

BSC-11  
M21

JAN-2024

# BLDE (DEEMED TO BE UNIVERSITY)

## B.Sc. Medical Imaging Technology

[Time: 3 Hours]

[Max. Marks: 80]

### III SEMESTER

### PAPER - I (Physics & Medical Imaging - I)

QP CODE: (8325)

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### Long Questions

10X1 = 10 Marks

1. How the X-Rays are produced. Describe in details.

#### Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Write down the properties of X-Rays.
3. Describe single coated x-ray film with diagram.
4. What is grid and discuss types of grid?
5. Factors attenuation Factors off
6. Name the four types of Interaction of X-rays with matter.
7. X-ray tubes.
8. What is cassette? Its uses. What are the types of cassettes used in your departments?
9. Effects of scattered Radiation
10. Name the different types of films used in X-ray Department.

#### Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. What is moving grid?
12. Functioning of Focusing cup.
13. Anode Heel Effect
14. What is Line focused Principle
15. What is Anode Angle or Beveled angle
16. What is grid Lattice, What is grid ratio, what is grid factor
17. What is radiographic Contrast?
18. How the Scattered radiation can be reduced.
19. What is energy of Radiation?
20. What is Macro-radiography?
21. What is un-sharpness and blurring

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**III SEMESTER**

**PAPER - II (Radio Graphic Techniques I)**

**QP CODE: 8326**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions**

**10X1 = 10 Marks**

1. Explain in detail with reference to aim, indication and choice of machine and exposure factors involved in the radiography of thoracic spine.

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Dental radiography.
3. Carpel tunnels view.
4. Bed side radiography.
5. Views for shoulder joint.
6. Towne's view.
7. Stryker's view.
8. Soft tissue radiography.
9. Radiographic imaging to demonstrate Bennett's fracture.
10. Principle of stereo radiography.

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Write the projection to demonstrate Zygomatic bone.
12. Oblique view of Hand.
13. Elbow axial view.
14. Lateral view for coccyx.
15. Lordotic view.
16. Sub – mento vertical view.
17. AP view of sacrum.
18. Ten day rule.
19. Define Lateral decubitus projection.
20. What is Macro-radiography
21. What is High and Low KV technique

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**III SEMESTER**

**PAPER - III (Darkroom Techniques)**

**QP CODE: 8327**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions**

**10X1 = 10 Marks**

1. What are the equipment's of darkroom? Write the differences between automatic processor and manual processor.

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. What is Dark Room Layout?
3. Mention any three Emulsion Materials?
4. What is Intensification Factor?
5. Enumerate any four uses of IV contrast media?
6. Describe Cassette Design?
7. Enumerate components of Image Quality?
8. What is the function of developer solution?
9. What are the types of door system?
10. Why is ventilation of the dark room important?

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. What is darkroom?
12. What are the two technique used for film processing?
13. What are the types of filters used in the darkroom?
14. What are the types of safelight in the darkroom?
15. Describe cassette design
16. What are the ingredients of fixer solution?
17. What are the types of safe light in the dark room?
18. Mention the steps of automatic processing.
19. Explain safelight
20. What is the function of developer solution?
21. Latent image.