

D.M. DEGREE EXAMINATION, MARCH 1990.

(Higher Specialities)

Branch IV — Gastroenterology

BASIC SCIENCES AS APPLIED TO GASTROENTEROLOGY

Time : Three hours.

Answer ALL the questions.

1. Discuss the immunological mechanism of Liver injury.
 2. Describe the essential features of histopathology of Intestinal Tuberculosis, Crohn's Disease and non-specific ulcerative colitis.
 3. Write short notes on :
 - (a) Hepatitis virus C.
 - (b) Mechanism of gastroduodenal mucosal injury by non-steroidal anti-inflammatory drugs.
 - (c) Constituents and significance of Biliary Sludge in the Gall bladder.
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March-1991

D.M. DEGREE EXAMINATION, MARCH 1991

(Higher Specialities)

Branch IV — Gastroenterology

Paper — BASIC SCIENCES AS APPLIED TO
GASTROENTEROLOGY

Time Three hours.

Answer ALL the questions

1 Describe the essential features of the normal
enteric bacterial flora and their role in health and disease.

2 Discuss the normal blood supply of the gastro-
intestinal tract and the pathophysiology of ischemic bowel
disease

Write short notes on

- (a) Enteral nutrition.
- (b) Hepatitis virus E.
- (c) Noninvasive pancreatic function tests.
- (d) Fatty liver.
- (e) Physiology of gastric emptying.

D.M. DEGREE EXAMINATION, SEPTEMBER 1991.

Branch IV — Gastroenterology

BASIC SCIENCES AS APPLIED TO GASTROENTEROLOGY

Time : Three hours.

Maximum : 100 marks.

Answer ALL questions.

1. Discuss the normal physiology of bile secretion and the syndrome of cholestasis. (25 marks)
 2. Describe the immune system of the gastrointestinal tract and discuss primary lymphoma of the intestine. (25 marks)
 3. Write short notes on :
 - (a) Interdigestive migrating motor complex.
 - (b) Immunoprophylaxis of type B hepatitis.
 - (c) Hepatic granulomas.
 - (d) Viral diarrhoea.
 - (e) Prokinetic agents used in gastrointestinal diseases.(5×10=50 marks)
-

[337]

September-1992

D.M. DEGREE EXAMINATION, SEPTEMBER 1992:

Branch IV — Gastroenterology

Paper I — BASIC SCIENCES AS APPLIED TO
GASTROENTEROLOGY

Time : Three hours.

Maximum : 100 marks.

Answer ALL questions.

1. Describe the physiological actions of various gut hormones. (25 marks)
 2. Discuss the possible precursor lesions of gastric carcinoma. (25 marks)
 3. Write short notes on :
 - (a) Metronidazole.
 - (b) *Vibrio cholera*.
 - (c) Bilirubin metabolism.
 - (d) Rectal biopsy.
 - (e) Prothrombin time in liver diseases.(5 × 10 = 50 marks)
-

November-1993

PR 5101

D.M. DEGREE EXAMINATION

(Higher Specialities)

Branch IV — Gastroenterology

(Old/New Regulations)

**Paper I — BASIC SCIENCES AS APPLIED TO
GASTROENTEROLOGY**

Time : Three hours.

Maximum : 100 marks.

Answer ALL questions.

Describe the mechanism of bile secretion with special reference to biliary lipids. (25)

Describe the types of colonic motility and their relevance to Irritable Bowel Syndrome. (25)

Write short notes on :

(a) Diagnostic methods for Hepatitis C virus.

(b) TIPS.

(c) Nitric oxide in hepato-renal syndrome.

(d) Recent prokinetic drugs.

