

April-2001

[KD 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

Branch III — Pathology

(Common to OR/NR/Revised Regulations)

Paper III — SYSTEMIC PATHOLOGY

Time : Three hours | Maximum : 100 marks

Answer ALL questions.

1. Discuss the recent concepts, classify and give pathology of Non-Hodgkins lymphoma. (25)
2. Discuss the pathology of ulcerative lesions in Ileum and Colon. (25)
3. Write briefly on (5 × 10 = 50)
 - (a) Immunological mechanism of glomerular injury.
 - (b) Congenital heart diseases
 - (c) Malignant lesions of lung
 - (d) Computer in Pathology
 - (e) Paraneoplastic syndrome

November-2001

[KE 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

(Common to New/Revised Regulations)

Branch III — Pathology

Paper III — SYSTEMIC PATHOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the molecular pathology of small round cell tumours. (25)
2. Classify eccrine sweat gland tumours and discuss their pathology. (25)
3. Write briefly on : (5 × 10 = 50)
 - (a) Metabolic bone disease.
 - (b) Obesity and other systemic disorders.
 - (c) Pathology of male infertility.
 - (d) Congenital cystic lesions of the kidney.
 - (e) Ependymoma.

[KG 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

(Common to OR/NR/Revised Regulations)

Branch III — Pathology

Paper III — SYSTEMIC PATHOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the current concepts in rheumatic heart disease. (25)
 2. Discuss the Pathology of PRION. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Osteogenic sarcoma.
 - (b) Mesothelioma.
 - (c) Parathyroid adenoma.
 - (d) Sclerosing cholangitis.
 - (e) Clear cell tumour of Cervix.
-

September-2002

[KH 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch III — Pathology

Paper III — SYSTEMIC PATHOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions

1. Discuss the pathology of Gestational trophoblastic tumors. (25)
2. Discuss the role of electron microscopy in the study of renal diseases. (25)
3. Write briefly on : (5 × 10 = 50)
 - (a) Prognostic factors in Ovarian cancer
 - (b) Large cell lymphomas
 - (c) Merkel cell carcinoma
 - (d) Alpha - 1 - antitrypsin deficiency
 - (e) Hepatitis C.

April-2003

[KI 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch III — Pathology

Paper III — SYSTEMIC PATHOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Classify CNS tumours. Discuss briefly morphology and microscopy of Glial Neoplasms. (25)
 2. Discuss the aetiology, pathology, types, complications of the vegetations of the heart. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Hamman-Rich Syndrome
 - (b) HIV related lymphadenopathy
 - (c) Polyps of the colon
 - (d) Carcinoid tumours
 - (e) Small round cell tumours.
-

[KJ 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch III — Pathology

Paper III — SYSTEMIC PATHOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : 20 marks

M.C.Q. : Twenty minutes

M.C.Q. must be answered **SEPARATELY** on the
Answer Sheet provided as per the instructions
on the first page.

Answer **ALL** questions.

Draw suitable diagrams wherever necessary.

1. Discuss the pathogenesis and molecular biology of colorectal carcinoma. Add a note on the morphology and prognostic action of colorectal cancer. (15)

2. Define and classify glomerulonephritis. Discuss in general the mechanisms involved in Aetiopathogenesis of Acute Glomerulonephritis. (15)

3. Write short notes on : (10 × 5 = 50)

(a) Classification and differentiation of carcinoid tumour of Gastro-intestinal tract.

(b) Pathobiology of Hirschsprung's disease.

(c) Classification and pathogenesis of Sjogren's syndrome.

(d) Teratoma.

(e) Aetio pathogenesis of carcinoma cervix.

(f) Signet ring cell lymphoma.

(g) Hormone producing Tumours of Ovary.

(h) Insitu Hybridisation—Its utility as Diagnostic Tool.

(i) Bone marrow transplantation.

(j) Classification of Osteosarcoma.

[KL 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch III — Pathology

Paper III — SYSTEMIC PATHOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
 forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

I. Essay : (2 × 15 = 30)

(1) Discuss the pathogenesis and pathology of primary cardiomyopathy.

(2) Discuss the diagnostic value of liver biopsy.

II. Write short notes on : (10 × 5 = 50)

(a) Fibroepithelial lesions of breast.

(b) Extranodal lymphomas.

(c) Sex cord stromal tumours of ovary.

(d) Interstitial pneumonitis.

(e) Primitive neurectodermal tumours.

(f) Muscle biopsy.

