

B. Sc. MEDICAL TECHNOLOGY (RADIOGRAPHY & IMAGING) (BRIT)
SEMESTER -VI EXAMINATION, SEPTEMBER- 2026

REGIONAL RADIOGRAPHY- II

[Time allotted: Three Hours]

[Max Marks: 100]

Note: Read all the instructions carefully

Answer all questions in serial order. Draw suitable diagrams wherever necessary

Q. 1. Objective type questions: (Attempt All)

(10 x 02 = 20)

(Very short/ short answer/ MCQ/ One liners/ Fill in the blanks/ True/False)

- a. Which immobilization device is most effective and commonly used for a chest X-ray of an infant aged 6 to 18 months?
 - i. Pigg-O-Stat
 - ii. Sandbags and compression bands
 - iii. Adhesive tape alone
 - iv. Manual restraint by the radiographer
- b. During a primary trauma survey, what is the fundamental rule of patient positioning for conventional spinal projections?
 - i. Roll the patient into a prone position to visualize the spinous processes
 - ii. Move the X-ray tube and the image receptor around the patient instead of moving the patient
 - iii. Remove all immobilization collars immediately to avoid artifacts
 - iv. Elevate the patient's head by 45 degrees for better comfort
- c. Following are the projections to see PNS except
 - i. Caldwell
 - ii. Trendelenburg
 - iii. Waters
 - iv. Submentovertex
- d. In pelvic trauma, the most important initial radiograph is:
 - i. Inlet view
 - ii. Outlet view
 - iii. AP pelvis
 - iv. Judet view
- e. The magnification in macro-radiography is achieved mainly by:
 - i. Using larger image receptors
 - ii. Increasing object-to-image distance (OID)
 - iii. Decreasing source-to-image distance (SID)
 - iv. Both ii and iii
- f. According to standard Advanced Trauma Life Support (ATLS) guidelines, the initial plain film "trauma series" consists of which projections?
 - i. AP Chest, AP Pelvis, and Lateral Cervical Spine
 - ii. PA Chest, Oblique Pelvis, and AP Lumbar Spine
 - iii. Lateral Skull, AP Abdomen, and AP Thoracic Spine
 - iv. Swimmer's lateral view, AP Skull, and Bilateral Femurs
- g. The organ most sensitive to radiation in children is:
 - i. Liver
 - ii. Gonads
 - iii. Thyroid
 - iv. Kidneys
- h. Which of the following materials is typically considered radiolucent and is highly likely to be missed on a routine plain film radiograph?
 - i. Lead pellets
 - ii. Household glass fragments
 - iii. Small splinters of organic wood
 - iv. Aluminum soda tabs
- i. Radiographer in a contaminated state should try to handle cassette:
 - i. Frequently
 - ii. Should not touch
 - iii. Minimally
 - iv. At corner
- j. Portable radiography in trauma should be performed:
 - i. At the bedside, minimizing movement
 - ii. Only when patient can be shifted
 - iii. With patient in standing position
 - iv. After primary treatment is completed

Q. 2. Short notes/ Short answer type questions (Attempt any Five)

(05 x 04 = 20)

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|----------------------|--------|
| a. Renal disorder | PO2CO2 |
| b. Consent form | PO4CO3 |
| c. NICU | PO4CO3 |
| d. Prescription form | PO1CO3 |
| e. SID | PO2CO3 |
| f. Lead Apron | PO2CO3 |
| g. PPE | PO2CO3 |

Q. 3. Structured questions (Attempt any Three)

(03 x 10 = 30)

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| a. What are exposure factors and write their use in Radiological examination. | PO4CO3 |
| b. What are the responsibilities of Radiographer to prepare a patient for CT scan? | PO4CO1 |
| c. What are the precautions taken during handling vulnerable patients in radiology department? | PO4CO2 |
| d. What are the precautions taken while handling & storage of IR? | PO2CO3 |

Q. 4. Long Answer/ Essay type questions (Attempt any Two)

(02 x 15 = 30)

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| a. What is skeletal survey and write about metabolic bone disease & hormonal disorders. | PO2CO3 |
| b. What is macro-radiography? Write their principle, advantage & application. | PO4CO1 |
| c. How would you identify foreign body localization with the help of radiological investigations? | PO4CO2 |