrocytoma

***** The End *****



All India Institute of Medical Sciences, Bhubaneswar
2nd Professional MBBS Examination 2018

Time : 3 Hrs

Pathology (Paper-I)

Max. Marks: 75

Answer all the questions. Draw the diagrams wherever necessary. Use separate answer sheets for Section A & B.

Section - A

1. SHORT ANSWER QUESTIONS:

(4x2=8)

- Define apoptosis and give two examples.
- Mention the different phases of cell cycle with labelled diagram and mention two examples of stable cell.
- Virchow's triad.
- Write the differences between dystrophic and metastatic calcification.

2. SHORT NOTES:

(5x3=15)

- Define necrosis. write the types of necrosis with examples.
 - Niemann Pick disease.
 - Describe the pathogenesis of type-IV hypersensitivity reaction.
 - What is Phagocytosis? Draw a labelled diagram mentioning the different steps of it.
 - Illustrate with a labelled diagram the hematogenous metastatic cascade.
- 3. Define inflammation. Describe the vascular and cellular events of acute inflammation. Enumerate the chemical mediators of inflammation. (1+4+2=7)**

Section - B

4. VERY SHORT ANSWER QUESTION:

(5x2=10)

- Enumerate the various chronic myeloproliferative neoplasm and mention the molecular marker of each type.
- Complications of mismatched blood transfusion.
- Enumerate four inherited hypercoagulable conditions.
- Mention the morphological differences between myeloblasts and lymphoblasts.
- Pathogenesis of Thrombotic thrombocytopenic Purpura.

(P.T.O)

5. SHORT ANSWER QUESTION:

(5x3=15)

- a. Define & classify anemias according to the morphology of RBC.
- b. Peripheral smear and bone marrow picture in megaloblastic anemia.
- c. Mention the laboratory findings in iron deficiency anemia.
- d. HbH disease
- e. Write the WHO Classification of Acute myeloid Leukemia.

6. A 60 year old male patient presented with low backache. Plain X-ray showed multiple lytic bony lesions. Routine CBC showed. **(5)**

Hb - 9 gm%

TLC - 9500/cmm

Platelet - 1.5 lakh/mm³

ESR - 150 mm in 1st hour

- a. What is the diagnosis? Explain with reasons. **(1)**
- b. Mention the bone marrow finding in this case. **(2)**
- c. Mention other relevant investigations for confirmation of the diagnosis. **(2)**



All India Institute of Medical Sciences, Bhubaneswar

2nd Professional MBBS Examination 2018

Time : 3 Hrs

Pathology (Paper-II)

Max. Marks: 75



(18)

Answer all the questions. Draw the diagrams wherever necessary.
Use separate answer sheets for Section A & B.

Section - A

Q1. WRITE SHORT ANSWERS:

(1x5=5)

- Mention the virulence factors of *H.pylori* causing chronic gastritis.
- Draw a labelled diagram of the biomarkers in acute myocardial infarction
- Define nephrotic syndrome.
- Draw a sketch diagram mentioning the potential outcomes of hepatitis B infection in adults.
- Mention the types of small vessel vasculitis.

Q2. WRITE SHORT NOTES:

(4x5=20)

- Draw a labelled diagram showing the different types of vegetative endocarditis.
- What is neonatal cholestasis and mention the important causes.
- Mention the proposed pathways in the pathogenesis of acute pancreatitis.
- Describe the gross and microscopic features of Crohn disease.
- Define pneumoconiosis and mention its different types.

Q3. 32 year old female present with fever, joint pain & erythematous patch on face and bridge of nose.

(2+3=5)

- What is your diagnosis? Explain with reasons.
- Mention the morphological changes seen in kidney.

(P.T.O)

Section - B

Q4. WRITE SHORT NOTES:

(4x6=24)

- a. Prognostic factors in breast cancer.
- b. Mention in brief the microvascular complications of diabetes mellitus.
- c. Mention in brief the pathogenesis of endometrial carcinoma.
- d. Write in tabular format difference between pyogenic and tubercular meningitis.
- e. Meningioma
- f. Pathogenesis of benign hyperplasia of prostate

Q5. 10 year old boy came with the complaints of fever, painful swelling on the right lower leg. X-ray reveals onion skin appearance of the shaft of tibia.