(g) Nonbacterial Thrombotic Endocarditis.

(h) Giant cell lesions of Bone.

(i) Immunoflorescence in the diagnosis of skin disorders.

(j) Mediastinal tumours.

[KP 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

Branch III — Pathology

Paper III — SYSTEMIC PATHOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

1. Essay questions :

(1) Etiopathogenesis of myocardial infarction.
Describe the gross and histopathological changes write
in detail the various diagnostic tests used for diagnosis
and prognosis. (20)

(2) Discuss the classification and pathology of
tumours of odontogenic epithelium. (15)

(3) Discuss the pathology of lymphomas at
unusual sites. (15)

II. Write short notes on : (6 × 5 = 30)

(a) Pathogenesis and pathology of
Hirschsprung's disease.

(b) Gastro intestinal Stromal Tumours.

(c) Prostatic Intraepithelial Neoplasia.

(d) Muscular dystrophies.

(e) Haemochromatosis.

(f) Adult polycystic kidney disease.

[KQ 113]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

Branch III — Pathology

SYSTEMIC PATHOLOGY

Common to

Paper III – (Old/New/Revised Regulations)

(Candidates admitted from 1988-89 onwards)

and

Paper III – (For candidates admitted from 2004-2005 onwards)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions :

(1) Classify tumours of the lung and discuss the etiopathogenesis and pathology of bronchogenic carcinoma. (20)

(2) Drug induced changes in female genital tract. (15)

(3) Define nephrotic syndrome and discuss the pathology of membranoproliferative glomerulonephritis. (15)

II. Write short notes on :

(6 × 5 = 30)

(a) Prognostic markers in breast cancer.

(b) Duchenne muscular dystrophy.

(c) Rosai-Dorfman disease.

(d) Discuss hydatidiform mole.

(e) Metaplastic lesions in endometrium and cervix.

(f) Creutzfeldt-jakob disease.

MARCH 2008

[KS 115]

Sub. Code : 2012

M.D. DEGREE EXAMINATION.

Branch III — Pathology

Paper III — SYSTEMIC PATHOLOGY

Common to all candidates

Q.P. Code : 202012

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

- I. Essay questions: (2 × 20 = 40)
1. Discuss the morphology, pathogenesis and molecular genetics of Alzheimer's disease.
 2. Discuss the risk factors, pathogenesis and prognostic factors of breast carcinoma.
- II. Write short notes on : (10 × 6 = 60)
1. Psoriasis.
 2. Pheochromocytoma.
 3. Cholelithiasis.
 4. Cervical intra epithelial neoplasia.
 5. Lipoid nephrosis.
 6. Hypertrophic gastropathy.
 7. Renal cysts.
 8. Intestinal polyps.
 9. Angio immunoblastic lymphadenopathy.
 10. Biliary cirrhosis.
-

September 2008

[KT 115]

Sub. Code: 2012

M.D. DEGREE EXAMINATION

Branch III – Pathology

Paper III - SYSTEMIC PATHOLOGY

Common to all Regulations

Q.P. Code : 202012

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 X 20 = 40)

1. Classify aneurysms. Discuss the etiopathogenesis of aortic aneurysm and complications.
2. Classify ovarian tumours. Discuss the etiopathogenesis and morphology of sex cord stromal tumors.

II. Write short notes on :

(10 X 6 = 60)

1. Phyllodes tumor.
 2. Medullary carcinoma of thyroid.
 3. Angioimmunoblastic lymphadenopathy.
 4. Felty syndrome.
 5. Diabetic nephropathy.
 6. Haemolytic-uraemic syndrome.
 7. Crohn's disease.
 8. Peyronie's disease.
 9. Haemochromatosis.
 10. Asbestosis.
-

March 2009

[KU 115]

Sub. Code: 2012

M.D. DEGREE EXAMINATION

Branch III – PATHOLOGY

(Common to all candidates)

Paper III – SYSTEMIC PATHOLOGY

Q.P. Code : 202012

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 x 20 = 40)

1. Discuss classification and pathogenesis of glomerular diseases.
2. Describe the current concepts in the pathogenesis of atherosclerosis.

II. Write short notes on :

(10 x 6 = 60)

1. Pathogenesis of metabolic bone disease.
2. Diabetic nephropathy.
3. Describe autoimmune thyroid disorders.
4. Endomyocardial biopsy.
5. Idiopathic pulmonary fibrosis.
6. Chondrosarcoma variants.
7. M.E.N. syndromes.
8. FIGO staging of ovarian tumors.
9. Immunological changes in leprosy.
10. Tumors of orbit.

