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## **BRAINWARE UNIVERSITY**

**Term End Examination 2024-2025** Programme - B.Sc.(MRIT)-2022 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)

- Choose the correct alternative from the following:
- (i) Angiography is defined as
  - a) Study of vein
  - c) Study of blood vessels

b) Study of artery

b) Polyethylene

b) Based on Sizes

d) All of these

d) Aterio venous formation

d) All of these

b) Stenosis

- d) Study of lymph
- (ii) Identify the material used in Angiographic catheter construction
  - a) Polyurethane

  - c) Teflon, or nylon
- (iii) Narrowing of a blood vessels is termed as
  - a) Thrombosis
  - c) Coagulation
- (iv) Identify the catheter classification parameters
  - a) Based on Side holes
  - c) Based on Shapes
- (v) Define balloon angioplasty.
  - a) A technique to widen narrowed blood vessels using a balloon catheter
  - c) A diagnostic imaging procedure for blood vessels
- (vi) Define the term "angioplasty."
  - a) A procedure to widen narrowed blood vessels using a balloon catheter
- c) An imaging technique to view blood vessels
- d) A surgical procedure to treat blockages

b) A procedure to remove blood clots using a

- b) A procedure to remove plaque from blood vessels
- (vii) Define the main purpose of interventional radiography.
  - a) To diagnose using X-rays
  - c) To create 3D models of organs
- (viii) What does DSA stand for?

d) A surgical method for heart bypass

b) To treat using minimally invasive

procedures d) To monitor heart rate

(iv	<ul><li>a) Digital Single Angiography</li><li>c) Digital Subtraction Angiography</li><li>Explain how asepsis is maintained during inter</li></ul>	b) Direct Subtraction Angiography     d) Dynamic Subtraction Angiography     ventional procedures.	ny
(1)		In the state of the second state of	
	a) By wearing sterile gloves and using sterile equipment	b) By using antibiotics	
	c) By wearing a mask only	d) By using alcohol-based hand san	itizers
(x	) Define the purpose of vertebral angiography.		
	a) To visualize blood flow in the brain	b) To visualize the spinal cord and v	vertebral
	c) To treat spinal fractures	d) To diagnose heart conditions	
(x	i) Identify the significant risk of femoral artery ca	atheterization.	
	a) Hemorrhage or bleeding	b) Infection of the urinary tract	
	c) Dizziness	d) Respiratory distress	
(xi	i) Select the most appropriate diagnostic tool fo	r evaluating a thyroid nodule.	
	a) MRI	b) CT scan	
	c) FNAC	d) USG	
(xi	<ol> <li>Select the most appropriate post-procedure continuous interventional radiology.</li> </ol>	are step after an angioplasty in	
	a) Advising the patient to resume intense	b) Administering sedatives without	physician
	physical activity	consent	
	c) Immediate discharge without observation	d) Monitoring vital signs and punct	ure site for
	Immediate discharge without observation	bleeding	
(xi	v) Identify the type of contrast agent commonly	used in interventional radiology.	
	a) Iodinated contrast	b) Barium sulfate	
	c) Gadolinium-based contrast	d) Carbon dioxide	
(X	v) Identify the imaging modality most commonly	used for guiding biopsies.	
	a) CT	b) MRI	
	c) Fluoroscopy	d) PET	
		oup-B	
	(Short Answer	Type Questions)	3 x 5=15
			pint ig
	Define the history of interventional radiography		(3)
	Discuss the different types of catheters used in i		(3)
	Write Common indication of Angioplasty proced	ures.	(3)
	Describe knee arthrography.		(3)
6.	Explain the purpose of 4-vessel angiography.	OR See See See See See See See See See Se	(3)
		OK .	(3)
	Explain cerebral venography.		(5)
	The same of the sa	Carlot Water in order or the	
		<b>Dup-C</b> Type Questions)	5 x 6=30
	(Long Answer	Type Questions)	3 X 0-30
7.	Explain classification of catheter.		(5)
8.	Write short notes on Angiography, Arteriograph	ny and Venography	(5)
9.	Explain Seldinger technique.	book i mental in house and and	(5)
	Explain Aspiration and Drainage.		(5)
	Explain the difference between selective and n	on-selective angiography.	(5)
	. Differentiate between peripheral and central ve		(5)
-		OR	
	Differentiate between single-plane and bi-plan	e angiography?	(5)
		Total Care No. of Page 10 DE 000	

a) Digital Single Angiography     c) Digital Subtraction Angiography  (iv) Symbols between its maintained due	b) Direct Subtraction Angiography d) Dynamic Subtraction Angiograp	hy
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	Crown B	
/Short	Group-B Answer Type Questions)	3 x 5=15
(31101)	Allswer Type Questions	3 × 3-13
		(2)
2. Define the history of interventional radi		(3)
3. Discuss the different types of catheters used in interventional radiography.		(3)
4. Write Common indication of Angioplast	y procedures.	(3)
5. Describe knee arthrography.	The contraction belongs the write pull	(3)
6. Explain the purpose of 4-vessel angiogra		(3)
Evaluin corobrol von ography	OR	(3)
Explain cerebral venography.		(3)
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(Long	Answer Type Questions)	5 x 6=30
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processive and community and stand	OR	(F)
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