(2+1+3=6)

- a. What is your diagnosis and give 2 reasons in support of your diagnosis
- b. Mention the molecular basis of the above conditions.
- c. Draw a labelled diagram of the microscopic findings in the above condition.



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All India Institute of Medical Sciences, Bhubaneswar
2nd Professional MBBS Supplementary Examination 2017

Time : 3 Hrs

Pathology (Paper-I)

Max. Marks: 75

Answer all the questions. Draw the diagrams wherever necessary. Use separate answer sheets for Section A & B.

Section - A

Q1. WRITE SHORT ANSWERS:

(1x5=5)

- What is metaplasia? Give two examples
- Enlist the examples of malignant tumours ending with_oma
- Mention two oncogenic DNA viruses
- What is an embolus? Mention the different types of emboli
- Mention two tumour suppressor genes

Q2. WRITE SHORT NOTES:

(3x5=15)

- Mention the differences between necrosis & apoptosis.
- Turner syndrome.
- Draw a labelled diagram of mast cell activation in type I hypersensitivity reaction
- Write in tabular form the differences between acute and chronic inflammation.
- Define metastasis? Mention the different modes of metastasis.

Q3. A 65 year old male, a known diabetic, presented with sudden onset acute pain abdomen, vomiting and bleeding per rectum. Plain X ray abdomen showed a distended and thinned out small bowel segment. At laparotomy, a 25 cm of small bowel segment was found to be congested and discoloured with serosal exudates. A segmental resection and end to end anastomosis was performed.

(2+3+5=10)

- What is the diagnosis?
- Discuss the gross and microscopic appearance in this condition.
- Enumerate with examples different type of necrosis seen in different conditions.

(P.T.O)



Section - B

Q4. WRITE SHORT NOTES:

(5x5=25)

- a. Leukemoid reaction
- b. Differential diagnoses of microcytic hypochromic anemia
- c. Von Willebrand disease.
- d. Write the blood findings in chronic myeloid leukemia
- e. Transfusion reaction

Q5. A 60 year male came to the hospital with C/O fever, weakness, and abdominal distension for past few months. On examination, there was anemia and massive splenomegaly. Routine haematological investigations revealed.

(2+1+2=5)

Hb - 9.0 gm/dl
TLC - 1,10,500/mm³
TPC - 4 lakhs/mm³

- a. What is your diagnosis and why?
- b. Mention the chromosomal translocation in this case.
- c. What are the different phases of the disease?



All India Institute of Medical Sciences, Bhubaneswar
2nd Professional MBBS Supplementary Examination 2017
Pathology (Paper-I)

Time : 3 Hrs

Max. Marks: 75

Section - C

Write the most appropriate answer (against the question Nos. : a/b/c/d) in the Main Answer Sheet (Section-A).

Multiple Choice Questions:

(1x15=15)

1. Which of the following is the primary cell of response in acute inflammation:
 - a. Lymphocytes
 - b. Macrophages
 - c. Neutrophils
 - d. Plasma cells
2. Test useful for detection of HIV during window period :
 - a. ELISA
 - b. Westrn blot
 - c. CD4+ cell count
 - d. p24 antigen capture assay
3. Which genotype of HPV is responsible of cancer cervix:
 - a. HPV 16 & 11
 - b. HPV 16 & 18
 - c. HPV 8 & 6
 - d. HPV 9 & 31
4. A 50 year old male underwent a partial hepatectomy for a tumour. The residual liver is likely to show which of the following adaptive responses:
 - a. Regeneration
 - b. Repair
 - c. Metaplasia
 - d. Neoplastic change
5. Enzyme which prevents aging is:
 - a. Catalase
 - b. Superoxide dismutase
 - c. Mettalloproteinase
 - d. Telomerase
6. Following are precancerous conditions except:
 - a. Chronic atrophic gastritis
 - b. Leukoplakia
 - c. Chronic ulcerative colitis
 - d. Chronic granulomatous disorder
7. Diabetic foot is an example of:
 - a. Dry gangrene
 - b. Wet gangrene
 - c. Gas gangrene
 - d. Necrotising inflammation



