

Reg. No.										
----------	--	--	--	--	--	--	--	--	--	--

## MANIPAL UNIVERSITY

DM (GASTROENTEROLOGY) DEGREE EXAMINATION – JULY 2017

SUBJECT: PAPER I: BASIC SCIENCES AS APPLICABLE TO GASTROENTEROLOGY

Monday, July 10, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays (answer in approximately 1500 words):**

1. Describe normal gastric acid secretion. Explain the mechanism of action of Proton Pump Inhibitors.

(20 marks)

2. Describe the structure of hepatitis B virus (HBV) and the natural history HBV infection.

(20 marks)

3. **Short Essays (Answer in 400 - 500 words):**

3A. Premalignant conditions of the gall bladder

3B. Oesophageal impedance testing

3C. Structure of the liver acinus

3D. Short chain fatty acids

3E. Strongyloides stercoralis

3F. L ornithine L aspartate

(10 marks × 6 = 60 marks)



**MANIPAL UNIVERSITY****DM (GASTROENTEROLOGY) DEGREE EXAMINATION – JULY 2017****SUBJECT: PAPER II: GASTROENTEROLOGY AND HEPATOLOGY**

Tuesday, July 11, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays (answer in approximately 1500 words):**

1. Outline the current concepts in the pathogenesis and management of non-alcoholic fatty liver disease.

(20 marks)

2. Describe the pathology of gastric premalignant lesions and the techniques for the detection and management of early gastric cancer.

(20 marks)

3. **Short Essays (Answer in 400 - 500 words):**

3A. Staging oesophageal cancer

3B. Mucinous cystadenoma of pancreas

3C. Reactivations of hepatitis B infection

3D. Treatment of anal fissure

3E. Chemotherapy of advanced colorectal cancer

3F. Tuberculous peritonitis

(10 marks × 6 = 60 marks)



**MANIPAL UNIVERSITY**  
**DM (GASTROENTEROLOGY) DEGREE EXAMINATION – JULY 2017**  
**SUBJECT: PAPER III: GASTROENTEROLOGY & HEPATOLOGY**

Wednesday, July 12, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays: (Answer in approximately 1500 words):**

1. Discuss the diagnostic evaluation and management of acute severe ulcerative colitis.  
(20 marks)
2. Outline the pathogenesis, diagnosis and management of Hepato-renal syndrome.  
(20 marks)

3. **Short Essays (Answer in 400 - 500 words):**

- 3A. Faecal elastase
- 3B. Colonic diverticular bleed
- 3C. Refractory coeliac disease
- 3D. Adenoma like dysplasia in ulcerative colitis
- 3E. Gall bladder polyp
- 3F. Imatinib

(10 marks × 6 = 60 marks)



**MANIPAL UNIVERSITY****DM (GASTROENTEROLOGY) DEGREE EXAMINATION – JULY 2017****SUBJECT: PAPER IV: RECENT ADVANCES IN GASTROENTEROLOGY**

Thursday, July 13, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays (answer in approximately 1500 words):**

1. Classify hepatic encephalopathy. Describe the diagnosis, management and prevention of occult (subclinical) hepatic encephalopathy.

(20 marks)

2. Discuss the role of newer imaging modalities in the staging of common gastrointestinal cancers.

(20 marks)

3. **Short Essays (Answer in 400 - 500 words):**

3A. Acoustic radiation force impulse elastography

3B. Image enhanced endoscopy for colonic polyps

3C. Portal vein thrombosis in cirrhosis

3D. Vedolizumab

3E. Carbon dioxide insufflation at endoscopy

3F. Endoscopic submucosal dissection

(10 marks × 6 = 60 marks)

