SC—2023

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

RADIOGRAPHIC TECHNIQUES—II

Time : Three Hours

Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 Write in detail about the preparation, procedure and indications for percutaneous transhepatic Cholengiography.

2 Management of patient in drug induced emergency in the Radiology department. Write in detail.

3 Intravenous pyelography-preparation, procedure and write about indications and contraindications for using pressure binder.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 Mention the names of all the needles you know which are used in interventions radiological procedures.

5 Write about translumbar Aortography.

6 Micturating Cystouretrogram—procedure and indications.

7 Bronchography—procedure and indications.

8 Bone Age estimation—Radiograms required for patient between the age of 15 to 21 years.

9 Percutaneous transhepatic biliarydrainage. Write about procedure and indications.

10 Write briefly about Mammography techniques.

11 Small bowel enema.

12 Procedure and indication for hypotonic duodenography.

13 Ten day rule in radiation protection.

14 Emergency drugs and equipment to be kept in the Radiology Department.

15 Oral cholecystogram—procedure and indications.

(8 × 5 = 40 marks)

III. Short Answers :

16 Foreign body localisation.

17 Sialography—procedure and indications.

18 High KV technique—indications.

19 Echocardiography.



(4 × 5 = 20 marks)

SC—2022

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

IMAGING TECHNIQUE, RADIOGRAPHIC TECHNIQUE—II (INCLUDING US/CT/MRO/ NUCLEAR MEDICINE)

Time : Three Hours

Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 Write about the principles of Computer Tomography. Mention about contrast material used in CT and how they are administered.

2 Write about the different types of Transducers used in Ultrasound. Draw and label a diagram of the transducer.

3 Mention all the imaging modalities you know of for hepato-biliary imaging. Draw and label the anatomy of the biliary system.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 What are Honusfield units. Write briefly.

5 Write about pulsed doppler.

6 Precautions while handling radiopharmaceuticals.

7 Rectilinear scanner.

8 Define and explain what are pixel and voxel.

9 Interventional CT guided procedures.

10 Gamma camera.

11 Multihole Coclimator.

12 Write briefly about Positenon emission tomography.

13 Safety consideration in radiation doses.

14 Types of artefact in Computer Tomography.

15 Principles of tracer techniques.

(8 × 5 = 40 marks)

III. Short Answers :

16 Image reconstruction in CT.

17 Precautions of handling radiopharmaceuticals.

18 M.R. contrast agents.

19 Write briefly about Hounsfield units.

(4 × 5 = 20 marks)

SC—2023

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

RADIOGRAPHIC TECHNIQUES—II

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13 Ten day rule in radiation protection.

14 Emergency drugs and equipment to be kept in the Radiology Department.

15 Oral cholecystogram—procedure and indications.

(8 × 5 = 40 marks)

III. Short Answers :

16 Foreign body localisation.

17 Sialography—procedure and indications.

18 High KV technique—indications.

19 Echocardiography.



(4 × 5 = 20 marks)

SC—2024

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

PHYSICS OF RADIOTHERAPY AND EQUIPMENT

Time : Three Hours Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 What are the various Radioactive isotopes used in Teletherapy. Describe with the help of a diagram the cobalt Teletherapy unit construction and function.

2 What is scalter radiation ? What are the various types ? How do you protect the patient in day-to-day practice ?

3 What are the various Beam-Direction devices. Describe them with the help of diagrams.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 Personal monitoring devices.
5 Manual after loading techniques.
6 Pair production.
7 Control console.
8 Isodose curve.
9 Atomic number.
10 Nuclear reactor.
11 Production of X-rays.
12 Compensators.
13 Movable collimation.



(8 × 5 = 40 marks)

III. Short Answers :

14 Radioactivity.
15 Iridium 192.
16 Specific Gamma-ray constant.
17 Units of Radiation measurement.
18 H.V.L.
19 Wedge angle.
20 Unseated Radioactive sources.
21 M.P.D.
22 Shielding materials.
23 Rotation therapy.

(10 × 2 = 20 marks)

SC—2025

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

PRINCIPLES AND PRACTICE OF RADIOTHERAPY AND ONCOLOGY TECHNIQUES

Time : Three Hours

Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 What are various pre-malignant conditions of skin cancers ? Describe the clinical features, treatment options and techniques of irradiation of skin cancers.

2 Define Radio sensitivity : Classify tumors according to radiosensitivity. Define the role of palliative and curative treatment in them.

3 What is Teletherapy ? Describe the various techniques of Teletherapy used for treatment of Ca. Tonsil.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 Cancer screening.
5 Staging of cancer.
6 Brachy therapy.
7 Electron Beam therapy.
8 Proctitis.
9 Simulation.
10 Craniospinal irradiation.
11 Xerostomia.
12 LET.
13 HDR.



(8 × 5 = 40 marks)

III. Short Answers :

14 Mitosis.
15 Hormone therapy.
16 Inverted Y field Irradiation.
17 Intra Luminal Irradiation.
18 Emergencies in radiotherapy.
19 Care of tracheal stoma.
20 Conventional fractionation.
21 Subcutaneous fibrosis.
22 Effects of radiation of spinal cord.
23 Pneumonitis.

(10 × 2 = 20 marks)

SC—2025

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

PRINCIPLES AND PRACTICE OF RADIOTHERAPY AND ONCOLOGY TECHNIQUES

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(8 × 5 = 40 marks)

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17 Intra Luminal Irradiation.
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SC—2024

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

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Time : Three Hours

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III. Short Answers :

14 Radioactivity.

15 Iridium 192.

16 Specific Gamma-ray constant.

17 Units of Radiation measurement.

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19 Wedge angle.

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22 Shielding materials.

23 Rotation therapy.

(10 × 2 = 20 marks)

SC—2023

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

RADIOGRAPHIC TECHNIQUES—II

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13 Ten day rule in radiation protection.

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15 Oral cholecystogram—procedure and indications.

(8 × 5 = 40 marks)

III. Short Answers :

16 Foreign body localisation.

17 Sialography—procedure and indications.

18 High KV technique—indications.

19 Echocardiography.

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(4 × 5 = 20 marks)

SC—2024

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

PHYSICS OF RADIOTHERAPY AND EQUIPMENT

Time : Three Hours Maximum : 80 Marks

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SC—2022

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

IMAGING TECHNIQUE, RADIOGRAPHIC TECHNIQUE—II (INCLUDING US/CT/MRO/ NUCLEAR MEDICINE)

Time : Three Hours | Maximum : 80 Marks

Your answers shall be specific to the questions asked.
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I. Long Essays : (Answer any *two*)

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II. Short Essays : (Answer any *eight*)

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5 Write about pulsed doppler.

6 Precautions while handling radiopharmaceuticals.

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9 Interventional CT guided procedures.

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15 Principles of tracer techniques.

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III. Short Answers :

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17 Precautions of handling radiopharmaceuticals.

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SC—2022

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

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14 Types of artefact in Computer Tomography.

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(8 × 5 = 40 marks)

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(4 × 5 = 20 marks)

SC—2025

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 2002

PRINCIPLES AND PRACTICE OF RADIOTHERAPY AND ONCOLOGY TECHNIQUES

Time : Three Hours

Maximum : 80 Marks

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I. Long Essays : (Answer any *two*)

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FR. MULLER CENTRAL LIBRARY

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