(P.T.O)

8. In Plummer Vinson Syndrome, the morphology of RBCs seen is
- Microcytic hypochromic
 - Normocytic normochromic
 - Microcytic normochromic
 - Macrocytic hypochromic
9. In case of renal failure on long-term haemodialysis, there is deposition of following type of amyloid:
- Amyloid light chain (AL)
 - Amyloid-associated protein (AA)
 - Amyloid β 2 microglobulin (A β 2m)
 - β amyloid protein (A β)
10. The term 'Port wine stain' in children is seen in which of the following?
- Sacroccygeal teratoma
 - Tuberculosis
 - Sarcoidosis
 - Haemangioma
11. CALLA is an antigen that corresponds to which of the following:
- CD 15
 - CD 33
 - CD 10
 - CD 56
12. The following antibody-stain is used in immunohistochemistry to identify epithelial cells:
- Desmin
 - Vimentin
 - Cytokeratin
 - Neurofilaments
13. Lacunar cells are seen predominantly in :
- Nodular sclerosis Hodgkin lymphoma
 - Mixed cellularity Hodgkin lymphoma
 - Nodular lymphocyte predominant Hodgkin lymphoma
 - Lymphocyte predominance Hodgkin lymphoma
14. Verocay bodies are seen in :
- Schwannoma
 - Neurofibroma
 - Meningioma
 - Astrocytoma
15. In Marfan syndrome there is a defect in protein:
- Collagen
 - Elastin
 - Fibrillin
 - Fibronectin

***** The End *****



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All India Institute of Medical Sciences, Bhubaneswar
2nd Professional MBBS Supplementary Examination 2017

Time : 3 Hrs

Pathology (Paper-II)

Max. Marks: 75

**Answer all the questions. Draw the diagrams wherever necessary.
Use separate answer sheets for Section A & B.**

Section - A

Q1. WRITE SHORT ANSWERS:

(4x6=24)

- Mention the various histological types of meningioma
- Classify the germ cell tumours of testis.
- Indication of CSF examination
- Pathogenesis and morphological changes in rheumatoid arthritis.
- Mention the vascular complications of diabetes mellitus.
- Phyllodes tumour

Q2. 20 year old boy came with the complaints of pain, swelling and tenderness on the left knee. X-ray reveals expansile lesion with soap bubble appearance involving upper end of tibia.

(2+4=6)

- What is your diagnosis and give 2 reasons in support of your answer.
- Draw a labelled diagram of the above lesion.

Section - B

Q3. WRITE SHORT ANSWERS:

(1x5=5)

- Mention two gastric lesions associated with H. pylori infection.
- Briefly mention the risk factors of atherosclerosis.
- Mention the various types of renal calculi.
- Mention two benign neoplasms of salivary gland
- Write common causes of cirrhosis

(P.T.O)

Q4. WRITE SHORT NOTES:

(4x5=20)

- a. What is emphysema? Mention the types of emphysema. Draw a schematic diagram of the pathogenesis of the above condition.
- b. What are the hepatotropic viruses? Mention the outcome of hepatitis B infection.
- c. Barrett oesophagus
- d. IgA nephropathy
- e. Mention the differences between nephritic syndrome and nephrotic syndrome

Q5. 35 year old female presented with constricting pain in the chest and profuse sweating. Coronary angiogram showed left anterior descending artery occlusion.

(2+3=5)

- a. What is your diagnosis?
- b. What are the laboratory tests to confirm your diagnosis?



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All India Institute of Medical Sciences, Bhubaneswar
2nd Professional MBBS Supplementary Examination 2017

Time : 3 Hrs

Pathology (Paper-II)

Max. Marks: 75

Section – C

Write the most appropriate answer (against the question Nos. : a/b/c/d) in the Main Answer Sheet (Section-A).

