

INI CET Surgery

Sample Paper – 9

Duration: 14 Minutes

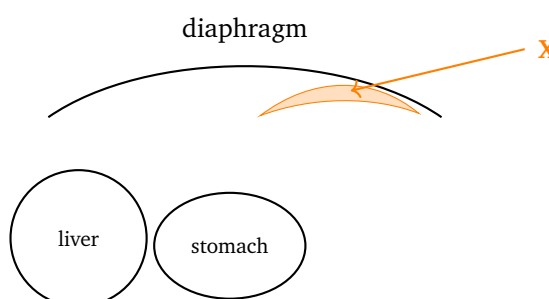
Maximum Marks: 15

Instructions

- This paper contains **15** Multiple Choice Questions (Single Best Response), modelled on the General Surgery content of **INI CET** (Institutes of National Importance Combined Entrance Test) conducted by AIIMS New Delhi.
- The **15-question** length matches the number of Surgery items you actually meet in the real 200-question paper.
- Each correct answer carries **+1 mark**. There is **negative marking of one-third (0.33) mark** for every incorrect answer; unattempted questions carry no penalty.
- Every question has **exactly one best answer**. Choose the single most appropriate option for the clinical scenario described.
- Attempt this practice paper in one timed sitting of about **14 minutes**, the pace the real computer-based test demands.

Gastrointestinal Surgery

Q1. An erect chest radiograph of a patient with sudden severe abdominal pain shows a thin lucent crescent of free gas beneath the right hemidiaphragm (marked X). This finding most strongly indicates:



(A) Acute appendicitis without perforation



- (B) Acute calculous cholecystitis
- (C) Perforation of a hollow viscus (pneumoperitoneum)
- (D) Ureteric (renal) colic

Q2. A young man presents with sudden onset severe epigastric pain, board-like abdominal rigidity, guarding and absent bowel sounds. The most likely diagnosis is:

- (A) Generalised peritonitis from a perforated peptic ulcer
- (B) Acute pancreatitis
- (C) Uncomplicated gastritis
- (D) Small-bowel adhesive obstruction

Q3. For a patient with generalised peritonitis due to a perforated duodenal ulcer, after resuscitation the standard initial surgical management is:

- (A) Intravenous antibiotics alone with no operation
- (B) Endoscopic clipping of the perforation
- (C) Exploratory laparotomy with peritoneal lavage and omental (Graham) patch repair
- (D) Elective partial gastrectomy after six weeks

Hepatobiliary and Pancreatic Surgery

Q4. A malignant tumour arising at the confluence of the right and left hepatic ducts, presenting with progressive painless obstructive jaundice, is known as:

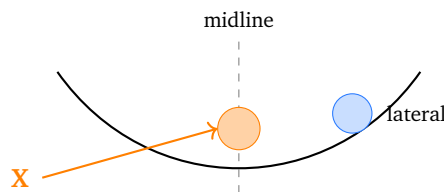
- (A) Klatskin tumour (hilar cholangiocarcinoma)
- (B) Gallbladder carcinoma
- (C) Hepatocellular carcinoma
- (D) Ampullary adenoma



- Q5.** A gallbladder carcinoma is discovered incidentally on histology after a simple cholecystectomy and is staged T2 (invading perimuscular connective tissue). The appropriate management is:
- (A) Observation alone with no further surgery
 - (B) Re-operation with extended (radical) cholecystectomy including liver-bed resection and portal lymphadenectomy
 - (C) Palliative biliary stenting only
 - (D) Immediate chemotherapy with no further surgery

Breast and Endocrine Surgery

- Q6.** In the neck diagram, a cystic swelling lying in the **midline** (marked X) that moves upward on protrusion of the tongue is a:

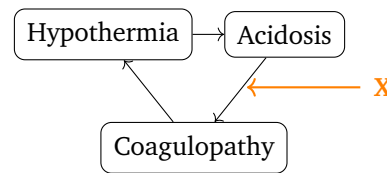


- (A) Branchial cyst
 - (B) Thyroglossal cyst
 - (C) Cystic hygroma
 - (D) Carotid body tumour
- Q7.** A soft, painless, brilliantly transilluminant cystic swelling in the posterior triangle of the neck of an infant, present since birth, is most consistent with a:
- (A) Thyroglossal cyst
 - (B) Branchial cyst
 - (C) Cystic hygroma
 - (D) Enlarged reactive lymph node

Trauma and Critical Care



- Q8.** The flow diagram shows the self-perpetuating “lethal triad” of the exsanguinating trauma patient that damage control surgery aims to interrupt. Two vertices are hypothermia and acidosis. The third, marked X, is:



