

MANIPAL ACADEMY OF HIGHER EDUCATION
MS (GENERAL SURGERY) DEGREE EXAMINATION – JANUARY 2025
(REGULAR)
PAPER I

Tuesday, January 14, 2025

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

 **Answer ALL the questions.**

 **Draw neat labeled diagrams, flow charts or algorithms where appropriate.**

1. Describe the staging of pressure injuries and management of sacral pressure ulcer.
2. Discuss the implications of COVID – 19 pandemic in the field of surgery.
3. Describe the aetiopathogenesis, clinical features and management of a case of mycetoma of the foot.
4. Mention common haemostatic techniques used intraoperatively and discuss electrosurgery
5. Describe the basic methods in diagnostic molecular pathology
6. Discuss presenting and publishing a scientific research
7. Fluid and electrolyte changes in gastric outlet obstruction
8. Discuss the principles of chronic pain management.
9. Discuss day case surgery
10. Describe various formulae used to calculate burns surface area

(10 marks × 10 = 100 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
MS (GENERAL SURGERY) DEGREE EXAMINATION – JANUARY 2025
(2023 Regulation)
PAPER II

Wednesday, January 15, 2025

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer all the questions.**

✍ **Draw neat labeled diagrams, flow charts or algorithms where appropriate.**

1. A 30-year-old female presents with left upper limb pain for 1 week and gangrene of the left index finger for 3 days. On examination there is a hard fixed swelling in the left supraclavicular fossa and distal pulses of the left upper limb are diminished.
 - 1A. What is the likely diagnosis?
 - 1B. Discuss different clinical tests performed in this case.
 - 1C. Describe the surgical treatment of choice and different approach in this patient.
 - 1D. Discuss Derkash's classification to rate the outcomes of surgery.

2. 55-year-old male hypertensive with history of Marfan's syndrome was found to have palpable pulsatile mass in the abdomen above the umbilicus. On evaluation, abdomen aortic dilatation with a diameter of 6cms.
 - 2A. What are the preoperative evaluations will you do in this patient?
 - 2B. Discuss endovascular repair of abdominal aortic aneurysms (EVAR).
 - 2C. Discuss different types of post EVAR endoleak and their management.

3. 75-year-old male presented with lower urinary tract symptoms and hematuria. Digital rectal examination showed hard, nodular prostate. Prostate-specific antigen (PSA) is 12ng/ml
 - 3A. What are the significance of PSA velocity and PSA density in the diagnosis?
 - 3B. What is the role of Trans Rectal Ultrasound in this case?
 - 3C. How will you treat clinically localized NCCN intermediate risk group?

4. 30-year-old man presents to surgery OPD with history of painless enlargement of left half of scrotum since one month. On examination left testis was enlarged and hard in consistency, testicular sensation was lost. Abdominal examination no mass was palpable.
 - 4A. Classify testicular neoplasm.
 - 4B. How will you investigate this patient and the role of tumor markers?
 - 4C. Role of Retroperitoneal lymph node dissection

5. An infant came to the triage with sudden onset of intermittent, severe, crampy, progressive abdominal pain, accompanied by inconsolable crying and drawing up of the legs toward the abdomen. Also had history of fever 5 days back. On examination "sausage-shaped" mass in the right side of the abdomen was palpable.
 - 5A. Most probable diagnosis.

- 5B. Discuss the ultrasound findings to diagnose the condition.
- 5C. What are the non-operative methods to treat this condition and its principles?
6. 45-year-old male patient came with the complaints of swelling in front of the neck, which moves with deglutition. On examination both the lobes of thyroid were enlarged. Investigations showed normal thyroid function tests, USG showed TIRADs category 4 with no significant neck nodes. FNAC revealed medullary carcinoma of the thyroid.
- 6A. How will you evaluate this patient before planning for definitive surgery?
- 6B. Role of genetic Screening in sporadic medullary carcinoma of thyroid?
- 6C. Role of prophylactic neck dissection in this patient?
- 6D. What are the recent guidelines (ESMO guidelines) regarding follow up of this patient?
7. 32-year-old female, nulliparous came to surgery OPD with the complaints of painless left breast lump of 2x2cm. Evaluated further with imaging, showed BIRADS category 4B and biopsy revealed infiltrating ductal carcinoma with hormonal status of ER, PR positive and Her2 neu negative. Metastatic evaluation showed no distant metastasis.
- 7A. How will you counsel and communicate to the patient and party regarding the diagnosis, surgical procedure and further treatment including need of hormonal therapy and Genetic counselling?
- 7B. Techniques of Sentinel lymph node biopsy including newer techniques.
8. 50-year-old obese lady with past history of hysterectomy (lower midline) is diagnosed to have large incisional hernia of the defect more than 10cm.
- 8A. How will you prepare her for elective incisional hernia surgery?
- 8B. Describe the different surgical approaches and principles of treating ventral hernia.
- 8C. Describe minimally invasive and endoscopic anterior component separation.
9. 40-year-old female has history of recurrent renal calculi with a serum calcium level of 14mg/dl and elevated PTH. Further evaluated and diagnosed to have left parathyroid adenoma
- 9A. What are the preoperative noninvasive and invasive localization methods to identify the parathyroid gland?
- 9B. Discuss minimal invasive parathyroidectomy.
- 9C. What are the post-operative complications of parathyroidectomy?
10. 39-year-old male with symptoms of left parotid gland enlargement was evaluated and diagnosed to have left sided pleomorphic adenoma of the parotid gland.
- 10A. Describe surgical anatomy of facial nerve and anatomical structures commonly used to identify the facial nerve during parotid surgery.
- 10B. Discuss facial nerve reconstruction.
- 10C. Complications of parotidectomy.
- (10 marks × 10 = 100 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
MS (GENERAL SURGERY) DEGREE EXAMINATION – JANUARY 2025
(REGULAR)
PAPER III

