INI CET Surgery

Sample Paper – 1

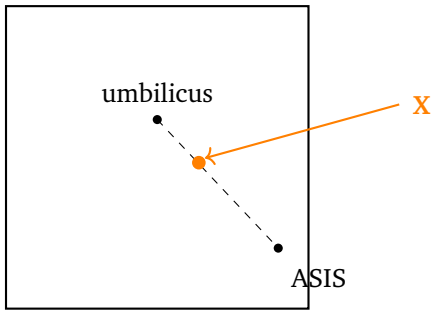
Duration: 14 Minutes **Maximum Marks: 15**

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.
- Attempt this practice paper in one timed sitting of about **14 minutes**, the pace the real computer-based test demands.

Gastrointestinal Surgery

Q1. In the diagram of the anterior abdominal wall, the point marked **X** – lying one-third of the way along the line from the anterior superior iliac spine (ASIS) to the umbilicus, where maximal tenderness occurs in acute appendicitis – is called:



(A) Murphy's point

(B) Rovsing's point

(C) McBurney's point

(D) Boas' point

Q2. In the Alvarado (MANTRELS) score for acute appendicitis, which pair of features is each awarded **2 points** (while the remaining features score 1 point)?

(A) Migration of pain and rebound tenderness

(B) Tenderness in the right iliac fossa and leukocytosis

(C) Anorexia and nausea or vomiting

(D) Fever and a left shift of neutrophils

Q3. The standard definitive treatment for uncomplicated acute appendicitis in a fit patient is:

(A) Interval imaging with observation alone

(B) Appendicectomy (laparoscopic or open)

(C) Long-term oral antibiotic suppression without any surgery

(D) Right hemicolectomy

Hepatobiliary and Pancreatic Surgery

Q4. Which clinical sign – arrest of inspiration when the examiner's fingers press under the right costal margin during a deep breath – is characteristic of acute cholecystitis?

(A) Courvoisier's sign

(B) Rovsing's sign

(C) Cullen's sign

(D) Murphy's sign

Q5. The definitive treatment of choice for acute calculous cholecystitis in a patient fit for surgery is:

(A) Elective open cholecystectomy deferred by three months

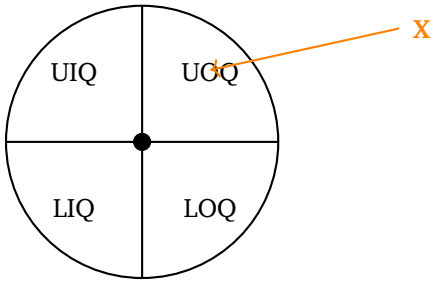
(B) ERCP with stone extraction and no cholecystectomy

(C) Early laparoscopic cholecystectomy

(D) Percutaneous cholecystostomy as the definitive cure

Breast and Endocrine Surgery

Q6. In the diagram of the breast divided into quadrants, the region marked **X** – the site where the majority of breast carcinomas arise – is the:



(A) Upper inner quadrant

(B) Lower outer quadrant

(C) Lower inner quadrant

(D) Upper outer quadrant

Q7. Breast-conserving surgery (wide local excision) for an early breast carcinoma must routinely be combined with which adjuvant treatment to give survival equivalent to mastectomy?

(A) Adjuvant chemotherapy in every case

(B) Endocrine (hormonal) therapy alone

(C) Whole-breast radiotherapy

(D) No adjuvant treatment is required

Trauma and Critical Care

Q8. In the ATLS primary survey (ABCDE), the very first priority – the "A" step, carried out with simultaneous cervical spine protection – is:

(A) Airway maintenance with cervical spine control

(B) Breathing and ventilation

(C) Circulation with haemorrhage control

(D) Disability (neurological status)

Q9. The definitive airway of choice in an apnoeic trauma patient is:

