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Barasat, Kolkata -700127

Term End Examination 2025-2026
Programme – B.Sc.(OTT)-2021/B.Sc.(OTT)-2022/B.Sc.(OTT)-2023
Course Name – Basics of Surgical Procedures
Course Code - BOTT501
(Semester V)

Full Marks : 60**Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. *Choose the correct alternative from the following :*

- (i) Name the genotype of a person with blood type AB in the ABO system.
- | | |
|-------|-------|
| a) AA | b) BB |
| c) AB | d) OO |
- (ii) Identify the primary function of red blood cells (erythrocytes).
- | | |
|-------------------|---------------------|
| a) Clotting | b) Oxygen transport |
| c) Immune defense | d) Digestion |
- (iii) Select which of the following is not a blood type in the ABO system?
- | | |
|------|-------|
| a) A | b) B |
| c) C | d) AB |
- (iv) Name the primary component of blood plasma?
- | | |
|--------------------|----------------------|
| a) Red blood cells | b) White blood cells |
| c) Platelets | d) Liquid portion |
- (v) Select the information that should be verified to ensure patient safety before blood transfusion.
- | | |
|------------------------------------|---------------------------------|
| a) Blood donor's horoscope | b) Blood donor's favorite color |
| c) Patient's ABO and Rh blood type | d) Patient's shoe size |
- (vi) Select the purpose of monitoring the patient for the first 15 minutes of a blood transfusion.
- | | |
|---------------------------------------|---|
| a) To check the patient's body weight | b) To observe for immediate adverse reactions |
| c) To measure the patient's height | d) To count the patient's red blood cells |
- (vii) Select the normal range for blood pH in the human body.
- | | |
|----------------|--------------|
| a) 6.0 - 6.5 | b) 7.0 - 7.5 |
| c) 7.35 - 7.45 | d) 8.0 - 8.5 |
- (viii) Select which type of current is utilized by monopolar diathermy to coagulate tissue.
- | | |
|------------------------|-----------------------------|
| a) Direct current (DC) | b) Alternating current (AC) |
| c) Bipolar current | d) Pulsed current |

- (ix) Identify where is the active electrode placed in the monopolar diathermy.
 - a) Near the patient's heart
 - b) In the patient's bloodstream
 - c) Close to the surgical site
 - d) In the surgeon's hand
- (x) Identify the primary function of diathermy machines in surgery.
 - a) Providing light for the surgeon
 - b) Sterilizing the surgical instruments
 - c) Cutting and coagulating tissue
 - d) Recording patient vital
- (xi) Choose why is it important to clean and disinfect operation lights regularly.
 - a) To improve the color rendering index
 - b) To extend the warranty
 - c) To reduce the risk of infection transmission
 - d) To increase energy efficiency
- (xii) Choose how often should you replace the bulbs or light source in operation lights.
 - a) Every 10 years
 - b) Every 5 years
 - c) when they stop working
 - d) Monthly
- (xiii) Predict core body temperature level at which hyperthermia is typically defined?
 - a) Above 40°C
 - b) Above 50°C
 - c) Below 55°C
 - d) Below 32°C
- (xiv) Choose what type of nephrectomy involves the removal of the entire kidney, including surrounding tissues?
 - a) Partial nephrectomy
 - b) Radical nephrectomy
 - c) Laparoscopic nephrectomy
 - d) Open nephrectomy
- (xv) Select the typical duration of a laparoscopic nephrectomy surgery?
 - a) 1-2 hours
 - b) 6-8 hours
 - c) 12-14 hours
 - d) 24-48 hours

Group-B

(Short Answer Type Questions)

3 x 5=15

- 2. Define blood transfusion. (3)
- 3. State the indications of Coombs test. (3)
- 4. Define electrolytes and their functions. (3)
- 5. Describe complications of IV fluids. (3)
- 6. Explain Venesection and its indications. (3)

OR

- Explain Tracheostomy and its complications. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- 7. Describe blood collection and blood preservation. (5)
- 8. Explain indications of IV Fluids (5)
- 9. Explain Surgical Induced Hypothermia and Indications. (5)
- 10. Explain Hyperthermia and its complications. (5)
- 11. Explain Hypothermia and it's Causes and Complications during surgery. (5)
- 12. Explain Incisions and steps of procedure for Breast Surgery (5)

OR

- Explain why Surgical Positions are necessary for the surgery. (5)

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