Multiple Choice Questions:

(1x15=15)

1. Pigeon breeder's lung is also known as:
 - a. Hypersensitivity pneumonitis
 - b. Farmer's lung
 - c. Silicosis
 - d. Asbestosis
2. Multiple nodules with 'umbilications' in liver are seen in?
 - a. Cholangiocarcinoma
 - b. Metastatic carcinoma
 - c. Hepatoblastoma
 - d. Hepatocellular Carcinoma
3. The etiologic agent for Creutzfeldt-Jakob disease is :
 - a. HIV
 - b. JC virus
 - c. Prions
 - d. Varicella virus-zoster
4. A one year old female child presented with an abdominal mass. Her 24 hour urinary levels of metanephrine are elevated. Histopathology of the resected mass shows the tumor composed of numerous proliferating small round blue cells with occasional Homer-Wright rosettes. Which of the following is the most likely diagnosis?
 - a. Nephroblastoma
 - b. Hepatoblastoma
 - c. Neuroblastoma
 - d. Osteoblastoma
5. Which of the following are the inclusions seen in a case of Kala-azar?
 - a. Mallory Denk body
 - b. Councilman body
 - c. LD body
 - d. Hirano body
6. A 40 year old male presents with cough, haemoptysis and features of glomerulonephritis. His c-ANCA levels in serum were found to be raised. The most likely diagnosis is:
 - a. Goodpasture syndrome
 - b. Polyarteritis nodosa
 - c. Wegener granulomatosis
 - d. Kawasaki syndrome

(P.T.O)

7. Which of the following is NOT a constituent of the glomerular filtration barrier?
- Basement membrane
 - Podocytes
 - Parietal epithelial cells
 - Endothelial cells
8. Back wash ileitis is seen in:
- Crohn disease
 - Ulcerative colitis
 - Colonic carcinoma
 - Ileal polyp
9. Which of the following is a marker for GIST?
- CD 10
 - S-100
 - CD 1a
 - CD 117
10. BILATERAL breast involvement is commonly seen in which of the following?
- Medullary carcinoma
 - Lobular carcinoma
 - Mucinous carcinoma
 - Ductal carcinoma
11. Which of the following is a diagnostic feature in primary biliary cirrhosis?
- Raised p-ANCA
 - Raised anti mitochondrial antibody
 - Raised anti Smith antibody
 - Raised c-ANCA
12. The following thyroid cancer is a neuroendocrine tumour:
- Papillary carcinoma
 - Follicular carcinoma
 - Medullary carcinoma
 - Anaplastic carcinoma
13. Nutmeg liver is a feature classically described in:
- Acute viral hepatitis
 - Chronic venous congestion
 - Wilson disease
 - Cirrhosis
14. The following conditions are premalignant except:
- Solar keratosis
 - Seborrheic keratosis
 - Bowen disease
 - Xeroderma pigmentosum
15. Codman triangle appearance on X-ray of bone is characteristic of:
- Osteochondroma
 - Osteoclastoma
 - Osteosarcoma
 - Osteoid osteoma



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DR

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHUBANESWAR
2nd PROFESSIONAL MBBS EXAMINATION 2017
PATHOLOGY PAPER - I

MAX MARKS: 75

TIME: 3hrs

Section - A

(4 x 2 = 8)

1. **SHORT ANSWER QUESTIONS:**

- Mention the factors that influence wound healing.
- Write in tabular form the differences between transudate and exudate.
- Define paraneoplastic syndrome with two examples
- Name two genetic diseases that do not follow Mendelian laws of inheritance

(5 x 3=15)

2. **SHORT NOTES:**

- Pathogenesis of septic shock.
- Mechanism of immunologic tolerance. (diagram)
- Write in tabular form the differences between benign and malignant tumor.
- Phagocytosis
- Misfolded proteins

3. A 24-year-old female presented with anemia, bilateral joint pain in knees, ankles and small joints in hands and feet. On examination she had facial rash and punctate erythematous lesions in both the forearms. Her laboratory parameters indicated evidence of thrombocytopenia. She has history of haematuria and urine examination revealed red blood cell casts. (7)