**(e) 24 hour pH monitoring : methods and relevance.
(5×10=50)**

D. M. DEGREE EXAMINATION

(Higher Specialities)

Branch IV GASTROENTEROLOGY

Old/New Regulations

Paper BASIC SCIENCES AS APPLIED TO
GASTROENTEROLOGY

Time : Three Hours Maximum Marks 100

Answer ALL Questions

1. Discuss the etiopathogenesis of diarrhoeal diseases.
(25)
 2. Describe the hemodynamic alterations associated with cirrhosis of the liver, non-cirrhotic portal fibrosis, portal vein obstruction and inferior vena caval obstruction.
(25)
 3. Write short notes on :
 - a) Free radical scavengers
 - b) Gastric mucosal barrier
 - c) Hydrogen breath test
 - d) Cholestasis
- 111
- e) Indium neutrophil test in inflammatory bowel disease. (5 X 10 = 50)

April-1995

110]

D.M. DEGREE EXAMINATION.

(Higher Specialities)

Branch IV — Gastroenterology

(Old/New Regulations)

**Paper I — BASIC SCIENCES AS APPLIED TO
GASTROENTEROLOGY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

**Discuss the classification and pathogenesis of intestinal
obstruction. (25)**

**Discuss the biochemical and pharmacological approach to
treatment of Gallstones. (25)**

Write short notes on : (5 × 10 = 50)

- (a) Refractory Duodenal ulcer.**
- (b) Role of calcium ion in hepatic injury.**
- (c) Discuss mechanisms of intra hepatic cholestasis.**
- (d) Discuss aetiology of persistent diarrhoea in children.**
- (e) Renal changes in chronic liver disease.**

November-1995

MB 110

D.M. DEGREE EXMINATION

(Higher Specialities)

(Old/New Regulations)

Branch IV - GASTROENTEROLOGY

**Paper I - BASIC SCIENCES AS APPLIED TO
GASTROENTEROLOGY**

Time: Three hours Max. marks:100

Answer All Questions

- 1. Discuss "Oesophageal motility in health and disease". (25)**
- 2. Discuss the mechanisms of gastroduodenal mucosal defense. (25)**
- 3. Write short notes on:**
 - (a) Stone protein**
 - (b) Hepatotrophic factors**
 - (c) B12 absorption**
 - (d) Hepatitis B virus mutants**
 - (e) Somatostatin (5x10=50)**

D.M. DEGREE EXAMINATION

(Higher Specialities)

Branch IV - Gastroenterology

(Revised Regulation)

Paper I - BASIC SCIENCES APPLIED TO GASTROENTEROLOGY

Time: Three hours

Max. marks:100

Answer All Questions

1. Discuss the impact of normal enteric flora on a healthy host. (25)
2. Discuss the anatomy of lower oesophageal sphincter and effect of various drugs on LES and changes in health and disease. (25)
3. Write short notes on:
 - (a) Colonic motility
 - (b) Gastrin - role in health and disease
 - (c) Cholera toxin - structure and mode of action
 - (d) Role of mucosal biopsy in the diagnosis of malabsorption syndrome
 - (e) Mucosal protective agents in peptic ulcer disease. (5x10=50)

D.M. DEGREE EXAMINATION
(Higher Specialities)

Branch IV - Gastroenterology
(Revised Regulations)

Paper I - BASIC SCIENCES APPLIED TO
GASTROENTEROLOGY

Time: Three hours

Max.marks:100

Answer All Questions

1. Describe the ultra structure of the hepatocyte and the mechanism of necrosis in viral hepatitis. (25)
2. Describe the blood supply of the colon. Discuss the pathological changes occurring in the colon due to obliteration of its blood supply. (25)
3. Write briefly on:
 - (a) Enterocyte
 - (b) Breath test in malabsorption
 - (c) Functions of gall bladder
 - (d) Pancreatic polypeptide
 - (e) Drugs in the management of pruritus of cholestasis. (5x10=50)

April-1998

SV 16

D.M. DEGREE EXAMINATION
(Higher Specialities)
Branch IV - Gastroenterology
(Revised Regulations)

Paper I - BASIC SCIENCES APPLIED TO THE
SPECIALITY

Time: Three hours

Max.marks:100

Answer All Questions

1. Describe the ultra structure of the enterocyte and discuss the newer modalities of investigations for the diagnosis of malabsorption. (25)
2. Discuss the factors controlling regeneration of liver. (25)
3. Write briefly on:
 - (a) Barrett's oesophagus
 - (b) Somatostatin
 - (c) Carcinoembryonic antigen
 - (d) Lithostatin
 - (e) Malt Lymphoma.