September 2009

[KV 115]

Sub. Code: 2012

M.D. DEGREE EXAMINATION

Branch III – PATHOLOGY

(Common to all candidates)

Paper III – SYSTEMIC PATHOLOGY

Q.P. Code : 202012

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 x 20 = 40)

1. Classify Brochogenic carcinoma. Discuss its etiopathogenesis, morphology, diagnosis and complications.
2. Classify germ cell tumors. Discuss their etiopathology, clinical features, morphology and prognosis.

II. Write short notes on :

(10 x 6 = 60)

1. Ductal carcinoma insitu
2. Cholelithiasis
3. Prostatic intra-epithelial neoplasia
4. Chondroblastoma
5. Types of ependymoma
6. Hepatitis C viral infection
7. Embryonal sarcoma
8. Collagenous colitis
9. Erythema nodosum
10. Nesidioblastosis

March 2010

[KW 115]

Sub. Code: 2012

M.D. DEGREE EXAMINATION

Branch III – PATHOLOGY

(Common to all candidates)

Paper III – SYSTEMIC PATHOLOGY

Q.P. Code : 202012

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions : (2 x 20 = 40)

1. Discuss importance of immunohistochemistry and other markers in soft tissue sarcomas.
2. Classify cirrhosis of liver and describe the etiopathogenesis of alcoholic cirrhosis.

II. Write short notes on : (10 x 6 = 60)

1. Metabolic bone diseases.
2. Interstitial nephritis.
3. Gastrinomas.
4. Endomyocardial biopsy.
5. Placental pathology in hypertensive diseases of pregnancy.
6. Immunology of diabetes mellitus.
7. Hormone producing ovarian tumors.
8. Tumors of odontogenic epithelium.
9. Para neoplastic syndromes.
10. Pathology of target organ damage in hypertension.

September 2010

[KX 115]

Sub. Code: 2012

M.D. DEGREE EXAMINATION

Branch III – Pathology

Paper III - SYSTEMIC PATHOLOGY

(Common to all candidates)

Q.P. Code : 202012

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 X 20 = 40)

1. Discuss the etiopathogenesis, clinical features, morphology and prognosis of Carcinoma of Prostate.
2. Discuss the current concepts in the pathogenesis of Atherosclerosis.

II. Write short notes on :

(10 X 6 = 60)

1. Premalignant conditions of breast.
2. Paediatric solid tumours.
3. Interstitial nephritis.
4. Value of endometrial biopsy in diagnosis of abnormal uterine bleeding.
5. Interpretation of Endomyocardial biopsies.
6. Pathology of Neuroendocrine lung tumours.
7. Hepatitis C viral infection.
8. Pathology of Malignant melanoma.
9. Para testicular tumours.
10. Cystic disease of kidney.

MAY 2011

[KY 115]

Sub. Code: 2012

**M.D. DEGREE EXAMINATION
BRANCH III – PATHOLOGY
SYSTEMIC PATHOLOGY**

Q.P. Code : 202012

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Classify Carcinoma breast. Describe molecular pathology and histologic grading with prognostic factors in breast carcinoma.	6	15	10
2. Enlist epithelioid soft tissue tumors. Discuss the site, Morphology, approach to diagnosis and prognostic factors in CK+ve, CD34+ epithelioid sarcomas.	6	15	10
II. Short Questions:			
1. Current concept in Atherogenesis.	3	8	5
2. Cystic diseases of kidney.	3	8	5
3. Mucin histochemistry in Gastro intestinal lesions.	3	8	5
4. Muscle biopsy – Indications, Fixation, staining and enzyme histochemical methods for muscle biopsies.	3	8	5
5. Immune-mediated neuropathies.	3	8	5
6. Giant cell lesions of the bone.	3	8	5
7. Describe various dissection techniques of heart and discuss clinico pathologic autopsy findings in valvular disease of heart.	3	8	5
8. Testicular biopsy interpretation in male infertility.	3	8	5
III. Reasoning Out:			
1. 50 year old male, building construction worker, for 20 years recently experiencing increasing dyspnea, provoked on exertion, accompanied by productive cough. X-ray chest revealed irregular linear densities in both lower lobes with honey comb effect. a) What is your diagnosis? b) Describe the pathogenesis. c) Mention other complications of the etiological agent. d) Methods of demonstrating the causative agent.	4	10	5
2. 50 year old severely anemic male with H/o intermittent occult blood in stools. O/E No palpable mass abdomen with active bowel sounds. Radiographically normal but angiogram revealed 2 cm focus of dilated tortuous vascular channels in mucosa and submucosa of the caecum			

