

MANIPAL ACADEMY OF HIGHER EDUCATION
MS (GENERAL SURGERY) DEGREE EXAMINATION – DECEMBER 2023
PAPER I

Monday, December 04, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Draw illustrations wherever necessary.**

✍ **Essay questions:**

1. Describe the clinical features of the various degrees of shock severity. Describe the standard protocol for monitoring a patient in shock. Enumerate the clinical and investigational monitors for organ and systemic perfusion

(6+4+5 = 15 marks)

2. Discuss the Malnutrition universal screening tool (MUST). Outline the complications of enteral nutrition. Outline the complications of parenteral nutrition.

(5+5+5 = 15 marks)

3. **Write short notes:**

3A. Describe major safety concerns of cell based therapy and tissue engineering

3B. Outline the Southampton wound grading system

3C. Define the different types of research studies

3D. Amoeboma of caecum: Elaborate on its predisposing factors, clinical features and differential diagnosis

3E. Clinical practice of radiation oncology operates within the limits defined by the 5'R's. Explain the 5'R's of radiotherapy

3F. What are patient safety incidents? Describe the factors that contribute to patient safety incidents

3G. Enumerate the common special stains used in histopathological examination along with the conditions they diagnose

3H. MEN2B: List the genes implicated, inheritance type, associated tumors and the strategy for prevention or early diagnosis

3I. Enumerate the local anaesthetic agents. Mention their maximum doses and salient properties

3J. Discuss the indications for the various therapeutic gastroenterology procedures

(7 marks × 10 = 70 marks)



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Tuesday, December 05, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer all the questions.**

✍ **Draw illustrations wherever necessary.**

✍ **Essay questions:**

- 1A. What are the common features of major disasters? List the factors influencing rescue and relief efforts.
- 1B. Draw the organisation chart for disaster management Draw a time-line graph showing the type of injuries encountered at different times in a disaster.
- 1C. Describe the triage categories with examples, detailing the Prioritisation, Colour coding, Medical needs, Clinical status

(2+5+8 = 15 marks)

2. What are the causes of intussusception in children?
Outline the symptoms and signs of intussusception. List the relevant investigations with salient features observed.
Describe the non-operative and operative treatment for this condition

(3+3+3+6 = 15 marks)

3. **Write short notes:**

- 3A. What is Pott's puffy tumor? Describe the clinical features and treatment. (7 marks)
- 3B. Describe the components of the cardiopulmonary bypass (CPB) circuit. List the alternative uses of cardiopulmonary bypass (CPB) (7 marks)
- 3C. What is mpMRI? Describe the role of MRI in Urology (7 marks)
- 3D. List the causes of splenomegaly. Outline the indications for splenectomy. Describe the preventive steps and management of postoperative complications (7 marks)
- 3E. Management of complications of bariatric surgery (7 marks)

- 3F. Describe the surgical anatomy of the liver. List the causes of acute liver failure. Summarize the supportive therapy for acute liver failure. (7 marks)
- 3G. List the non-pancreatic causes of raised serum amylase. Describe the features in the various imaging modalities to detect pancreatic diseases (7 marks)
- 3H. What is proctidemia? Describe the Altemeier's procedure. List the alternative procedures available. (7 marks)
- 3I. Describe the physiology of the large intestine. Classify intestinal polyps (5+2 = 7 marks)
- 3J. What is Boerhaave's syndrome? What are its clinical features? Outline the investigations and treatment plan for this condition. (7 marks)



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PAPER III

Wednesday, December 06, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Draw illustrations wherever necessary.

✍ Essay questions:

1. Describe the laparoscopic anatomy of the extrahepatic biliary tree and gall bladder using a picture. Write a word about the variations in this anatomy. Enlist the types of bile duct injuries and their management strategies.

(3+4+4+4 = 15 marks)

2. A 26 year old motorcyclist was brought to emergency room with history of an accident. On examination he was absolutely normal with no external injury. After 4 hours of injury he was again brought in altered sensorium and tonic movements of both limbs and pin point right pupil. What do you do in emergency room to for this patient? After the initial resuscitation and scans, patient was taken to operating room for surgery. Describe the principle in treatment of intracranial bleed evacuation. Write a note on post-operative complication and their management of this patient.

(5+5+5 = 15 marks)

3. Write short notes:

3A. Field blocks in inguinal hernia surgery.

3B. Principles of incisions on the breast.

3C. Enhanced recovery after surgery protocol in surgical practice.

3D. Circumcision- Indication and procedure

3E. Video assisted thoracic surgery

3F. Various abdominal incisions- advantages & disadvantages

3G. Neck dissection- types, incisions, reconstruction

3H. Image guided aspirations- Indications, usage and adverse effects.

3I. Intercostal tube drainage- Techniques and complications.

3J. Patient controlled analgesia

(7 marks × 10 = 70 marks)



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PAPER IV

Thursday, December 07, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Draw illustrations wherever necessary.**

✍ **Essay Questions:**

1. Discuss the recent advances in management of pancreatic necrosectomy, different methods with brief details of procedure and add a note on advantages over classical open procedure
(10+5 = 15 marks)

2. Discuss the various surgical management options in a patient with BMI of 36 and diagnosed to have type 2 diabetes since past 10 years. List all the advantages and complications of each procedure.
(10+5 = 15 marks)

3. **Write short notes:**

- 3A. Assessment of resectability in pancreatic carcinoma
- 3B. Spyglass
- 3C. Endovenous laser surgery
- 3D. Trans anal minimally invasive surgery
- 3E. Surgical anatomy in laparoscopic inguinal hernia repair
- 3F. Guidelines for perioperative care in enhanced recovery after colorectal surgery
- 3G. Staplers in surgery
- 3H. Robotics in surgery
- 3I. Creating pneumoperitoneum in laparoscopy, different methods and complications
- 3J. BIRADS grades and its significance

(7 marks × 10 = 70 marks)