(5x10=50)

October-1998

[SM 013]

D.M. DEGREE EXAMINATION.

(Higher Specialities)

Branch IV — Gastroenterology

(Revised Regulations)

**Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss bilirubin metabolism and familial hyperbilirubinemia. (25)
2. Discuss blood circulation in intestines and diseases caused by vascular impairment. (25)
3. Write short notes on : (5 × 10 = 50)
 - (a) Epidermal growth factor
 - (b) Gastrointestinal function in elderly
 - (c) Cytokinins and Helicobacter Pylori
 - (d) Pancreatic polypeptide
 - (e) Oesophageal motility disorders.

[KB 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION.

(Higher Specialities)

Branch IV — Gastroenterology

(Revised Regulations)

**Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss pathogenesis of ascites and renal dysfunction in cirrhosis. Describe effect of large volume paracentesis, spironolactone therapy and TIPS (transjugular intrahepatic porto-systemic shunt) on renal function. (25)
 2. Enumerate and discuss importance of various tests to identify pancreatic necrosis. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Breath tests for diagnosis of malabsorption
 - (b) Intestinal flora in intestinal diseases.
 - (c) Somatostatin.
 - (d) Hepatitis B virus mutants and variants.
 - (e) Virtual CT (computed tomographic) colonoscopy.
-

October-2000

[KC 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION.

(Higher Specialities)

Branch IV — Gastroenterology

(Revised Regulations)

Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the hepatic microcirculation in normal persons and its alterations in cirrhosis of Liver. (25)
 2. Discuss the anatomy of Anorectal region and its various anomalies. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Halitosis
 - (b) Manometric criteria for Oesophageal motor disorder
 - (c) Viral Diarrhoea
 - (d) Natural history of Cholelithiasis
 - (e) Nonfunctional islet cell tumors.
-

April-2001

[KD 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION.

(Higher Specialities)

Branch IV — Gastroenterology

(Revised Regulations)

**Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the pathogenesis of Hepatic fibrosis. (25)
2. Discuss the normal motility of Gut. Describe the changes in irritable bowel syndrome. (25)
3. Write short notes on : (5 × 10 = 50)
 - (a) Barrets oesophagus.
 - (b) Kupfer cell.
 - (c) Eradication of helicobacter pylori.
 - (d) Breath test.
 - (e) Sphincter of Odi dysfunction.

November-2001

[KE 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

**Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions

- 1 Discuss the role of IRON in liver diseases (25)
 2. Discuss the embryonic development and congenital anomalies of the pancreas. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Gut-preferred fuels.
 - (b) B₁₂ – absorption.
 - (c) Histopathology of hepatocellular carcinoma.
 - (d) Innervation of oesophagus.
 - (e) Inhibitors (naturally occurring) of gastric acid secretion.
-

March-2002

[KG 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

**Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the pharmacology of vasoactive drugs used in the management of portal hypertension. (25)
 2. Critically evaluate the role of different pancreatic function tests. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Erythrocyte changes in liver disease
 - (b) Histology activity Index
 - (c) Microbiology and prevention of infections transmitted by endoscopes
 - (d) 5-HT receptors in the gut
 - (e) Urea breath test.
-

September-2002

[KH 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Describe the mechanism of Hepatic Regeneration. (25)
 2. Describe the anatomy of lower oesophageal sphincter and discuss the mechanism of gastrooesophageal reflux. (25)
 3. Write short notes on : (50)
 - (a) Pancreas Divisum
 - (b) Absorption of Sodium
 - (c) Tumour necrosis factor alpha
 - (d) Somatostatin
 - (e) Alkaline phosphatase.
-

[KK 013]

Sub. Code : 1251

B. Write short notes on :

(10 × 5 = 50)

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

Paper I — BASIC SCIENCES APPLIED TO THE SPECIALITY

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.

