

B.Sc. Imaging Technology Second Year Semester-IV

February 2020 Examination

Time: 3 Hrs.

Paper-I

[Max. Marks: 100]

Sub: 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 Explain in detail with reference to aim, indication and choice of machine and exposure factors involved in the radiography of knee joint.
- 2 Discuss the various x-rays to be performed in skeletal survey in a patient with a suspected metabolic bone disorder?

SHORT ESSAY (Answer any Ten)

10 X 5 = 50 Marks

- 3 Routine projection of the teeth.
- 4 Describe the steps in performing a chest radiograph.
- 5 Describe construction of a X-ray cassette.
- 6 Differences between erect x-ray abdomen and KUB x-ray.
- 7 Soft tissue radiography.
- 8 Radiographic imaging to demonstrate Bennetts fracture.
- 9 Variations of exposure factors.
- 10 Basic and supplementary projections for skull trauma.
- 11 Filters and their uses.
- 12 Basic views for imaging wrist.
- 13 Basic views of forearm.
- 14 Radiation protection for patient and operator in fluoroscopy.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 15 C spine radiography.
- 16 Axial projection for patella.
- 17 Caldwell's view.
- 18 Discuss the steps in mounting intensifying screen inside the cassette.
- 19 Special considerations for obtaining radiographs in children.
- 20 Imaging of SI joint.
- 21 Radiographs in acute abdomen.
- 22 Apicogram.
- 23 Orthopantomography.
- 24 Grids.
- 25 Temporomandibular joint views.
- 26 Demonstrate a view to visualize patella.

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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 detail about automatic film processing.
- 2 Write a note on components of X-ray film developer and fixer and their functions during processing (3 + 3 + 2 + 2).

SHORT ESSAY (Answer any Ten)

10 X 5 = 50 Marks

- 3 Discuss in details about contents of developer.
- 4 Dark room.
- 5 Discuss in details about contents of fixer.
- 6 Discuss about care of X-ray cassette.
- 7 Mention and discuss features of different types of films.
- 8 Uses of single coated X-ray film.
- 9 Safe light.
- 10 Discuss about different types of film holders.
- 11 Uses of single coated X-ray film.
- 12 Film Artifacts.
- 13 Describe the construction of an intensifying screen and the phosphors used in construction (3 + 2).
- 14 Mammography cassette.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 15 Double sided film.
- 16 Principle of tomography.
- 17 Sodium thiosulphate.
- 18 Discuss about safe light fog.
- 19 Short note on processing faults.
- 20 Describe reciprocity law in screen film combination.
- 21 ALARA
- 22 Does curling of film occur in double coated or single coated films? Discuss. (1 + 2)
- 23 Explain about edge fog.
- 24 Where are the hangers located in dark room?
- 25 List different types of grids.
- 26 Different sizes of Screen-Film Cassettes.

B.Sc. Imaging Technology Second Year Semester-IV

February 2020 Examination

Time: 3 Hrs.

Paper-III

[Max. Marks: 100]

Sub: Special procedures with contrast media reactions

Q.P Code: J4400

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 × 10 = 20 Marks

- 1 Barium Swallow: Indications, contra-indications and procedure?
- 2 Describe the micturating cystourethrography procedure in detail?

SHORT ESSAY (Answer any Ten)

10 × 5 = 50 Marks

- 3 Explain briefly about hysterosalpingography?
- 4 Describe briefly about Barium enema?
- 5 Write film sequences of Intra venous urogram?
- 6 What are the uses of Fluoroscopy?
- 7 Describe fistulogram?
- 8 Describe dacrocystogram?
- 9 Complications of femoral artery catheterization (due to contrast media and technique)?
- 10 Classification of contrast media?
- 11 Describe procedure of retrograde urethrography?
- 12 Brief note on pulmonary arteriography?
- 13 Write about digital subtraction angiography?
- 14 What are the types of contrast reactions?

SHORT ANSWERS (Answer any Ten)

10 × 3 = 30 Marks

- 15 Write a note on pressure injector?
- 16 What is 10 days rule?
- 17 Write about extravasation of contrast?
- 18 Catheters used in angiography?
- 19 Evacuating proctography?
- 20 Write about guide wire used in angiography?
- 21 Write about sinogram?
- 22 What are the indications for Intra venous urography?
- 23 Add a note on loopogram?
- 24 Write about emergency drugs in radiology department?
- 25 Write about HSG cannula?
- 26 Write a note on ascending aortography?