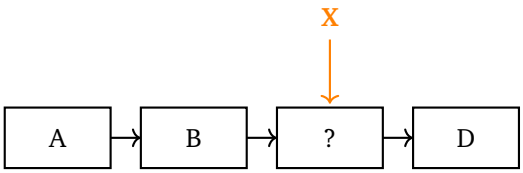
(A) Oropharyngeal (Guedel) airway

(B) A cuffed endotracheal tube in the trachea

(C) Nasopharyngeal airway

(D) Bag-valve-mask ventilation alone

Q10. The ATLS primary survey is shown as an ordered sequence. The step marked **X**, which immediately follows Airway (A) and Breathing (B), is:



(A) Circulation with haemorrhage control

(B) Definitive operative surgery

(C) The secondary survey

(D) Exposure and environment control

Urology and Vascular Surgery

Q11. Ureteric colic classically presents as severe colicky pain radiating from the loin to the groin, characteristically accompanied by:

(A) Painless gross haematuria with no restlessness

(B) Haematuria together with an inability to lie still (the patient writhes in pain)

(C) High fever with rigors as the rule in every case

(D) Continuous dull pain that is relieved by lying still

Q12. The current investigation of choice (gold standard) for detecting renal and ureteric stones is:

(A) Non-contrast CT of the kidneys, ureters and bladder (CT KUB)

(B) Plain abdominal X-ray (KUB film)

(C) Intravenous urography (IVU)

(D) Ultrasound of the abdomen used alone

Surgical Oncology and Miscellaneous

Q13. Among the phases of wound healing, which phase – lasting weeks to months and involving collagen remodelling with a steady rise in tensile strength – comes last?

(A) Haemostasis phase

(B) Inflammatory phase

(C) Proliferative phase

(D) Maturation (remodelling) phase

Q14. Under the CDC classification, a surgical site infection that occurs within 30 days of operation and involves only the skin and subcutaneous tissue of the incision is classified as:

(A) Superficial incisional SSI

(B) Deep incisional SSI

(C) Organ or space SSI

(D) Not a surgical site infection

Q15. Which suture material is absorbable and is therefore preferred for a deep buried layer such as a bowel anastomosis or subcutaneous closure?

(A) Silk

(B) Polypropylene (Prolene)

(C) Polyglactin (Vicryl)

(D) Nylon (Ethilon)

Detailed Solutions

Q1.

Solution

Concept – surface marking of the appendix: The base of the appendix has a fixed surface landmark.

Step 1 – locate the point: Draw a line from the anterior superior iliac spine (ASIS) to the umbilicus.

Step 2 – measure along it: The point one-third of the way from the ASIS is **McBurney's point**, where tenderness is maximal in acute appendicitis.

Why the other options are wrong:

- A, Murphy's point: relates to the gallbladder, not the appendix.
- B, Rovsing's point: there is a Rovsing's sign (RIF pain on pressing the left iliac fossa), but no such surface point.
- D, Boas' point: an area of hyperaesthesia below the right scapula in cholecystitis.

Final Answer: McBurney's point $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q1

Q2.

Solution

Concept – the Alvarado score: The MANTRELS score adds eight features to a total of 10.

Step 1 – recall the two 2-point items: Tenderness in the right iliac fossa scores 2, and **leukocytosis** scores 2.

Step 2 – the 1-point items: Migration of pain, anorexia, nausea/vomiting, rebound tenderness, raised temperature and a left shift each score 1.

Why the other options are wrong:

- A, migration and rebound: each score only 1 point.
- C, anorexia and nausea/vomiting: each score only 1 point.
- D, fever and left shift: each score only 1 point.

Final Answer: RIF tenderness and leukocytosis $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q2

Q3.

Solution

Concept – treatment of appendicitis: Uncomplicated appendicitis is a surgical disease.

Step 1 – name the definitive treatment: Appendicectomy, laparoscopic or open, removes the inflamed appendix.

Step 2 – rationale: It prevents progression to perforation and generalised peritonitis and is the standard of care in a fit patient.