A. Essay :

(2 × 15 = 30)

(1) Discuss "Oesophageal Motility in health and disease".

(2) Describe the ultrastructure of the hepatocyte and the mechanism of necrosis in viral hepatitis.

(1) Barretts Oesophagus.

(2) Somatostatin.

(3) Breath test in malabsorption.

(4) Choledochal cyst.

(5) Solitary rectal ulcer.

(6) Carcinoid syndrome.

(7) Bacterial flora of G.I. Tract.

(8) Neonatal hepatitis.

(9) *Haemobilia*.

(10) Virtual colonoscopy.

[KL 013]

Sub. Code : 1251

II. Write short notes on :

(10 × 5 = 50)

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

Paper I – BASIC SCIENCES APPLIED TO THE SPECIALITY

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.

1. Essay :

$(2 \times 15 = 30)$

(1) Briefly discuss the microscopic anatomy of Oxyntic (gastric) gland and the various cellular mechanisms involved in the regulation of acid secretion.

(2) Give an account of embryonic development of pancreas, its normal anatomy and histology in adult and various congenital anomalies of pancreas.

(a) Peyer's patches.

(b) Cytokines in regulation of intestinal inflammatory response.

(c) **Biology of tumor metastasis.**

(d) Stellate cells.

(e) Manometric criteria for primary esophageal motility disorders.

(f) **Tumor Suppressor Genes.**

(g) Malrotation of Gut.

(h) Brush border digestion of carbohydrates.

(i) Control of normal enteric flora.

(j) **Hepatic Venous Pressure Gradients.**

[KM 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

Paper I — BASIC SCIENCES APPLIED TO THE SPECIALITY

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes	Theory : 80 marks
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M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

I. Essay: (2 × 15 = 30)

(1) Describe the surface anatomy, segmental anatomy and acinar micro anatomy of the human liver and their clinical utility.

(2) Discuss the embryonal development of Biliary tract and the related developmental anomalies with a detailed commentary on choledochal cyst.

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

(a) Esophageal webs and rings

(b) Interstitial cells of cajal

(c) Immuno histochemistry in liver diseases

(d) Barrett's metaplasia

(e) Pegylation

(f) Modalities for assessment of Gastric motor functions

(g) Types of Pathogenic E.Coli

(h) Metavir and Ishak scoring systems

(i) Small bowel histology in malabsorption syndrome

(j) Pancreatic blood supply, venous and lymphatic drainage.

[KO 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY

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.

I. Essay :

(2 × 15 = 30)

(1) Describe the microanatomy and relevant physiology of bile secretion at the canalicular membrane of the hepatocyte.

(2) Describe the embryonal development of the intestines, and the problems associated with malrotation of the gut.

II. Write short notes on :

(10 × 5 = 50)

- (a) Antimicrobial resistance in *H.pylori*.
- (b) Infliximab.
- (c) Life cycle of *strongyloides stercoralis*.
- (d) Lymphatic drainage of the stomach.
- (e) Physiology of defaecation.
- (f) Epidemiology of Hepatitis A.
- (g) 5HT receptors.
- (h) Hepatic changes in normal pregnancy.
- (i) Bulaemia nervosa.
- (j) Immunohistochemistry of liver disease.

[KP 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

Paper I — BASIC SCIENCES APPLIED TO THE SPECIALITY

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 :

- (1) Describe the factors influencing calcium absorption in the gut. Discuss the skeletal abnormalities secondary to hepato-biliary diseases. (20)
- (2) Discuss the role of dietary factors in the pathogenesis and prevention of gastrointestinal cancers. (15)
- (3) Describe the hepatic blood flow in health and in portal hypertension. (15)

II. Write Short notes on :

(6 × 5 = 30)

- (a) Zinc deficiency and supplementation.
- (b) Transient lower oesophageal sphincter relaxation.
- (c) Congenital anomalies of pancreas.
- (d) Common variable immunodeficiency.
- (e) Genetics of Wilson's disease.
- (f) Cyclo-oxygenase 2 inhibitors.