(PTO)

	Pages (Max.)	Time (Max.)	Marks (Max.)
<ul style="list-style-type: none"> a) What is the possible diagnosis? b) Explain the pathology. c) Enumerate the complications. 	4	10	5
<p>3. 68 year old female c/o severe weight loss in the recent past and progressive jaundice with vague constant epigastric pain with discomfort and diarrhoea and treated for episodes of migrating thrombosis. Serum bilirubin 14 mg/dl with direct 10 mg/dl</p> <ul style="list-style-type: none"> a) What is the possible diagnosis? b) Mention the precursor lesions. c) Describe the pathogenesis, morphology and prognosis of the lesion. 	4	10	5
<p>4. 28 year old primi developed vaginal bleeding in her II trimester. Her BP was 160/100. O/E uterus was large for dates. Ultra sound: revealed “snow storm” intra uterine content without fetus. D & C done and the cytogenetic analysis revealed only paternal chromosome pattern.</p> <ul style="list-style-type: none"> a) What is your diagnosis? b) Classify the disease. c) Explain the gross and microscopic grading and scoring. d) Mention the follow up study. 	4	10	5

IV. Very Short Answers :

1. Bethesda system.	1	4	2
2. Leukoplakia.	1	4	2
3. “Rule of 10” – mention the lesion and discuss briefly.	1	4	2
4. Define and classify Cirrhosis liver.	1	4	2
5. What is Pseudo Laminar Necrosis?	1	4	2
6. Microalbuminuria.	1	4	2
7. ‘Bone metastatising’ childhood renal neoplasm.	1	4	2
8. Micro invasive carcinoma cervix.	1	4	2
9. Harthle cell – mention the lesions at various sites and organs.	1	4	2
10. Esthesioneuroblastoma.	1	4	2

October 2011

[KZ 115]

Sub. Code: 2012

M.D. DEGREE EXAMINATION

BRANCH III – PATHOLOGY

SYSTEMIC PATHOLOGY

Q.P. Code : 202012

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Essay :

**Pages Time Marks
(Max.) (Max.) (Max.)**

- | | | | |
|---|---|----|----|
| 1. Discuss the role of immunohistochemistry in CNS neoplasms. | 6 | 15 | 10 |
| 2. Discuss in detail cystic lesions of liver. | 6 | 15 | 10 |

II. Short Questions:

- | | | | |
|--------------------------------------|---|---|---|
| 1. Endo myocardial biopsy. | 3 | 8 | 5 |
| 2. ANCA. | 3 | 8 | 5 |
| 3. Endometrial hyperplasia. | 3 | 8 | 5 |
| 4. Micro papillary carcinoma breast. | 3 | 8 | 5 |
| 5. Edema ovary. | 3 | 8 | 5 |
| 6. Para testicular tumours. | 3 | 8 | 5 |
| 7. LCIS. | 3 | 8 | 5 |
| 8. Protein - C. | 3 | 8 | 5 |

III. Reasoning Out:

- | | | | |
|---|---|----|---|
| 1. Pheochromocytoma
a) Patients may exhibit postural hypotension.
b) Glycosuria maybe demonstrated in one third of patients during acute episode. | 4 | 10 | 5 |
| 2. Hyperuricuria is associated with
a) Diuretics.
b) Pre-eclampsia.
c) Crohn disease. | 4 | 10 | 5 |

(PTO)

	Pages (Max.)	Time (Max.)	Marks (Max.)
3. Regarding Amyloidosis			
a) Bronchiectasis may lead to AL amyloid deposition.			
b) AA-Amyloid usually presents with proteinuria.	4	10	5
4. Diabetic nephropathy.			
a) Initially leads to a decrease in GFR.			
b) Micro albuminuria is often a late finding.	4	10	5

IV. Very Short Answers :

1. Morphology of amoebic liver abscess.	1	4	2
2. CSF – in pyogenic meningitis.	1	4	2
3. Two causes of granular contracted kidneys.	1	4	2
4. Common clinical features of carcinoid syndrome.	1	4	2
5. Baretts esophagus.	1	4	2
6. Neutral mucin.	1	4	2
7. Pleomorphic Lipoma.	1	4	2
8. Homer – wright rosettes.	1	4	2
9. Negri bodies.	1	4	2
10. Atheroma.	1	4	2

