



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – B.Sc.(MRIT)-2022/B.Sc.(MRIT)-2023

Course Name – Interventional Radiology

Course Code - BMRITC602

(Semester VI)

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) Angiography is defined as
 - a) Study of vein
 - b) Study of artery
 - c) Study of blood vessels
 - d) Study of lymph
- (ii) Identify, the concept behind interventional radiology is to patients using the least invasive techniques currently available in order to minimize risk to the patient and improve health outcome.
 - a) Diagnosis
 - b) Treatment/Management
 - c) Both a & b
 - d) None of these
- (iii) Identify the correct option intended to use of Lignocaine/Xylocaine
 - a) Antiarrhythmic
 - b) Anesthetics
 - c) Both Antiarrhythmic and Anesthetics
 - d) None of these
- (iv) Choose the correct option about Guide wire
 - a) Safe introduction of catheter into muscular region
 - b) Safe introduction of catheter into oral cavity
 - c) Safe introduction of catheter into vessel
 - d) All of these
- (v) Define the purpose of performing venography.
 - a) To visualize veins and detect abnormalities such as clots or stenosis
 - b) To evaluate arterial health
 - c) To assess kidney function
 - d) To monitor brain activity
- (vi) Identify the procedure commonly used to assess blood vessels in the legs.
 - a) Peripheral angiography
 - b) Cerebral angiography
 - c) Thoracic angiography
 - d) Renal angiography
- (vii) Identify what is used to sterilize reusable catheters.
 - a) Autoclaving
 - b) Soap and water
 - c) Ethanol
 - d) Hydrogen peroxide
- (viii) Identify the primary purpose of angioplasty.

- a) To widen narrowed blood vessels
b) To remove blood clots from vessels
c) To assess heart function
d) To monitor blood pressure
- (ix) Identify the procedure that uses a contrast medium injected into the venous system to visualize veins.
a) Venography
b) Myelography
c) Angiography
d) Arthrography
- (x) Explain the goal of renal drainage procedures.
a) To remove fluid or urine from the kidneys
b) To perform a biopsy
c) To administer antibiotics
d) To visualize kidney stones
- (xi) Select the most appropriate needle size commonly used for FNAC procedures
a) 10G
b) 14G
c) 21-25G
d) 30G
- (xii) Select the most commonly used vascular access site in angiography:
a) Jugular vein
b) Brachial artery
c) Femoral artery
d) Radial artery
- (xiii) Select the most suitable imaging modality for guiding vascular stent placement.
a) Fluoroscopy
b) CT
c) MRI
d) Ultrasound
- (xiv) Identify the key characteristic of minimally invasive procedures in interventional radiology.
a) No need for anesthesia
b) Smaller incisions and faster recovery
c) Open surgical approach
d) No imaging guidance required
- (xv) Identify the primary purpose of embolization.
a) Blocking abnormal blood flow
b) Opening blocked arteries
c) Draining fluids
d) Removing tumors surgically

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Group-B

(Short Answer Type Questions)

3 x 5=15

2. Define the history of interventional radiography (3)
3. Define Catheter and write some properties of the catheter. (3)
4. Define shoulder arthrography? (3)
5. Define elbow arthrography? (3)
6. Explain the procedure of angiocardiography. (3)

OR

Explain the role of CAG (Coronary Angiography) in cardiac catheterization? (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Write short notes on Angiography, Arteriography and Venography. (5)
8. Explain Seldinger technique. (5)
9. Differentiate between single-plane and bi-plane angiography? (5)
10. Explain the role of a radiographer during interventional radiology procedures. (5)
11. Write the importance of patient care and communication by a radiographer in interventional radiology. (5)
12. Write Common indication of intervention radiological procedures. (5)

OR

Write common procedures performed in the interventional radiology under image guidance. (5)