[KQ 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

**Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY**

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.

I. Essay :

(1) Discuss the role of neural, hormonal, paracrine and autocrine agents in the regulation of gastric acid secretion in health and disease. (20)

(2) Discuss the pathophysiology of constipation and its relevance in systemic illnesses. (15)

(3) Describe the mechanism of liver injury due to alcohol ingestion. (15)

II. Write short notes on :

(6 × 5 = 30)

1. Pathogenesis of hereditary pancreatitis.
 2. Intestinal cells of cajal.
 3. Bacterial over growth in irritable bowel syndrome.
 4. Role of intestinal flora in IBD.
 5. Pathogenesis in early and late stage of NAFLD.
 6. Mechanism of GERD.
-

[KR 013]

Sub. Code : 1251

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch IV — Gastroenterology

Paper I — BASIC SCIENCES APPLIED TO THE
SPECIALITY

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.

I. Essay :

1. Describe bile salt metabolism. (20)
2. Discuss intestinal micro circulation. (15)
3. Describe normal cell cycle, regulation of normal cell proliferation and pathways mediating cell growth. Also describe various mechanisms involved in oncogenesis. (15)

II. Write short notes on :

(6 × 5 = 30)

- (a) Prebiotics.
 - (b) HFE gene mutation.
 - (c) Development of portal vein.
 - (d) Intestinal rotation.
 - (e) Fecal chymotrypsin.
 - (f) Zymodemes.
-

August 2008

[KT 013]

Sub. Code: 1251

D.M. DEGREE EXAMINATION

(Higher Specialities)

Branch IV – GASTROENTEROLOGY

(Revised Regulations)

Paper I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P. Code: 161251

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Discuss briefly the embryonic development of esophagus and various developmental anomalies of esophagus.
2. Describe the anatomy of sphincter of oddi. Give a detail account of sphincter of oddi dysfunction.

II. Write short notes on:

10 x 6 = 60

1. Gastric volvulus.
2. Ghrelin.
3. Gut neuropeptides.
4. Anorectal manometry.
5. Night eating syndrome.
6. Choledochal cysts.
7. Hepatic venous pressure Gradient.
8. Segments of liver.
9. Annular pancreas.
10. Secretory IgA.

August 2009

[KV 013]

Sub. Code: 1251

D.M. DEGREE EXAMINATION

(Higher Specialities)

Branch IV – GASTROENTEROLOGY

(Revised Regulations)

Paper I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P. Code: 161251

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Discuss physiology of gastric secretion and role of receptor blockers.
2. Discuss the digestion and absorption of fat and tests of fat mal absorption.

II. Write short notes on:

10 x 6 = 60

1. Paneth cell.
2. Matrix metalloproteinase.
3. Rappaports acinus.
4. Gluten.
5. Serology in inflammatory bowel diseases.
6. Bilirubin Metabolism.
7. Hepatitis 'B' virus envelope antigen.
8. Alkaline phosphatase.
9. Ig A and gut.
10. Hiatus hernia.

February 2011

[KY 013]

Sub. Code: 1251

DOCTOR OF MEDICINE (D.M.) DEGREE EXAMINATION

(Super Specialities)

Branch IV – GASTROENTEROLOGY

Revised Regulations

Common to all candidates

Paper I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P. Code: 161251

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Functional Anatomy of Gut-Associated Lymphoid Tissue and discuss current pathogenesis of IBD.
2. Describe the hepatocyte with suitable diagrams and how to approach a patient with elevated Alkaline phosphatase level.

II. Write short notes on:

10 x 6 = 60

1. Hepatic Fibrosis.
2. Prothrombin Time.
3. Terlipressin.
4. Gastric Pacemaker.
5. Short chain fatty acids.
6. DNA Repair genes.
7. Proton pump inhibitors.
8. Assessment of gastric neuromuscular function.
9. Ghrelin.
10. Pharmacotherapy for obesity.