Why the other options are wrong:

- A, observation alone: risks perforation; not definitive.
- C, antibiotics alone: an option in selected cases, but recurrence is common and it is not the standard definitive treatment.
- D, right hemicolectomy: excessive resection, reserved for an appendicular malignancy.

Final Answer: Appendicectomy $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q3

Q4.

Solution

Concept – eponymous signs of the gallbladder: Each sign has a specific manoeuvre.

Step 1 – describe the manoeuvre: Fingers are held under the right costal margin while the patient inspires.

Step 2 – name the sign: Arrest of inspiration from pain as the inflamed gallbladder meets the fingers is a positive **Murphy's sign**.

Why the other options are wrong:

- A, Courvoisier's sign: a palpable non-tender gallbladder with painless jaundice.
- B, Rovsing's sign: points to appendicitis.
- C, Cullen's sign: periumbilical bruising in retroperitoneal haemorrhage.

Final Answer: Murphy's sign $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q4

Q5.

Solution

Concept – management of acute cholecystitis: Early definitive surgery is favoured in fit patients.

Step 1 – name the treatment: Early laparoscopic cholecystectomy (within about 72 hours of onset) is the definitive treatment of choice.

Step 2 – rationale: Early surgery shortens hospital stay and avoids the dense adhesions of delayed operation.

Why the other options are wrong:

- A, deferred open surgery: an outdated "cool off then operate" approach.
- B, ERCP alone: clears the bile duct but leaves the diseased gallbladder.
- D, cholecystostomy: a temporising drain for unfit patients, not a cure.

Final Answer: Early laparoscopic cholecystectomy ⇒ C

Answer: (C) Go Back to Q5

Q6.

Solution

Concept – quadrants of the breast: Carcinoma frequency differs by quadrant.

Step 1 – identify X: The region marked X is the **upper outer quadrant**, the part of the breast that extends toward the axilla.

Step 2 – why it matters: It contains the most glandular tissue, so roughly half of all breast carcinomas arise here.

Why the other options are wrong:

- A, upper inner quadrant: fewer cancers.
- B, lower outer quadrant: fewer cancers.
- C, lower inner quadrant: the least common site.

Final Answer: Upper outer quadrant ⇒ D

Answer: (D) Go Back to Q6

Q7.

Solution

Concept – breast-conserving surgery: Conservation must control the whole breast.

Step 1 – name the adjuvant: Wide local excision is routinely followed by **whole-breast radiotherapy**.

Step 2 – rationale: Radiotherapy destroys residual microscopic disease so that survival equals that of mastectomy.

Why the other options are wrong:

- A, chemotherapy in every case: given only by risk profile, not universally.
- B, endocrine therapy alone: used for hormone-receptor-positive tumours, not a substitute for radiotherapy.
- D, no adjuvant: omitting radiotherapy raises local recurrence sharply.

Final Answer: Whole-breast radiotherapy $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q7

Q8.

Solution

Concept – the ATLS primary survey: Threats are addressed in the order A-B-C-D-E.

Step 1 – name the first step: "A" is **airway maintenance with cervical spine control**.

Step 2 – rationale: An obstructed airway kills fastest, so it is secured first while the neck is immobilised against injury.

Why the other options are wrong:

- B, breathing: the second step.
- C, circulation: the third step.
- D, disability: the fourth step.

Final Answer: Airway with cervical spine control $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q8

Q9.

Solution

Concept – the definitive airway: A definitive airway is a cuffed tube in the trachea.

Step 1 – name it: In an apnoeic patient the airway of choice is a **cuffed endotracheal tube**.

Step 2 – rationale: The inflated cuff seals the trachea, protects against aspiration and allows positive-pressure ventilation.

Why the other options are wrong:

- A, oropharyngeal airway: only holds the tongue forward; not definitive.
- C, nasopharyngeal airway: a temporising adjunct, not definitive.
- D, bag-valve-mask: a bridging measure, does not protect the airway.