- What is your clinical diagnosis? (1)
- Give two reasons. (1)
- What are the investigations required in this case? (2)
- What are the various possible changes in her renal biopsy? (3)



Section B

4. VERY SHORT ANSWER QUESTION:

(5 x 2=10)

- a. Mention four prognostic markers in acute lymphoblastic leukemia.
- b. Mention four causes of Vitamin B12 deficiency.
- c. Mention two peripheral smear and two bone marrow findings in aplastic anemia.
- d. Mention two qualitative platelet disorder syndromes.
- e. Mention two important molecular markers in the diagnosis of chronic myeloproliferative neoplasms.

3. SHORT ANSWER QUESTION:

(5 x 3=15)

- a. Define & classify anemias
 - b. Leukoerythroblastic blood picture
 - c. Coomb test
 - d. What is the normal eosinophil count. When is a person diagnosed with eosinophilia.
Enlist 4 causes of eosinophilia
 - e. Complications of transfusion
4. A 26-year-old female patient presented with rapid onset high grade fever, bone pain, gum and nose bleed, and severe fatigue of two days duration. On examination, her haemoglobin was 7.8 gm/dl, total leukocyte count- 1,200 cells/cmm, total platelet count- 40,000/cmm, and no palpable spleen. Peripheral blood smear showed 20% atypical cells with cytoplasmic rods. Her coagulation profile was deranged with prolonged PT, APTT, TT, and increased fibrin degradation product (FDP)

(5)

- a. What is the most likely diagnosis? (1)
- b. Enumerate the peripheral smear and bone marrow findings in this case. (2)
- c. Briefly mention the molecular mechanism in this condition. (2)



ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHUBANESWAR
2nd PROFESSIONAL MBBS FINAL EXAMINATION 2017

Time= 3 hrs

PATHOLOGY PAPER I

Total marks =75

Section – C

MULTIPLE CHOICE QUESTIONS:

(1 x 15 = 15)

Instructions: Select **only one answer** out of the choices given for each question and write the correct answer in a separate Answer Sheet .

1. t (8 ; 14) is seen in
 - a. Chronic myeloid leukemia
 - b. Acute myeloid leukemia
 - c. Burkitt lymphoma
 - d. Polycythemia vera
2. Alpha fetoprotein (AFP) is a tumor marker for:
 - a. Choriocarcinoma
 - b. Embryonal carcinoma
 - c. Yolk sac tumor
 - d. Immature teratoma
3. Cell free DNA of mutant p53 in urine is seen in:
 - a. Colon carcinoma
 - b. Pancreatic carcinoma
 - c. Lung carcinoma
 - d. Urothelial carcinoma
4. The basement membrane is mainly composed of which type of collagen.
 - a. Type - I
 - b. Type - IV
 - c. Type - VII
 - d. Type – XI
5. What is the karyotype in Klinefelter syndrome?
 - a. 46, XY
 - b. 46, XX
 - c. 47, XXY
 - d. 45,X
6. The antibody commonly seen in warm antibody autoimmune haemolytic anaemia is :
 - a. IgA
 - b. IgG
 - c. IgM
 - d. IgD
7. Which of the following is NOT an intermediate filament?
 - a. Cytokeratin
 - b. Microtubules
 - c. Vimentin
 - d. Desmin
8. Inherited deficiency of Gp IIb / IIIa results in:
 - a. von Willebrand disease
 - b. Bernard Soulier syndrome
 - c. Glanzmann thrombasthenia
 - d. Hemophilia