August 2011

[KZ 013]

Sub. Code: 1251

**DOCTORATE OF MEDICINE (D.M.) DEGREE EXAMINATION
(SUPER SPECIALITIES)**

**BRANCH IV – GASTROENTEROLOGY
BASIC SCIENCES APPLIED TO THE SPECIALITY
Q.P. Code: 161251**

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

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages (Max.)	Time (Max.)	Marks (Max.)
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1. Describe the composition and function of pancreatic juice and discuss the role of pancreatic function tests.
2. Describe the normal bacterial flora of gut and discuss the role of probiotics.

11	35	15
11	35	15

II. Write notes on :

- | | | | |
|---|---|----|---|
| 1. Peyer's patches. | 4 | 10 | 7 |
| 2. Oncofetal proteins. | 4 | 10 | 7 |
| 3. Kwashiorkor. | 4 | 10 | 7 |
| 4. Celiac disease. | 4 | 10 | 7 |
| 5. Percutaneous endoscopic gastrojejunostomy. | 4 | 10 | 7 |
| 6. Sibutramine. | 4 | 10 | 7 |
| 7. Vertical banded gastroplasty. | 4 | 10 | 7 |
| 8. Binge eating disorder. | 4 | 10 | 7 |
| 9. Eosinophilic proctocolitis. | 4 | 10 | 7 |
| 10. Dermatitis Herpetiformis. | 4 | 10 | 7 |

February 2012

[LA 013]

Sub. Code: 1251

**DOCTORATE OF MEDICINE (D.M.) DEGREE EXAMINATION
(SUPER SPECIALITIES)**

**BRANCH IV – GASTROENTEROLOGY
BASIC SCIENCES APPLIED TO THE SPECIALITY**

Q.P. Code: 161251

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

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Pathogenesis, investigations and treatment of gastric cancer.	16	35	15
2. Causes, clinical evaluation and investigations of obstructive jaundice.	16	35	15

II. Write notes on :

1. Secondary prophylaxis for portal hypertensive bleeding.	4	10	7
2. Viral oesophagitis	4	10	7
3. Bariatric surgery	4	10	7
4. Managing drug resistance in hepatitis B virus treatment	4	10	7
5. Indications for anti- Helicobacter pylori treatment and discuss different treatment regimens	4	10	7
6. Developmental anomalies of pancreas causing pancreatitis	4	10	7
7. Nutritional assessment in patient with malabsorption syndrome	4	10	7
8. Side-effects of Tacrolimus, interactions of other drugs with Tacrolimus	4	10	7
9. Parasites causing malabsorption	4	10	7
10. Radiation induced colitis	4	10	7

[LB 013]

AUGUST 2012

Sub. Code: 1251

D.M – GASTROENTEROLOGY

Paper – I BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P. Code: 161251

Time: 3 hours
(180 Min)

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on:

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

- | | | | |
|--|----|----|----|
| 1. Discuss the pathogenesis of sporadic as well as familial colorectal cancer. Briefly discuss the strategies to screen for colorectal cancer in relatives of the index patient. | 16 | 35 | 15 |
| 2. How do you classify the causes of jaundice? Discuss the causes and management of isolated hyperbilirubinemia in detail. | 16 | 35 | 15 |

II. Write notes on:

- | | | | |
|---|---|----|---|
| 1. Pharmacotherapy of portal hypertensive bleeding. | 4 | 10 | 7 |
| 2. Immunoglobulin A : importance in hepatic and GI systems. | 4 | 10 | 7 |
| 3. Management of complications of obesity. | 4 | 10 | 7 |
| 4. Management of drug resistant hepatitis B virus. | 4 | 10 | 7 |
| 5. Tests to detect Helicobacter pylori infection. | 4 | 10 | 7 |
| 6. Pancreas divisum : investigations, associated disorders, treatment. | 4 | 10 | 7 |
| 7. Ursodeoxycholic acid : mechanisms of action and indications. | 4 | 10 | 7 |
| 8. Side-effects of cyclosporine, interactions of other drugs with cyclosporine. | 4 | 10 | 7 |
| 9. Strongyloidiasis : clinical manifestations and management. | 4 | 10 | 7 |
| 10. Antibiotic associated colitis : investigations and treatment. | 4 | 10 | 7 |