April 2012

[LA 115]

Sub. Code: 2012

**M.D. DEGREE EXAMINATION
BRANCH III – PATHOLOGY
SYSTEMIC PATHOLOGY
Q.P. Code : 202012**

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

**Pages Time Marks
(Max.) (Max.) (Max.)**

I. Essay:

- | | | | |
|--|---|----|----|
| 1. Define pyelonephritis. Classify and discuss its Etiopathogenesis and describe the gross and microscopic Pathology. Add a note on its complications. | 9 | 15 | 10 |
| 2. Describe endometrial histology in the menstrual cycle. | 9 | 15 | 10 |

II. Short Questions:

- | | | | |
|---|---|---|---|
| 1. Discuss etiopathogenesis of bronchiectasis. | 3 | 8 | 5 |
| 2. Give a diagrammatic depiction of the pathogenesis and Morphology of jejunal mucosa in celiac disease. | 3 | 8 | 5 |
| 3. What is the Goodpasture's syndrome? Discuss urine abnormalities, serologic markers & findings on renal biopsy in Goodpasture's syndrome. | 3 | 8 | 5 |
| 4. What is Addison disease? | 3 | 8 | 5 |
| 5. Describe pathogenesis and pathology of Lichen Planus. | 3 | 8 | 5 |
| 6. Define MEN Syndrome. Classify MEN syndromes and Discuss briefly about their etiopathogenesis and pathology. | 3 | 8 | 5 |
| 7. Discuss the various effects of primary hyperparathyroidism. | 3 | 8 | 5 |
| 8. Write briefly about the pathogenesis of renal calculi. | 3 | 8 | 5 |

III. Reasoning Out:

- | | | | |
|--|---|----|---|
| 1. A 42 year old man with history of alcohol abuse has a distended abdomen and dependent pitting edema. He had a Vascular lesion on his face with a spiderly appearance. Which additional physical finding in this patient would have the same pathogenesis as the skin lesion?
a) Ascites
b) Caput medusa
c) Gynaecomastia
d) Oesophageal varices | 5 | 10 | 5 |
| 2. A 70 year old man presented with persistent low grade fever of 2 months duration. He was on treatment for hypertension for the past 2 years. CBC revealed HB 18gm / dl, Total Count 56000 / cu mm., neutrophils with marked shift to the left, Urine sediment showed episodic haematuria. The procedure for confirmation of the most likely diagnosis would be: | | | |

- a) Chest X ray

(PTO)

April 2012

- | | | | |
|---|---|----|---|
| b) MRI of the abdomen | | | |
| c) Echocardiogram | | | |
| d) Electro encephalogram | 5 | 10 | 5 |
| 3. A needle biopsy of an abdominal mass in a 2 year old male child showed small round primitive appearing cells with dark Nuclei, scant cytoplasm and poorly defined cell borders arranged in solid sheets. The background showed eosinophilic faintly fibrillar material. A diagnostic feature to look for would be : | | | |
| a) Formation of abortive tubules or glomeruli | | | |
| b) Pseudorosettes | | | |
| c) Alternating hyper and hypocellular areas | | | |
| d) Clear PAS+ cytoplasm | 5 | 10 | 5 |
| 4. A 21 year old male had a resection of the distal Femur of the right Leg for a necrotic metaphyseal tumour extending through the cortex into the surrounding soft tissue. When the patient had been 2 years old a cancerous lesion had been surgical removed from his right eye. Which of the following regulatory genes is most likely to be responsible for both these lesions? | | | |
| a) BRCA1 suppressor gene | | | |
| b) MYC proto-oncogene | | | |
| c) RAS proto-oncogene | | | |
| d) RB suppressor gene | 5 | 10 | 5 |

IV. Very Short Answers:

- | | | | |
|---|---|---|---|
| 1. Enumerate the Kidney biopsy findings in Minimal change disease. | 1 | 4 | 2 |
| 2. What are the pulmonary diseases induced by drugs? | 1 | 4 | 2 |
| 3. What is the role of ER & PR receptors testing as markers in breast carcinoma? | 1 | 4 | 2 |
| 4. Name the liver enzymes whose activities reflect a: Cholestasis b: liver cell damage. | 1 | 4 | 2 |
| 5. List causes of hepatic granulomas. | 1 | 4 | 2 |
| 6. What is the Histologic Differential diagnosis for GIST. | 1 | 4 | 2 |
| 7. List the tests useful in the diagnosis of exocrine pancreatic Disease. | 1 | 4 | 2 |
| 8. What is nephrotic range proteinuria? | 1 | 4 | 2 |
| 9. Juvenile rectal polyp. | 1 | 4 | 2 |
| 10. What is congenital lobar emphysema? | 1 | 4 | 2 |

