

BSC MET - VI

BLDE (DEEMED TO BE UNIVERSITY)

Jan 2023

B.SC MEDICAL IMAGING TECHNOLOGY EXAMINATION

[Time : 1 ½ Hours]

[Max.Marks : 50]

VI SEMESTER

PAPER – I (RADIOGRAPHY, CR/DR/PACS, ULTRASOUND & RADIATION PROTECTION)

QP CODE: 8611

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Brief Answer Questions:

3 x 6 = 18

Describe the X ray projections under following headings:

- a) FFD b) Centring point c) size of cassette
d) Bucky/non-Bucky d) Position of patient e) Extent of image
1. Patella – skyline view
 2. Hip Joint - Frog view
 3. Pelvis – Outlet view
 4. Subtalar Joint – Oblique lateral view
 5. Abdomen : Cross table
 6. Sacroiliac joint – Oblique view

Short Answers Questions: :

2 x 6 = 12

7. What are the frequencies of curvilinear & linear probes used in USG?
8. Draw a neat labeled diagram of CR cassette.
9. What are the components of ultrasound jelly?
10. Describe the plane of least diameter in pelvis.
11. Name commonly used phosphor in CR system.
12. What is piezoelectric effect? Give one example of piezoelectric crystal.

Long answer questions:

4 x 3 = 12

13. Write about the compression technique used in mammography.
14. What are the indications of neurosonogram. What are the acoustic windows used in neurosonogram examination?
15. What is Doppler effect? Mention the uses of colour Doppler.

Say True or False:

1 x 4 = 4

16. For medical imaging, frequency of 2 - 20 MHz sound waves are used (T/F).
17. Only two views are available for breast examination in mammography (T/F).
18. Anomaly scan is done at 25-28th weeks of pregnancy (T/F).
19. Centring point for sacro-iliac joint prone view is midline at the level of the posterior superior iliac spines (T/F)

Fill in the blanks

1 x 4 = 4

20. Full form of PCPNDT _____
21. The flow towards the probe in colour Doppler appears _____
22. Estimation of gestational age is done in 1st trimester based on _____
23. Full form of PACS _____

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VI SEMESTER

PAPER – II (CT & MRI ADVANCES & CROSS SECTIONAL ANATOMY OF ABDOMEN & THORAX)

QP CODE: 8612

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Brief Answer Questions:

6 x 3 = 18

1. Enumerate different generations of CT. What type of movement is seen in each generation?
2. What preparation is needed for patient for MRCP?
3. What is dynamic MR mammography? Mention the indications for MR mammography.
4. What are the indications of CT angiogram?
5. What are the advantages of phase contrast MR angiogram?
6. What is MDCT? Write briefly about detectors in MDCT.

Short Answers Questions:

6 x 2 = 12

7. What is dual source CT? At what kVp the images are acquired?
8. Enumerate four indications of MRCP.
9. Write four indications of MR enteroclysis.
10. What are the advantages of MR urography over CT urography.
11. What are the disadvantages of non-contrast MRV over contrast enhanced MRV?
12. What are the images commonly acquired in MRI of whole body?

Long Answer Questions:

3 x 4 = 12

13. Write briefly the procedure of CT angiogram of brain.
14. Mention the types of MRA Techniques. Mention four indications.
15. Write briefly the technical protocols in acquisition of HRCT lung.

Say True or False:

4 x 1 = 4

16. Low dose CT is commonly used in diagnosis of lung malignancy (T/F)
17. Water is used as negative contrast in MR enteroclysis (T/F)
18. The iodine-containing substances attenuate more at 80 kVp than at 140kVp (T/F)
19. Whole body MRI is of importance in diagnosis and management of metastasis form malignancies (T/F)

Fill in the blanks

4 x 1 = 4

20. _____ is an example of gadolinium containing positive contrast used in MR enterography.
21. Full form of MRCP is _____.
22. Inter slice interval used in HRCT is _____.
23. _____ contrast is used in CT angiogram.