FEBRUARY 2013

LC 013

Sub: Code:1251

D.M –GASTROENTEROLOGY

Paper – I BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P. Code : 161251

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

Maximum : 100 marks

I. Elaborate on:

(2 x 15 marks=30 marks)

1. Discuss the " esophageal motility in health and disease".
2. Discuss the embryonic development of pancreas and congenital anomalies of pancreas

II Write notes on

(10 x7 marks=70 marks)

- 1) Discuss briefly the various steps evolved in the metabolism of vitamin B12
- 2) Mention the role played by Strongyloides stercoralis in various GI conditions
- 3) What is the blood supply of Pancreas?
- 4) Write short notes on "Gut preferred fuels"
- 5) Briefly mention criteria for diagnosing Night eating syndrome.
- 6) Elaborate on the role played by Kupffer cell in various liver disorders/ dysfunctions
- 7) How do you manage a patient suffering from Malt lymphoma?
- 8) Write briefly about the role played by Ghrelin
- 9) Discuss the importance of Immunohistochemistry in liver disease
- 10) Mention the diagnostic criteria and its implications in managing Barrett's Metaplasia

(LD 013)

AUGUST 2013

Sub. Code:1251

D.M. – GASTROENTEROLOGY

Paper – I BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P.Code: 161251

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Describe the vascular supply of colon; Discuss the pathophysiology and causes of ischaemia of colon.
2. Describe the macroscopic and microscopic structure of pancreas. Discuss the pathogenesis of acute pancreatitis.

II. Write notes on:

(10X7=70)

1. Motilin.
2. Dendritic cells.
3. Tumour Suppressor Genes.
4. Terlipressin.
5. Zenker's Diverticulum.
6. Gastric acid secretion.
7. Vitamin D.
8. Interferons.
9. Apoptosis.
10. Enteric microbiota.

D.M. – GASTROENTEROLOGY
Paper – I BASIC SCIENCES APPLIED TO THE SPECIALITY
Q.P.Code: 161251

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Discuss the role of vasoactive drugs used in the management of portal hypertension.
2. Discuss briefly the embryology of the biliary tract and describe in detail choledochal cyst.

II. Write notes on:

(10X7=70)

1. Briefly outline the metabolism of sodium.
2. What are the advantages of Histology activity index (HAI)?
3. Analyse the role of Intestinal flora in IBD.
4. Mention the role of various Breath tests in malabsorption.
5. What is the importance of Transient lower esophageal relaxations in GERD ?
6. Write short notes on “Pancreatic Polypeptide.”
7. Discuss in brief the role played by Leptin in various GI disorders.
8. Mention the role of Genetics in Wilson’s disease.
9. Discuss the various Segments of liver and its importance in managing various hepatobiliary problems.
10. What is the importance of Interstitial cells of Cajal?

[LH 013]

AUGUST 2015

Sub. Code: 1251

D.M. – GASTROENTEROLOGY

PAPER I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P. Code : 161251

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the epidemiology, pathogenesis, diagnosis, management and complications of gastro esophageal reflux disease (GERD).
2. Describe the hepatocyte and discuss bile acids in health and disease.

II. Write notes on :

(10 x 7 = 70)

1. Oncogenes
2. Pathogenesis of pain in chronic pancreatitis.
3. Kupffer cells.
4. HFE gene mutation.
5. Biomarkers of hepatic fibrosis.
6. 5-aminosalicylic acid.
7. Meckel's diverticulum.
8. Solitary rectal ulcer.
9. Gut mucosal IgA.
10. Hydrogen breath test.

[LI 013]

FEBRUARY 2016

Sub. Code: 1251

D.M. – GASTROENTEROLOGY

PAPER I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P. Code : 161251

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the epidemiology, pathogenesis and spectrum of Ethanol related liver disease.
2. Discuss the embryonal development and the congenital anomalies associated with the small and large intestines.