[LB 115]

OCTOBER 2012
M.D. DEGREE EXAMINATION
BRANCH III – PATHOLOGY
SYSTEMIC PATHOLOGY
Q.P. Code : 202012

Sub. Code: 2012

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages	Time	Marks
	(Max.)	(Max.)	(Max.)
I. Essay:			
1. What is Hashimoto thyroiditis? Describe pathogenesis and morphology of Hashimoto Thyroiditis. Add a note on its clinical course.	9	15	10
2. Tabulate WHO Classification of Ovarian neoplasms. Describe the gross and microscopic features of Germ Cell Tumours of Ovary.	9	15	10
II. Short Questions:			
1. How are glomerular diseases classified?	3	8	5
2. Enumerate lesions of the Gestational trophoblast.	3	8	5
3. Enumerate the ultrastructural features of GIST.	3	8	5
4. Discuss metastatic tumours to the bone.	3	8	5
5. Write briefly about Zollinger Ellison syndrome.	3	8	5
6. What is follicular variant of papillary carcinoma of the thyroid? Describe its distinctive features & compare them with the conventional Papillary carcinoma.	3	8	5
7. What are the predisposing factors to Malignant melanoma of the skin.	3	8	5
8. Write briefly about Xanthogranulomatous pyelonephritis.	3	8	5
III. Reasoning Out:			
1. A 16 year old boy presented with an oval 8 cm erythematous Scaly lesion over the lower part of the back of his upper arm. The lesion was irregular in shape with indurated elevated Hyperpigmented margin and depressed pale centre. The lesion lacked sensation. The pathognomonic microscopic feature would be a) Hyperkeratosis and acanthosis b) Perineuronal granulomas with nerve destruction c) Leukocytoclastic vasculitis d) Pautrier's microabscess	5	10	5
2. A 25 year old male working in battery making unit presented with Intermittent headache and occasional colicky abdominal pain. The peripheral smear showed hypochromic microcytic anemia with a few polychromatophilic cells. The diagnostic feature to look for in the peripheral smear would be the presence of			(PTO)

- | | | | |
|---|---|----|---|
| a) Target cells | | | |
| b) Punctate basophilia | | | |
| c) Sickle cells | | | |
| d) Schistocytes | 5 | 10 | 5 |
| 3. A 40 year old man with complaints of fever and fainting spells over the past 6 months states that he faints only on standing. He also complained of pain in the left upper quadrant aggravated by inspiration and pain in the right flank. Blood pressure was normal both when lying down and sitting up. A late diastolic murmur was heard on auscultation. Spleen was enlarged and tender with a friction rub. Urine was positive for blood and the sediment positive for RBCs. Which of the following is the most likely diagnosis? | | | |
| a) Calcific aortic stenosis | | | |
| b) Hypertrophic cardiomyopathy | | | |
| c) Left atrial myxoma | | | |
| d) Pericardial effusion | 5 | 10 | 5 |
| 4. A 30 year old female presented with fever and pain in the right shoulder. O/E a malar rash was present. CBC showed a mild normocytic Anemia. Urine examination showed trace proteinuria. A positive antiphospholipid antibody test was also present. The fundamental defect in this disease is thought to be failure of the mechanisms that maintain self tolerance. | | | |
| a) True | | | |
| b) False | 5 | 10 | 5 |

IV. Very Short Answers :

- | | | | |
|--|---|---|---|
| 1. Classify Gastric Epithelial Dysplasia. | 1 | 4 | 2 |
| 2. What is the general routine for gross examination of the Placenta? | 1 | 4 | 2 |
| 3. What are the criteria for diagnosing malignancy in follicular neoplasms of the thyroid? | 1 | 4 | 2 |
| 4. Name morphological patterns identified under scanning magnification in cutaneous pseudolymphoma. | 1 | 4 | 2 |
| 5. Enumerate the Direct & Indirect mechanisms that lead to CD4+ T cell dysfunction & depletion in HIV infection. | 1 | 4 | 2 |
| 6. What are "Sulfur" granules? | 1 | 4 | 2 |
| 7. Define autoimmune hepatitis. | 1 | 4 | 2 |
| 8. What is the nephritic type "active" urine sediment? | 1 | 4 | 2 |
| 9. Diagnosis of Candida esophagitis. | 1 | 4 | 2 |
| 10. What is Reyes Syndrome? | 1 | 4 | 2 |

