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SC—0658

THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 1999

IMAGING TECHNIQUE including US/CT/MRI/NUCLEAR

Time : Three Hours | Maximum : 80 Marks

Instructions to Candidates :

(1) *Your answers shall be specific to the questions asked.*
(2) *Draw neat and labelled diagrams wherever necessary.*
(3) *Answer the questions completely in one place only.*

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

1 Describe in detail basic technique and principles of Computed Tomography.
2 Describe the basic principles of Doppler.
3 What are Isotopes ? How are radioisotopes prepared ?

(2 × 10 = 20 marks)

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

4 Transducer.
5 Slip ring technique.
6 T_1 weighted images.
7 Rectilinear scanner.
8 Fourier principle.
9 Photomultiplier tubes.
10 Isotope transport.
11 PET.
12 Power Doppler.
13 Ultrasound artefacts.

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(8 × 5 = 40 marks)

III. Short Answers :

14 Technitium 99 DTPA.
15 B-mode.
16 Voxel.
17 Acoustic coupling agent.
18 High frequency transducers.
19 Safety consideration radiation dose in nuclear medicine.
20 Window width.
21 Patient preparation in Ultrasonography.
22 Contrast scan.
23 Blocking block.

(10 × 2 = 20 marks)

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THIRD YEAR B.Sc. (RADIOGRAPHY) DEGREE EXAMINATION, 1999

RADIOGRAPHY TECHNIQUE—II

Time : Three Hours

Maximum : 80 Marks

Instructions to Candidates :

(1) *Your answers shall be specific to the questions asked.*
(2) *Draw neat and labelled diagrams wherever necessary.*
(3) *Answer the questions completely in one place only.*

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

1 Describe various myelographic technique employed for the evaluation of spinal disorder in Neuro-Radiological department.

2 Describe briefly about portable radiographic equipment. Write in detail role of Radiographer in various emergency X-rays including ICCV and ICV/Post-operative radiography.

3 Write in detail about intravascular contrast medium, its adverse reactions and management. Write briefly about DSA procedure. (2 × 10 = 20 marks)

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

4 Write briefly about Retrograde Pyleo Ureterography (RGP).
5 Write briefly about Micturating Cystouretherography.
6 Brief outline of Hysterosalphingography.
7 Small bowel enema. Technique, contrast, materials and methods.
8 Single and double contrast barium meal upper G.I. study.
9 Post-operative stomach-gastraografin studies.
10 Brief outline percutaneous transhepatic cholangiography and biliary drainage.
11 Per operative Cholangiography.
12 Brief outline of ERCP.
13 Slendinger technique—Renal arteriography. Brief outline. (8 × 5 = 40 marks)

III. Short Answers :

14 Superior venocavography.
15 Percutaneous splenoportography.
16 Lumbar Myelography.
17 Air encephalography and Ventriculography.
18 Laryngography.
19 Contrast/Barium study of tracheo-oesophageal fistula.
20 Radiation protection ten day rule.
21 Emergency drugs in diagnostic radiology and imaging department.
22 Adverse reaction to contrast media and patient management.
23 Aseptic measures in diagnostic radiology department during routine and interventional procedures. (10 × 2 = 20 marks)