- (A) Hyperkalaemia
(B) Hypoglycaemia
(C) Sustained hypertension
(D) Coagulopathy
- Q9.** During massive transfusion for a major haemorrhaging trauma patient, the recommended balanced ratio of packed red cells to fresh frozen plasma to platelets is approximately:
- (A) 4 : 1 : 1
(B) 1 : 1 : 1
(C) 2 : 1 : 0
(D) 3 : 2 : 1
- Q10.** The primary goal of the first operation in a damage control laparotomy for an unstable trauma patient is:
- (A) Complete definitive anatomical reconstruction at the first sitting
(B) Rapid control of haemorrhage and contamination with an abbreviated laparotomy and temporary abdominal closure
(C) Immediate primary bowel anastomosis regardless of physiology
(D) Formal abdominal wall reconstruction with mesh

Urology and Vascular Surgery

- Q11.** A man with a pelvic fracture has blood at the external urethral meatus, inability to pass urine and a high-riding prostate on rectal examination. These findings indicate injury to the:



- (A) Membranous (posterior) urethra
- (B) Dome of the bladder
- (C) Bulbar (anterior) urethra
- (D) Distal ureter

Q12. Blunt lower abdominal trauma to a patient with a full bladder causes an intraperitoneal rupture of the bladder dome, with urine leaking freely into the peritoneal cavity. The appropriate management is:

- (A) Urethral catheter drainage alone for two weeks
- (B) Simple observation with serial imaging
- (C) Suprapubic needle aspiration only
- (D) Exploratory laparotomy with operative repair of the bladder

Surgical Oncology and Miscellaneous

Q13. A persistent isolated enlarged cervical lymph node in an adult is suspected to be lymphoma. The single best investigation to establish the histological diagnosis is:

- (A) Fine-needle aspiration cytology
- (B) Incisional biopsy of the node
- (C) Excisional lymph node biopsy
- (D) Serum lactate dehydrogenase alone

Q14. The most dangerous long-term complication that a splenectomised patient must be counselled about is:

- (A) Portal vein thrombosis
- (B) Left subphrenic abscess
- (C) Reactive thrombocytosis
- (D) Overwhelming post-splenectomy infection (OPSI) by encapsulated organisms



- Q15.** Before a planned elective splenectomy, vaccination against encapsulated organisms (pneumococcus, meningococcus and *Haemophilus influenzae* type b) should ideally be given:
- (A) At least 2 weeks before the elective operation
 - (B) On the morning of surgery
 - (C) Only if the patient later develops an infection
 - (D) Six months after the operation



Detailed Solutions

Q1.

Solution

Concept – free gas under the diaphragm: An erect film separates any escaped intraperitoneal air as a crescent above the liver.

Step 1 – read the sign: The lucent crescent marked X is **pneumoperitoneum**, free gas trapped under the diaphragm.

Step 2 – infer the cause: Free gas means a **hollow viscus has perforated**, most often a peptic ulcer, releasing luminal air.

Why the other options are wrong:

- A, appendicitis without perforation: no free gas until it perforates.
- B, cholecystitis: inflames the gallbladder wall but does not release free air.
- D, ureteric colic: a retroperitoneal, non-gas-forming process.

Final Answer: Perforation of a hollow viscus ⇒ **C**

Answer: (C) [Go Back to Q1](#)

Q2.

Solution

Concept – the acute surgical abdomen: Sudden pain with rigidity signals peritoneal irritation.

Step 1 – read the signs: Sudden epigastric pain with **board-like rigidity**, guarding and silent bowel sounds is classic generalised peritonitis.

Step 2 – name the source: The commonest cause of this picture is a **perforated peptic ulcer** spilling acid and gas into the peritoneum.

Why the other options are wrong:

- B, pancreatitis: severe pain but usually without early board-like rigidity, and no pneumoperitoneum.
- C, gastritis: pain without peritonism.
- D, adhesive obstruction: colicky pain with distension and active or high-pitched sounds, not silent rigidity.

Final Answer: Generalised peritonitis from a perforated peptic ulcer ⇒ **A**

Answer: (A) [Go Back to Q2](#)



Q3.

Solution

Concept – managing a perforated peptic ulcer: Source control plus peritoneal toilet is the surgical principle.

Step 1 – resuscitate first: Fluids, nasogastric decompression, analgesia and broad-spectrum antibiotics precede surgery.

Step 2 – operate: Standard care is **exploratory laparotomy with thorough peritoneal lavage and an omental (Graham) patch** closure of the perforation.

Why the other options are wrong:

- A, antibiotics alone: reserved only for rare, sealed, stable non-operative cases, not generalised peritonitis.
- B, endoscopic clipping: not standard for a free duodenal perforation with peritonitis.
- D, elective gastrectomy: not the emergency operation; definitive acid-reducing surgery is rarely needed in the PPI era.

Final Answer: Laparotomy, lavage and omental patch repair ⇒ C

Answer: (C) [Go Back to Q3](#)

Q4.