(LC 115)

APRIL 2013

Sub. Code: 2012

**M.D. DEGREE EXAMINATION
BRANCH III – PATHOLOGY
SYSTEMIC PATHOLOGY
Q.P. Code : 202012**

Time: Three Hours

Maximum: 100 marks

I. Essay:

(2X10=20)

1. Define Inflammatory Bowel Disease. Discuss pathogenesis and pathology of Crohns Disease and Ulcerative Colitis highlighting the differences between the two conditions.
2. Discuss etiopathogenesis, precancerous lesions, gross and microscopic pathology of cervical carcinoma.

II. Short Questions:

(8X5=40)

1. What are the classic pathological features of ischemic and nephrotoxic Acute Renal Failure?
2. Discuss immunopathogenesis of Rheumatoid Arthritis.
3. Write briefly about Ewing Sarcoma family of tumours.
4. Discuss the pathogenesis of Emphysema .
5. Discuss the heterogenicity of the histology in pleomorphic adenoma of the salivary gland.
6. Describe the gross and microscopic appearance of classic Peptic ulcers.
7. Tabulate the Histologic Activity Index in Chronic hepatitis.
8. Write briefly on polycystic ovarian syndrome.

III. Reasoning Out:

(4X5=20)

1. 8 years male child had a sudden onset periumbilical pain with vomiting and low grade fever. His TWBC count was 15000 cells / cu.mm with neutrophilia of 75 %. The diagnostic feature in the resected appendix would be
 - a) Hyperplastic lymphoid follicles
 - b) Presence of E. vermicularis in the lumen.
 - c) Neutrophilic infiltration of the muscularis propria
 - d) Eosinophilic exudates in the lumen
2. A 46 year old Female presented with dysfunctional uterine bleeding and painful nodularity of both breasts. A 10/8/6 cm right sided pelvic mass was detected. A hysterectomy with bilateral salpingo oophorectomy was performed. The resected specimen showed a right ovarian mass with an intact capsule which on cut section was yellowish, with solid and cystic areas. The presence of which microscopic feature would characterize this tumour?
 - a) Schiller Duvall bodies
 - b) Call Exner bodies
 - c) Psammoma bodies
 - d) Hyaline bodies

(PTO)

3. 8 years old male child presented with acute abdominal pain and bleeding per rectum. O/E he had dark brown macules on his face and buccal mucosa. A 8 cm pedunculated, lobulated polyp was excised from the small intestine. The presence of which of the following histologic feature characterizes this ployyp?
- Mature goblet cells and absorptive cells
 - Lymphoid follicles in the stroma
 - Arborising network of smooth muscle fibres intermixed with lamina propria
 - Numerous eosinophils in the lamina propria
4. 28 year old male had trivial injury to his right hand. An X ray revealed a well circumscribed oval lucency in the 2nd metacarpal bone surrounded by a thin rim of radiodense bone. The characteristic histology would be the presence of
- large vascular spaces lined by endothelial cells
 - well circumscribed nodules of hyaline cartilage
 - benign spindle cells in a storiform pattern
 - curvilinear woven bony trabeculae surrounded by moderately fibroblastic proliferation

IV. Very Short Answers:

(10X2=20)

- Differentiate between myofibres I & II seen in a muscle Biopsy.
- What is Schiller Duvall body?
- What are the diagnostic microscopic features of Hirschsprung Disease?
- Classify mediastinal tumours
- What is Zellballen?
- Describe histology of pulmonary alveolar proteinosis.
- What are the classical features of steatohepatitis?
- Describe the morphology of Gouty Tophus.
- What are thin basement membrane disease?
- What are the most important risk factors involved in the development of alcoholic liver disease & what is the corner stone in the treatment of alcoholic liver disease?