9. Glucocerebrosidase enzyme deficiency results in
- Niemann–Pick disease
 - Tay-Sach disease
 - Gaucher disease
 - Mucopolysaccharidoses
10. Chediak- Higashi syndrome is characterised by:
- Absent MPO-H₂O₂ system
 - Defect in leucocyte adhesion
 - Defect in phagolysosome formation
 - Defect in transmigration
11. Which type of amyloidosis is caused by mutation in transthyretin gene?
- Familial Mediterranean fever
 - Familial amyloid polyneuropathies
 - Dialysis associated amyloidosis
 - Senile systemic amyloidosis
12. Dwarf megakaryocytes are a feature of which of the following:
- Primary myelofibrosis
 - Chronic myeloid leukemia
 - Essential thrombocythemia
 - Myelodysplastic syndrome
13. Haemoglobin H disease is associated with
- Deletion of 3 alpha globin genes
 - Deletion of 4 alpha globin genes
 - Deletion of 3 beta globin genes
 - Deletion of 4 beta globin genes
14. JAK2V617F mutation is seen most commonly in:
- Chronic myeloid leukemia
 - Essential thrombocythemia
 - Polycythaemia vera
 - Primary myelofibrosis
15. Variations in nuclear size and staining is known as
- Aneuploidy
 - Pleomorphism
 - Polymorphism
 - Polyploidy



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ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHUBANESWAR
2nd PROFESSIONAL MBBS FINAL EXAMINATION 2017

Time: 3hrs **PATHOLOGY PAPER – II** **Max Marks:75**

Section - A

1. SHORT ANSWER: (5 x 2 =10)

- a. Barrett oesophagus.
- b. Mention four cystic diseases of kidney.
- c. Write in tabular form the differences between autoimmune gastritis and Helicobacter pylori gastritis.
- d. Mention the sputum findings in bronchial asthma.
- e. Enlist the types of urinary calculi

2. SHORT NOTES: (5 x 3 =15)

- a. Molecular classification of hepatic adenoma.
- b. Write in tabular form the differences between ulcerative colitis & Crohn disease.
- c. Write in tabular form the differences between nephritic and nephrotic syndrome.
- d. Explain using schematic diagram pathogenesis of atherosclerosis
- e. Four pathological stages of lobar pneumonia

3. 50-year male with chest pain radiating to left shoulder, breathlessness and profuse sweating. (5)

- a. What is your provisional diagnosis? (1)
- b. Mention the laboratory investigations needed for confirmation of your diagnosis. (2)
- c. Mention four important complications of the above condition. (2)

Section – B

4. SHORT ANSWER: (2 x 5=10)

- a. Prognostic factors of carcinoma breast.
- b. Classify soft tissue tumors.
- c. Enumerate the embryonal tumors of central nervous system
- d. Hashimoto thyroiditis.
- e. Morphology in rheumatoid arthritis.

5. SHORT NOTES: (3 x 5 =15)

- a. Chronic osteomyelitis
- b. Classify the surface epithelial tumors of ovary.
- c. Multiple endocrine neoplasia, Type-2.
- d. Osteosarcoma.
- e. Meningiomas

6. A 52-year-old lady presented with swelling in front of neck for 2 months rapidly increasing in size. On examination a 4x3cm firm swelling felt in midline of neck which moves on deglutition. She underwent a fine needle aspiration cytology, followed by surgery. Her histopathological examination revealed nests and trabeculae of anaplastic cells admixed with abundant extracellular eosinophilic homogenous material (5)

- a. What is your probable diagnosis? Give reasons. (1)
- b. What is the cell of origin of this lesion? (1)
- c. Mention the gene associated in its pathogenesis. (1)
- d. Write one special stain which can be used in this case. (1)
- e. Name one investigation used for follow up in this case. (1)

MULTIPLE CHOICE QUESTIONS:

(15 x 1 = 15)

Instructions: Select **only one answer** out of the choices given for each question and write in a separate answer sheet

