M.D. DEGREE EXAMINATION BRANCH III – PATHOLOGY

GENERAL MEDICAL AND SURGICAL PATHOLOGY INCLUDING APPLIED ASPECTS IN PATHOLOGY

Q.P. Code: 202010

Time: Three Hours Maximum: 100 marks

I. Essay: (2X10=20)

1. Discuss the pathogenesis, pathology and epidemiology of gastric carcinoma.

2. Briefly describe the histological appearances of the malignant round cell tumours of childhood including the immunohistochemical stains you would use to categorise each.

II. Short Questions:

(8X5=40)

- 1. Craniopharyngioma.
- 2. Histopathology of polyarteritis nodosa.
- 3. Adenomatoid tumour.
- 4. Histological patterns in testicular biopsies of infertile men.
- 5. Use and limitations of electron microscopy.
- 6. Grading of Carcinoma breast.
- 7. Membranous glomerulonephritis clinical and microscopic features.
- 8. Staining methods to detect fungi in tissue sections.

III. Reasoning Out:

(4X5=20)

- 1. A 10-year-old boy with a family history of renal disease has auditory nerve deafness, corneal dystrophy, and ocular lens dislocation and microscopic hematuria. Renal biopsy shows irregular basement membrane thickening and attenuation of glomerular capillaries with splitting of the lamina densa, increased mesangial matrix and foamyepithelial cells. The most likely diagnosis is
 - a. IgA nephropathy
 - b. Alport syndrome
 - c. Renal dysplasia
 - d. Goodpasture's syndrome
- 2. A 60-year-old woman presented with diffuse abdominal pain for the past 2 months. Investigations show a 3 cm adrenal mass composed of cells closely resembling adrenal cortex. The presence of which of the following features would suggest that this mass is malignant?
 - a. Nuclear pleomorphism
 - b. Increased mitotic activity
 - c. Vascular invasion
 - d. Necrosis

- 3. A primigravida was admitted with hypotension due to severe vaginal bleeding associated with a low-lying placenta. Postpartum, she was unable to breast-feed her baby and complained of pronounced fatigue. Laboratory findings include hyponatremia, hyperkalemia, and hypoglycemia. Which of the following is she most likely to have had?
 - a. Adrenal haemorrhage
 - b. Pituitary necrosis
 - c. Bacterial infection
 - d. Shock
- 4. At autopsy, the lungs of a 55 year-old showed greatly dilated bronchi and bronchioles filled with yellowish secretions. The bronchioles could be followed upto the pleural surface. The findings were most marked in the lower lobes. The most likely diagnosis is:
 - a. Chronic bronchitis
 - b. Bronchiectasis
 - c. Bronchial asthma
 - d. Emphysema

IV. Very Short Answers:

(10X2=20)

- 1. Gliosis.
- 2. Angiomyolipoma.
- 3. Two examples of heterotopia.
- 4. Hydrosalpinx.
- 5. Metachromasia.
- 6. Leukemoid reaction.
- 7. Effects of drying on a Papanicolaou smear.
- 8. Staining methods for amyloid.
- 9. Fine needle aspiration cytology findings in Hashimoto's thyroiditis.
- 10. Carcinoma associated with woodworkers.