[LE 115]

APRIL 2014

Sub. Code: 2012

**M.D. DEGREE EXAMINATION
BRANCH III – PATHOLOGY
SYSTEMIC PATHOLOGY**

Q.P. Code :202012

Time : 3 hours

Maximum : 100 marks

I. Essay:

(2X10=20)

1. Discuss tumours of the testis.
2. Describe the role of renal biopsy in a patient with nephrotic syndrome.

II. Write short notes on:

(8X5=40)

1. Primary hyperparathyroidism
2. Assessment of prognosis in melanoma
3. Crohn's disease
4. Histological changes in chronic viral hepatitis
5. In situ and invasive lobular carcinoma of breast
6. Osteosarcoma
7. Synovial sarcoma
8. Neuroblastoma

III. Reasoning Out:

(4X5=20)

1. A 35-year-old man presented with dull pain in the right knee for the past 3 months. X-ray showed a lytic tumour involving the epiphysis and the metaphysis, eroding the subchondral bone plate. The tumour was covered by a thin shell of reactive bone. Which of the following tumours is this most likely to be?
 - a. Metastatic tumour
 - b. Chondroblastoma
 - c. Giant cell tumour
 - d. Fibrous dysplasia
2. A 70-year-old woman has difficulty keeping her room in order, wanders away from the house and has loss of memory. She has no history of seizures or trauma. What are the most likely histopathologic findings associated with her condition?
 - a. Infarction in the region of the caudate nucleus
 - b. Neurofibrillary tangles and cortical plaques
 - c. Gliosis in the hippocampus.
 - d. Degeneration of the substantia nigra

3. A 35-year-old woman has a mass in the neck which is a tumour with nests of polygonal cells in a stroma containing amyloid. Immunostaining for calcitonin is positive. She also has hypercalcemia. Which of the following neoplasms is she most likely to have?
- Follicular thyroid carcinoma
 - Medullary thyroid carcinoma
 - Parathyroid carcinoma
 - Metastatic small cell carcinoma
4. A 25-year-old woman with a history of oral contraceptives use for about 14 months presented with frequent episodes of vaginal bleeding and a 0.7 cm polypoid mass in the endocervical region. The ectocervix, uterus and adnexa appear normal. What is the biopsy of this mass most likely to show?
- Benign endocervical polyp
 - Endocervical adenocarcinoma
 - Clear cell carcinoma
 - Microglandular hyperplasia

IV. Very Short Answers:

(10X2=20)

- Pleomorphic adenoma
- Barrett's oesophagus
- Schwannoma
- Primitive neuroectodermal tumour
- Histological changes in diabetic retinopathy
- Condyloma acuminatum
- Chordoma
- Bronchioloalveolar carcinoma
- Atrial myxoma
- Brain in cerebral malaria

[LF 115]

OCTOBER 2014

Sub. Code: 2012

M.D. DEGREE EXAMINATION
BRANCH III – PATHOLOGY
PAPER III - SYSTEMIC PATHOLOGY
Q.P. Code :202012

Time : 3 Hours

Maximum : 100 marks

I. Essay:

(2 x 10 = 20)

1. Classify lung tumors. Discuss the etiopathogenesis and molecular genetics of bronchogenic carcinoma.
2. Discuss the recent concepts in aetiopathogenesis and pathology of inflammatory bowel disease.

II. Write short notes on:

(8 x 5 = 40)

1. Germ cell tumors of testis.
2. Metabolic bone disorders.
3. Precancerous lesions of skin.
4. Vegetations of heart.
5. Cystic diseases of kidney.
6. Myopathies of gastrointestinal tract.
7. Premalignant conditions of prostate.
8. Non alcoholic fatty disease of liver.

III. Reasoning Out:

(4 x 5 = 20)

1. 30 year old female with H / O oral contraceptive intake presented with solitary space occupying lesion in the liver.
 - A. What is your diagnosis?
 - B. What is the morphology of this condition?
 - C. What are the differential diagnosis?
2. 15 year old boy presented with swelling right knee. X ray revealed metaphyseal lytic lesion with soft tissue extension.
 - A. What is your diagnosis?
 - B. What are the morphologic variants?
 - C. What are the prognostic factors of this condition?

3. 30 year old female presented with solitary nodule thyroid with cystic change and cervical lymphadenopathy
 - A. What is your diagnosis?
 - B. What are the histologic variants?
 - C. What are the genetic alterations associated with this condition?

4. 5 year old boy presented with delayed walking, difficulty in getting up and pseudohypertrophy of calf muscles. Familial inheritance pattern was noted on history elicitation.
 - A. What is your diagnosis?
 - B. What is the morphology?
 - C. What is the molecular genetics of this condition?

IV. Very Short Answers:

(10 x 2 = 20)

1. Mycosis fungoides.
2. Melanotic progonoma.
3. Takayasu arteritis.
4. Zuska disease.
5. Toxins produced by H.pylori.
6. Drop metastasis.
7. Sites of paraganglioma.
8. Mucocele.
9. Gastric autonomic nerve tumors.
10. Peyronie disease.