1. Which of the following malabsorptive disease results from impaired lymphatic transport?
 - a. Celiac disease
 - b. Tropical sprue
 - c. Cystic fibrosis
 - d. Whipple disease
2. Mucocutaneous pigmentation is associated with:
 - a. Inflammatory polyp
 - b. Juvenile polyp
 - c. Hyperplastic polyp
 - d. Peutz - Jeghers polyps
3. Normal Reid Index is:
 - a. 0.3
 - b. 0.5
 - c. 0.4
 - d. 0.7
4. Sunburst appearance in X-ray of bone is seen in:
 - a. Multiple myeloma
 - b. Giant cell tumor
 - c. Osteosarcoma
 - d. Chondrosarcoma
5. A 40-year-old male presents with cough, hemoptysis and features of glomerulonephritis. His c-ANCA levels in serum were found to be raised. The most likely diagnosis is:
 - a. Goodpasture syndrome
 - b. Polyarteritis nodosa
 - c. Granulomatosis with polyangiitis
 - d. Kawasaki disease
6. Nephrotic syndrome is characterised by all EXCEPT:
 - a. Urine protein >3.5g/d
 - b. Urine protein <3.5g/d
 - c. Lipiduria
 - d. Hypercoagulability
7. Electron microscopy of a cell revealed the presence of pentalaminar, rodlike, tubular structure, with characteristic "tennis racket" appearance. The cell examined is diagnostic of:
 - a. Hodgkin Lymphoma
 - b. Plasma cell myeloma
 - c. Acute Myeloid Leukemia
 - d. Langerhans cell histiocytosis



8. A 28-year-old male patient presented with diabetes mellitus, pigmentation of skin and hypogonadism. The likely diagnosis is:
- Wilson disease
 - Alpha-1-antitrypsin deficiency
 - Addison disease
 - Hemochromatosis
9. Which of the following is NOT a feature of choriocarcinoma?
- Markedly raised serum β -hCG level
 - Extensive haemorrhage and necrosis
 - Enlarged, edematous, avascular chorionic villi
 - Pleomorphic trophoblastic cells with high mitotic activity
10. Aschoff cells are:
- Fibroblasts
 - Monocytes
 - Neutrophils
 - Lymphocytes
11. Azzopardi effect is seen in which type of lung cancers:
- Squamous cell carcinoma
 - Adenocarcinoma
 - Small cell carcinoma
 - Large cell carcinoma
12. Conjugated hyperbilirubinemia is a feature seen in
- Crigler Najjar syndrome type I
 - Crigler Najjar syndrome type II
 - Gilbert syndrome
 - Dubin-Johnson syndrome
13. The salivary gland tumor with abundant lymphoid cells is:
- Acinic cell tumour
 - Oncocytoma
 - Warthin tumour
 - Pleomorphic adenoma
14. Skin tumour that does not metastasize to lymph node is:
- Squamous cell carcinoma
 - Malignant melanoma
 - Basal cell carcinoma
 - Merkel cell carcinoma
15. Subendothelial humps on immunofluorescence are characteristic of:
- Post-infectious glomerulonephritis
 - Membranous glomerulonephritis
 - Minimal change disease
 - Membranoproliferative glomerulonephritis

Section - A

Q1. WRITE SHORT ANSWERS:

(1x5=5)

- a. What are acute phase reactants?
- b. Name four AIDS associated opportunistic infection.
- c. List the different antigen presenting cells.
- d. Name two tumor suppressor genes with an example of associated neoplasm for each.
- e. What are the differences between Marasmus and Kwashiorkor?

Q2. WRITE SHORT NOTES:

(3x5=15)

- a. Mention the differences between primary & secondary tuberculosis.
- b. Tay-Sachs disease.
- c. Draw a labelled diagram to illustrate the cellular events in acute inflammation
- d. Write in tabular form the differences between dystrophic and metastatic calcification.
- e. Virchow triad in vascular homeostasis

Q3. 50 year old lady presented with swelling of the right parotid gland, she had dryness of mouth, corneal ulcer & perforation of nasal septum.

(1x10=10)

- a. What is your clinical diagnosis? (1)
- b. What are the investigations required in this case? (2)
- c. Name the antibody specific for this condition. (1)
- d. What is the site of biopsy and mention the morphological findings in this condition. (2)
- e. Name the neoplasm commonly occurring in this disease? (1)
- f. Name two important diseases associated with the above condition. (1)
- g. Name three important viral infections which clinically resembles this condition. (2)

(P.T.O)

Section - B

Q4. WRITE SHORT NOTES:

(5x5=25)

- Mention the WHO classification of acute myeloid leukaemia.
- Compare and contrast between CML and Leukemoid reaction
- Peripheral smear and bone marrow picture in megaloblastic anaemia.
- Mismatched blood transfusion reaction
- Immune Thrombocytopenic Purpura (ITP)

Q5. A 60 year male C/O loss of appetite, bone pain, profound weakness, anaemia and sudden collapse of thoracic vertebra. X-ray showed multiple lytic bone lesions. Urinary Bence Jones protein was positive. Routine haematological investigations revealed.