Solution

Concept – cholangiocarcinoma by site: A bile-duct cancer is named by where it arises.

Step 1 – locate the tumour: A cancer at the **confluence of the right and left hepatic ducts** is a hilar cholangiocarcinoma.

Step 2 – give the eponym: This hilar lesion is the **Klatskin tumour**, presenting with painless progressive obstructive jaundice.

Why the other options are wrong:

- B, gallbladder carcinoma: arises in the gallbladder, not at the ductal confluence.
- C, hepatocellular carcinoma: a hepatocyte tumour, usually on a cirrhotic liver with a raised AFP.
- D, ampullary adenoma: a benign lesion at the ampulla of Vater, lower in the biliary tree.



Final Answer: Klatskin tumour (hilar cholangiocarcinoma) ⇒ A

Answer: (A) [Go Back to Q4](#)

Q5.

Solution

Concept – incidental gallbladder cancer: Depth of invasion decides whether re-operation is needed.

Step 1 – read the stage: A T2 tumour invades the perimuscular connective tissue, carrying a real risk of residual disease and nodal spread.

Step 2 – choose the operation: T2 disease warrants **re-operation with extended (radical) cholecystectomy**, resecting the adjacent liver bed (segments IVb/V) and the portal lymph nodes.

Why the other options are wrong:

- A, observation: undertreats a T2 cancer that has already breached the muscle layer.
- C, stenting: a palliative measure, not appropriate for potentially curable disease.
- D, chemotherapy alone: not curative here; surgery is the mainstay.

Final Answer: Extended (radical) re-resection ⇒ B

Answer: (B) [Go Back to Q5](#)

Q6.

Solution

Concept – neck swellings by position and movement: Location and movement on tongue protrusion localise the lesion.

Step 1 – read the diagram: The swelling marked X sits in the **midline** and moves up when the tongue is protruded.

Step 2 – name it: That behaviour defines a **thyroglossal cyst**, tethered along the thyroglossal tract to the foramen caecum of the tongue.

Why the other options are wrong:

- A, branchial cyst: a lateral swelling at the anterior border of sternocleidomastoid, not midline.



- C, cystic hygroma: a lateral, transilluminant swelling of the posterior triangle.
- D, carotid body tumour: a lateral, pulsatile mass at the carotid bifurcation.

Final Answer: Thyroglossal cyst ⇒ B

Answer: (B) [Go Back to Q6](#)

Q7.

Solution

Concept – transilluminant infantile neck swelling: Brilliant transillumination points to a fluid-filled lymphatic lesion.

Step 1 – read the features: A soft, brilliantly **transilluminant** cystic mass in the **posterior triangle** present from birth is characteristic.

Step 2 – name it: This is a **cystic hygroma**, a lymphangioma of dilated lymphatic channels.

Why the other options are wrong:

- A, thyroglossal cyst: midline and moves on tongue protrusion.
- B, branchial cyst: presents later in young adults and does not transilluminate brilliantly.
- D, reactive node: firm and non-transilluminant, linked to infection.

Final Answer: Cystic hygroma ⇒ C

Answer: (C) [Go Back to Q7](#)

Q8.

Solution

Concept – the lethal triad of trauma: Three factors reinforce one another and drive the patient toward death.

Step 1 – identify X: With hypothermia and acidosis given, the third vertex marked X is **coagulopathy**.

Step 2 – see the vicious cycle: Cold and acidotic blood clots poorly, bleeding worsens, which deepens hypothermia and acidosis; damage control surgery breaks this loop.

Why the other options are wrong:



- A, hyperkalaemia: a metabolic derangement but not a vertex of the triad.
- B, hypoglycaemia: not part of the triad.
- C, hypertension: the exsanguinating patient is hypotensive, not hypertensive.

Final Answer: Coagulopathy $\Rightarrow$ **D**

Answer: (D) [Go Back to Q8](#)

Q9.

Solution

Concept – balanced massive transfusion: Replacing whole-blood components in physiological proportions limits dilutional coagulopathy.

Step 1 – recall the ratio: The recommended balanced strategy gives packed red cells, fresh frozen plasma and platelets in a **1 : 1 : 1** ratio.

Step 2 – rationale: This mirrors whole blood and reduces the coagulopathy of high red-cell-only resuscitation.

Why the other options are wrong:

- A, 4:1:1: too little plasma and platelets, promoting coagulopathy.
- C, 2:1:0: omits platelets entirely.
- D, 3:2:1: not the standard balanced ratio.

Final Answer: 1 : 1 : 1 $\Rightarrow$ **B**

Answer: (B) [Go Back to Q9](#)

Q10.

Solution

Concept – damage control surgery: Physiology, not anatomy, is restored first in the unstable patient.