Final Answer: Cuffed endotracheal tube $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q9

Q10.

Solution

Concept – sequence of the primary survey: The letters run A, B, C, D, E.

Step 1 – identify X: After Airway and Breathing, the next step (X) is **Circulation with haemorrhage control**.

Step 2 – what it involves: Control external bleeding, gain IV access and restore volume to treat shock.

Why the other options are wrong:

- B, definitive surgery: belongs to later definitive care, not the primary survey.
- C, secondary survey: the head-to-toe examination done only after ABCDE.
- D, exposure and environment: this is "E", which comes after "D".

Final Answer: Circulation with haemorrhage control $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q10

Q11.

Solution

Concept – clinical picture of ureteric colic: A stone in the ureter causes a distinctive pain.

Step 1 – describe the pain: It is severe, colicky loin-to-groin pain with **haematuria**, and the patient is typically restless, unable to lie still.

Step 2 – contrast with peritonitis: A patient with peritonitis lies still; the writhing restlessness is a clue to colic.

Why the other options are wrong:

- A, painless haematuria: suggests a urothelial tumour, not a stone.
- C, high fever with rigors as the rule: seen only when infection (obstructed infected system) supervenes, not routinely.
- D, pain relieved by lying still: the opposite of the restlessness of colic.

Final Answer: Haematuria with restlessness $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q11

Q12.

Solution

Concept – imaging of urinary stones: The gold standard is a non-contrast CT.

Step 1 – name the investigation: Non-contrast CT KUB is the investigation of choice for renal and ureteric stones.

Step 2 – rationale: It detects almost all stone types (including radiolucent uric acid stones), needs no contrast and shows the exact size and site.

Why the other options are wrong:

- B, plain X-ray KUB: misses radiolucent and small stones.
- C, IVU: largely replaced by CT and needs iodinated contrast.
- D, ultrasound alone: useful in pregnancy and for hydronephrosis but misses many ureteric stones.

Final Answer: Non-contrast CT KUB $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q12

Q13.

Solution

Concept – phases of wound healing: Healing runs haemostasis, inflammation, proliferation, maturation.

Step 1 – name the last phase: The final phase is **maturation (remodelling)**, lasting weeks to months.

Step 2 – what happens: Type III collagen is replaced by stronger type I collagen and the scar gains tensile strength (up to about 80% of normal).

Why the other options are wrong:

- A, haemostasis: the immediate first phase (clot formation).
- B, inflammatory: the early phase of debris clearance.
- C, proliferative: the middle phase of granulation tissue and epithelialisation.

Final Answer: Maturation (remodelling) phase $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q13

Q14.

Solution

Concept – CDC classification of SSI: Depth of tissue involved defines the class.

Step 1 – match the description: Infection within 30 days involving only skin and subcutaneous tissue is a **superficial incisional SSI**.

Step 2 – the deeper classes: Deep incisional SSI involves fascia and muscle; organ/space SSI involves any structure opened during surgery.

Why the other options are wrong:

- B, deep incisional SSI: reaches fascia and muscle, deeper than described.
- C, organ/space SSI: involves the operated cavity or organ.
- D, not an SSI: it clearly meets the CDC criteria.

Final Answer: Superficial incisional SSI $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q14

Q15.

Solution

Concept – suture selection: Buried layers need an absorbable suture.

Step 1 – name the material: Polyglactin (Vicryl) is a braided absorbable synthetic suture.

Step 2 – why it fits: It holds a deep layer (bowel anastomosis, subcutaneous tissue) while healing occurs, then is absorbed, leaving nothing to remove.

Why the other options are wrong:

- A, silk: a non-absorbable braided suture with a high tissue reaction.
- B, polypropylene: non-absorbable, used for skin and vascular work.
- D, nylon: non-absorbable monofilament, mainly for skin closure.

Final Answer: Polyglactin (Vicryl) $\Rightarrow$ C

Answer: (C) Go Back to Q15

Answer Key

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