(2+3=5)

Hb - 7 gm. %

TLC - 10, 500/mm³

DC - N60 L35 E₀5 and ESR - 130 mm at first hour

- What is your diagnosis and why?
- Mention the investigations required for confirmation of your diagnosis.

d. Osteosarcoma



All India Institute of Medical Sciences, Bhubaneswar
2nd Professional MBBS Final Examination 2016

Time : 3 Hrs

Pathology (Paper-I)

Max. Marks: 75

Section – C

Write the most appropriate answer (against the question Nos. : a/b/c/d) in the Main Answer Sheet (Section-A).

Multiple Choice Questions:

(1x15=15)

1. Who among the following described the cardinal events in acute inflammation?
 - a. Cart Rokitansky
 - b. Hippocrates
 - c. Rudolf Virchow
 - d. Celsus

2. A 36 years old male was symptomatic with fever, weight loss and swellings in the neck. His sputum was positive for acid fast bacilli. A cervical lymph node was biopsied. It is most likely to show:
 - a. Neutrophilic abscesses
 - b. Caseating granulomas
 - c. Non caseating granulomas
 - d. Normal histology of lymph node

3. Which genotype of HPV is responsible of cancer cervix:
 - a. HPV 16 & 11
 - b. HPV 16 & 18
 - c. HPV 8 & 6
 - d. HPV 9 & 31

4. A 50 year old male underwent a partial hepatectomy for a tumour. The residual liver is likely to show which of the following adaptive responses:
 - a. Regeneration
 - b. Repair
 - c. Metaplasia
 - d. Neoplastic change

5. Enzyme which prevents aging is:
 - a. Catalase
 - b. Superoxide dismutase
 - c. Mettalloproteinase
 - d. Telomerase

6. Following are precancerous conditions except:
 - a. Chronic atrophic gastritis
 - b. Leukoplakia
 - c. Chronic ulcerative colitis
 - d. Chronic granulomatous disorder

(P.T.O)

7. Diabetic foot is an example of:

- a. Dry gangrene
- b. Wet gangrene
- c. Gas gangrene
- d. Necrotising inflammation

8. PML-RARA mutation is a hallmark feature associated with:

- a. AML with t (8;21)
- b. AML with t (1;19)
- c. AML with t (15;17)
- d. AML with inv 16

9. In case of renal failure on long-term haemodialysis, there is development of following type of amyloid:

- a. Amyloid light chain (AL)
- b. Amyloid-associated protein (AA)
- c. Amyloid β_2 microglobulin (A β_2m)
- d. β amyloid protein (A β)

10. In warm antibody autoimmune haemolytic anaemias, the antibody commonly seen is:

- a. IgA
- b. IgG
- c. IgM
- d. IGD

11. CALLA is an antigen that corresponds to which of the following:

- a. CD 15
- b. CD 33
- c. CD 10
- d. CD 56

12. PECAM-1 adhesion molecule plays a role in:

- a. Rolling
- b. Transmigration
- c. Margination
- d. Chemotaxis

13. What is the karyotype in Klinefelter's syndrome?

- a. 46, XY
- b. 47, XYY
- c. 47, XXY
- d. 45, X

14. Which of the following is associated with CLASS I MHC?

- a. β_2 microglobulin
- b. HLA- DR
- c. Complements
- d. HLA-DQ

15. Annexin - V is used as a marker for:

- a. Necrosis
- b. Apoptosis
- c. Fatty change
- d. Gangrene

- c. Osteosarcoma
- d. Osteoid osteoma