II. Write notes on :

(10 x 7 = 70)

1. Helicobacter pylori infection and Gastric cancer.
2. Hepatitis B virus mutants.
3. Vitamin B 12 absorption.
4. Cholecystokinin.
5. Anorectal manometry.
6. Choledochal cyst.
7. Unconjugated Hyperbilirubinaemia.
8. Extra hepatic portal vein obstruction.
9. Premalignant lesions for Colonic malignancy.
10. Small bowel biopsy.

D.M. – GASTROENTEROLOGY

Paper I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P.Code: 161251

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the embryonic development of Esophagus and the congenital anomalies of esophagus.
2. Discuss the microscopic anatomy of Gastric mucosa and various mechanisms involved in the regulation of Gastric acid secretion.

II. Write notes on:

(10 x 7 = 70)

1. Assessment of Hepatic fibrosis.
2. Pancreatic Divisum.
3. Premalignant conditions of Stomach.
4. Hepatic Osteodystrophy.
5. Vasoactive Intestinal Polypeptide.
6. Cyclical Vomiting Syndrome.
7. Histopathological findings in Ulcerative Colitis.
8. Carcino embryonic antigen.
9. Gastric Volvulus.
10. Cameron ulcer.

D.M. – GASTROENTEROLOGY

Paper I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P.Code: 161251

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Describe in brief the embryology of pancreas. Mention the congenital anomalies and write brief note on each of the anomalies.
2. What is the pathogenesis of Nonalcoholic fatty liver disease? Describe in detail the various mechanisms involved.

II. Write notes on: **(10 x 7 = 70)**

1. Gastrointestinal abnormalities in scleroderma.
2. Refeeding syndrome.
3. Alpha Foeto Protein (α FP).
4. Precancerous lesions of esophagus.
5. Enterocyte.
6. Anorectal manometry.
7. HELLP syndrome.
8. Minimal hepatic encephalopathy.
9. HVPG measurement, applications and limitations.
10. Ursodeoxycholic acid (UDCA) uses and indications.

D.M. – GASTROENTEROLOGY

Paper I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P.Code: 161251

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: (2 x 15 = 30)

1. Discuss the digestion and absorption of fat and tests of fat malabsorption.
2. Describe the surface anatomy, segmental anatomy and acinar microanatomy of liver and their clinical importance in various situations.

II. Write notes on: (10 x 7 = 70)

1. The role of Interdigestive migrating motor complex in digestion.
2. What is the Value of Prothrombin time in liver disorders?
3. Briefly write on the role of cyclic vomiting syndrome.
4. Mention briefly the role of iron in hepatic disorders.
5. PINES- what is its importance in gastroenterology?
6. Mention the utility of mucosal protective agents in peptic ulcer disease.
7. Mention the criteria of ROME II in pelvic floor dyssynergia.
8. Levosulphride.
9. Role of radionuclide scanning in gastroenterology.
10. Pancreatic function Tests.

D.M. – MEDICAL GASTROENTEROLOGY

Paper I – BASIC SCIENCES APPLIED TO THE SPECIALITY

Q.P.Code: 161251

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Describe the pathophysiology of liver injury in alcoholic liver disease.
2. What is the epidemiology, pathogenesis, staging systems, Diagnosis and management of IPSID (immuno proliferative small intestinal disease)?

II. Write notes on: **(10 x 7 = 70)**

1. What are the new insights in the management of diabetic gastro paresis?
2. What is the dosage, uses and side effects of Imatinib Mesylate?
3. Write briefly on Annular Pancreas.
4. Mention the tests employed in the diagnosis of Protein losing enteropathy.
5. Write briefly on the anatomy of Peyer's patches.
6. Mention the important characteristics of Histopathology of Hepatocellular carcinoma.
7. Mention the importance of necrotic migratory erythema.
8. Giardiasis.
9. Mismatch instability.
10. Parietal cell.