Step 1 – state the goal: The first operation aims for **rapid control of haemorrhage and contamination** with an abbreviated laparotomy and a temporary abdominal closure.

Step 2 – sequence: The patient is then warmed and corrected in the ICU, with definitive repair deferred to a planned re-laparotomy.

Why the other options are wrong:



- A, full reconstruction at first sitting: prolongs surgery and worsens the lethal triad.
- C, immediate anastomosis regardless of physiology: unsafe in a cold, acidotic, coagulopathic patient.
- D, formal wall reconstruction: a later, elective step, not the emergency priority.

Final Answer: Abbreviated laparotomy for haemorrhage and contamination control ⇒ **B**

Answer: (B) [Go Back to Q10](#)

Q11.

Solution

Concept – posterior urethral injury: A pelvic fracture shears the membranous urethra.

Step 1 – read the triad: **Blood at the meatus**, retention of urine and a **high-riding prostate** together point to a posterior urethral rupture.

Step 2 – name the site: The tear is at the **membranous (posterior) urethra**, where the prostate is displaced upward by pelvic haematoma.

Why the other options are wrong:

- B, bladder dome: presents with intraperitoneal urine leak, not a high-riding prostate.
- C, bulbar urethra: injured by a straddle (perineal) mechanism, not a pelvic fracture.
- D, ureter: retroperitoneal, unrelated to meatal bleeding or prostate position.

Note: do not pass a urethral catheter blindly; confirm with retrograde urethrography first.

Final Answer: Membranous (posterior) urethra ⇒ **A**

Answer: (A) [Go Back to Q11](#)



Q12.

Solution

Concept – bladder rupture, intra- vs extraperitoneal: Site of the leak decides surgery versus catheter drainage.

Step 1 – classify the injury: Rupture of the **dome** spills urine **intraperitoneally**, causing chemical peritonitis.

Step 2 – choose treatment: Intraperitoneal bladder rupture needs **operative repair at laparotomy** with layered closure and catheter drainage.

Why the other options are wrong:

- A, catheter alone: appropriate for an *extraperitoneal* rupture, not an intraperitoneal one.
- B, observation: unsafe with free intraperitoneal urine.
- C, suprapubic aspiration: does not close the defect.

Final Answer: Laparotomy with operative repair ⇒ D

Answer: (D) [Go Back to Q12](#)

Q13.

Solution

Concept – diagnosing suspected lymphoma: Lymphoma diagnosis needs preserved nodal architecture.

Step 1 – pick the test: The best investigation is an **excisional lymph node biopsy**, removing the whole node intact.

Step 2 – rationale: Intact architecture lets the pathologist classify the lymphoma and perform immunohistochemistry, which cytology cannot do.

Why the other options are wrong:

- A, FNAC: samples cells only, losing the architecture needed to subtype lymphoma.
- B, incisional biopsy: reserved for large or fixed masses not fully excisable; excision is preferred for an isolated node.
- D, serum LDH: a prognostic marker, not a histological diagnosis.

Final Answer: Excisional lymph node biopsy ⇒ C

Answer: (C) [Go Back to Q13](#)



Q14.

Solution

Concept – consequences of splenectomy: Loss of the spleen impairs clearance of encapsulated bacteria.

Step 1 – name the risk: The most feared complication is **overwhelming post-splenectomy infection (OPSI)**, a fulminant sepsis.

Step 2 – the organisms: It is driven by encapsulated bacteria, chiefly *Streptococcus pneumoniae*, *Neisseria meningitidis* and *Haemophilus influenzae* type b.

Why the other options are wrong:

- A, portal vein thrombosis: an early complication, usually manageable.
- B, subphrenic abscess: an early local problem, not the lifelong danger.
- C, thrombocytosis: common and usually benign after splenectomy.

Final Answer: Overwhelming post-splenectomy infection (OPSI) ⇒ **D**

Answer: (D) [Go Back to Q14](#)

Q15.

Solution

Concept – timing of pre-splenectomy vaccination: Vaccines need time to raise protective antibody before the spleen is removed.

Step 1 – state the timing: For an elective splenectomy, vaccinate **at least 2 weeks before** the operation.

Step 2 – rationale: This interval lets the intact spleen mount a strong antibody response against pneumococcus, meningococcus and Hib.

Why the other options are wrong:

- B, day of surgery: too late for elective cases (used only in emergencies, then boosted about 2 weeks post-op).
- C, only if infection occurs: reactive vaccination gives no protection during OPSI.
- D, six months after: leaves the patient unprotected in the highest-risk early period.

Final Answer: At least 2 weeks before the operation ⇒ **A**

Answer: (A) [Go Back to Q15](#)



Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	A	3	C	4	A	5	B
6	B	7	C	8	D	9	B	10	B
11	A	12	D	13	C	14	D	15	A