Thursday, January 16, 2025

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Draw neat labeled diagrams, flow charts or algorithms where appropriate.**

1. A 58-year-old male presents with a 4.5cm lesser curve gastric adenocarcinoma, staged as T3N1M0, initial staging laparoscopy shows no peritoneal disease
 - 1A. Describe your systematic approach to D2 lymphadenectomy.
 - 1B. Detail anatomical landmarks for each lymph node station.
 - 1C. Compare and contrast available reconstruction options.
2. A 62-year-old male with rectal cancer has an MRI showing a T3N1 tumor at 5cm from the anal verge.
 - 2A. Discuss your multidisciplinary approach.
 - 2B. Detail your operative planning and technique.
 - 2C. Describe key steps in total mesorectal excision.
 - 2D. Outline stoma considerations and reconstruction options
3. Critically assess the effectiveness of different surgical techniques in the management of chronic anal fissures. What are the potential risks and benefits of each approach?
4. A 35-year-old female with Graves' disease is scheduled for total thyroidectomy. The gland is large with retrosternal extension.
 - 4A. Outline your preoperative optimization.
 - 4B. Describe your surgical approach
 - 4C. Detail nerve identification and preservation techniques
 - 4D. Discuss specific complications and their management
5. A 70-year-old woman on anticoagulation for atrial fibrillation presents with massive upper GI bleeding. Endoscopy reveals a large duodenal ulcer with active spurting.
 - 5A. Outline your immediate management
 - 5B. If bleeding persists despite endoscopic therapy, what are your next steps?
 - 5C. Discuss the role of angiographic embolization versus surgery in this scenario.
6. Given a patient with a large incisional hernia, how would you apply the principles of the component separation technique? What are the key steps in this procedure.

7. A 62-year-old male presents with a 4cm colorectal liver metastasis in segment 7
- 7A. Detail your preoperative assessment including CT volumetry
- 7B. Describe specific technical challenges of segment 7 resection.
- 7C. Outline your surgical planning including imaging requirements.
8. A 55-year-old female presents with a 20cm retroperitoneal mass displacing the right kidney. CT shows a well-encapsulated mass arising from the right retroperitoneum, Adjacent to IVC and renal vessels, displacing but not involving major vessels, No distant metastases.
- 8A. Detail the essential preoperative investigations and discuss key patient counseling points, preoperative planning
- 8B. Outline your surgical approach, principles of en-bloc resection and postoperative follow-up planning.
9. Critically assess the role of isolated limb perfusion in managing extremity soft tissue sarcomas. What are the indications and potential complications of this technique.
10. A 65-year-old diabetic male presents with bilateral critical limb ischemia. Right foot has dry gangrene of 2 toes with rest pain. Left leg has a non-healing ulcer on the lateral malleolus. CT angiogram shows bilateral superficial femoral artery occlusions with heavily calcified tibial vessels.
- 10A. Prioritize your management approach for each limb.
- 10B. Detail your revascularization strategy.
- 10C. Discuss the role of adjunctive procedures

(10 marks × 10 = 100 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
MS (GENERAL SURGERY) DEGREE EXAMINATION – JANUARY 2025
(REGULAR)
PAPER IV

Friday, January 17, 2025

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Draw neat labeled diagrams, flow charts or algorithms where appropriate.**

1. Discuss the uses of three- dimensional printing in surgery.
2. Discuss litigation and how to avoid it.
3. Discuss the clinical features and management of necrotizing fasciitis.
4. Describe the novel technologies for margin assessment in breast cancer surgery.
5. Describe novel oral anticoagulants.
6. Describe spyglass cholangioscopy.
7. Discuss the recent advances in the management of gastroesophageal reflux disease.
8. Discuss the ligation of intersphincteric fistulous tract.
9. Describe the classification and management of complications of diverticular disease of the sigmoid colon.
10. Discuss the advantages and disadvantages of robotic surgery.

(10 marks × 10 = 100 marks)

