

B.Sc. Allied Health Sciences Second Year Semester-IV
July/August 2019 Examination

B.Sc. Imaging Technology

Time : 3 Hrs.

[Max. Marks : 100]

Paper-I

Basic Radiographic and Fluoroscopy

Q.P Code : J4380

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

- 1 Discuss about position and techniques in chest x-ray imaging in the following scenarios: (3 + 3 + 4)
 - a. Exposure factors when taking chest x-ray in 5-year old boy and 25-year old woman.
 - b. Suspected lesion in left lung apex, not visualized due to overlying clavicle.
- 2 Explain in detail the aims, indications, choice of machine and exposure factors involved in the radiography of knee joint (1 + 2 + 3 + 4).

SHORT ESSAY (Answer any Ten)

10 X 5 = 50 Marks

- 3 Radiographic views in cases of suspected fracture of lower end of radius and ulna.
- 4 Basic views for ankle joint.
- 5 Radiographic views in case of suspected fracture of cervical spine.
- 6 Basic views of mandible.
- 7 PNS Water's view.
- 8 Plain radiographic demonstration of pars interarticularis in lower Lumbar spine.
- 9 Describe in detail AP, PA and lateral chest radiographic imaging (2 + 2 + 1).
- 10 Discuss various views and techniques for radiographic imaging of the pelvis with diagrams where ever necessary?
- 11 Describe construction of a X-ray cassette.
- 12 Construction of intensifying screen.
- 13 Grid and its advantages.
- 14 Basic views and techniques for imaging foot.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 15 In a patient with suspected perforation, how will you perform x-ray to demonstrate pneumoperitoneum?
- 16 Elbow axial view.
- 17 Radiographic views for left clavicle.
- 18 Auto Transformer.
- 19 Filter.
- 20 Demonstrate a view to visualize patella.
- 21 Shoulder joint axial view.
- 22 Xray KUB – techniques and positioning.
- 23 Radiographic techniques for suspected pneumothorax.
- 24 Techniques for imaging sternum.
- 25 Radiographic techniques for imaging rib fractures.
- 26 Radiographic techniques for imaging soft tissue of the neck.

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Second Year Semester-IV
July / August 2019 Examination

B.Sc. Imaging Technology

Time : 3 Hrs.

[Max. Marks : 100]

Paper-II
Darkroom Processing
Q.P Code : J4390

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

- 1 Discuss in details about contents of developer and fixer. (5 + 5)
- 2 Discuss in detail about the construction of double coated X-ray film.

SHORT ESSAY (Answer any Ten)

10 X 5 = 50 Marks

- 3 What is penumbra? Discuss its importance. (2 + 3)
- 4 Describe the characteristic curve of X-ray film.
- 5 Define contrast. Explain about the types of contrast. (2 + 3)
- 6 Discuss about artifacts in X-ray films.
- 7 Explain the drying procedure of processed radiographs.
- 8 Discuss about maintenance of intensifying screen
- 9 Describe construction of an X-ray cassette.
- 10 Discuss the processing of tank method of film development.
- 11 Causes for lessened activity of the developer.
- 12 Discuss the steps involved while loading the unexposed film in the cassette for exposing.
- 13 Describe the construction of an intensifying screen and the phosphors used in construction (3 + 2).
- 14 Regeneration of solutions.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 15 ALARA
- 16 Principle of tomography.
- 17 List factors resolution of x-ray.
- 18 Advantage of using intensifying screens.
- 19 Replenisher exhaustion.
- 20 What is the effect of temperature on processing of films?
- 21 Explain the drying procedure of processed radiographs.
- 22 Ventilation of dark room.
- 23 Position of electrical switches in the dark room.
- 24 What is fogging phenomenon in x-ray film?
- 25 Explain the edge fog.
- 26 Silver recovery.

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Second Year Semester-IV
July / August 2019 Examination

B.Sc. Imaging Technology

Time : 3 Hrs.

[Max. Marks : 100]

Paper-III

Special Procedures with contrast media reactions and Management

Q.P Code : J4400

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

- 1 Describe in detail Intravenous Urography including radiographic techniques.
- 2 Write the classification of contrast media and write in detail about the contrast media used in MRI.

SHORT ESSAY (Answer any Ten)

10 X 5 = 50 Marks

- 3 Small bowel enema – Indications, contrast, technique.
- 4 Bronchography.
- 5 Lymphangiogram.
- 6 Barium swallow-Indications, contrast, technique.
- 7 Compare percutaneous transhepatic cholangiography and endoscopic retrograde cholangiography.
- 8 What are the uses of Fluoroscopy?
- 9 Lumbar myelography.
- 10 Virtual Colonoscopy.
- 11 What are the complications of HSG?
- 12 Micturating cystourethrography.
- 13 T tube cholangiogram.
- 14 Enteroclysis.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 15 What is Sinogram?
- 16 Patient preparation in hysterosalpingography.
- 17 Defecogram.
- 18 Discuss compartment syndrome.
- 19 Catheters used in angiography
- 20 Silver recovery.
- 21 Loopogram.
- 22 What are the types of contrast reaction?
- 23 Indications of digital subtraction angiography.
- 24 Invertogram.
- 25 Safe period for HSG.
- 26 What is Sialography?