

B.Sc. Allied Health Sciences Second Year Semester-IV CBCS Scheme

August – 2018 Examination

B.Sc. Imaging Technology (IMT)

Time : 3 Hrs.

Paper – I

[Max. Marks : 100]

Basic Radiographic and fluoroscopy

Q.P Code : IMT401CC

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Describe in detail the preparation of the room, apparatus and instruments used in radiography.
2. How will you perform a skeletal survey in a patient with a suspected metabolic bone disorder?

SHORT ESSAY (Answer any Ten)

10X 5 = 50 Marks

3. Routine projections of the teeth.
4. Modifications in radiographic techniques in patients with disabilities.
5. Forced projections for torn ligaments.
6. Differences between erect x ray abdomen and KUB x ray.
7. Routine projections for the shoulder joint.
8. Basic and supplementary scaphoid views.
9. Variations of exposure factors.
10. Basic and supplementary projections for skull trauma.
11. Projections for intervertebral foramina.
12. Radiographic views in congenital hip dislocation/developmental hip dysplasia.
13. Radiographic views for the hand.
14. Radiation protection for patient and operator in fluoroscopy.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

15. Radiographic cones.
16. Axial projection for patella.
17. Gonad shield.
18. Supplementary projections for barium swallow.
19. Special considerations for obtaining radiographs in children.
20. X ray of nasal bones.
21. Radiographs in acute abdomen.
22. Apicogram.
23. Orthopantomography.
24. Grids.
25. Temporomandibular joint views.
26. Positioning of patients and views in suspected femoral neck fracture.

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Paper – II

[Max. Marks : 100]

Dark Room Processing

Q.P Code : IMT402CC

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Describe in detail the parts of an intensifying screen and the phosphors used in its construction. List the advantages and limitations of these screen.
2. List the various film faults. Describe them in detail with measures that can be taken to prevent them.

SHORT ESSAY (Answer any Ten)

10 X 5 = 50 Marks

3. Film dispensing.
4. Factors affecting resolution.
5. Characteristic curve of films.
6. Daylight system without cassettes.
7. Factors that affect washing and drying of films.
8. Automatic film processors.
9. Short focus and broad focus.
10. Regeneration of solutions.
11. Formation of latent image.
12. Speed of screens.
13. Fluorescence.
14. Films for special procedures.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

15. Non-screen films.
16. Dry bench.
17. Contact prints.
18. Types of paper equipment.
19. Types of hangars.
20. Spectral sensitivity.
21. Screen film contact tests.
22. Mounting intensifying screens in cassettes.
23. Types of densities on film.
24. Penumbra.
25. Focus to film distance.
26. Rinsing.

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Time : 3 Hrs.

Paper – III

[Max. Marks : 100]

Special Procedures with contrast media reaction and management

Q.P Code : IMT403CC

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

- 1 List the various gastrointestinal radiographic procedures and describe in detail the patient instruction and pre procedure preparation for each of them.
- 2 Describe in detail about conventional and digital subtraction angiography. Describe briefly about the pressure injector, guide wires and catheters that are used in angiography.

SHORT ESSAY (Answer any Ten)

10 X 5 = 30 Marks

- 3 Hypotonic duodenography.
- 4 Classify radiographic contrast media.
- 5 Water-soluble iodinated contrast enema for reduction of intussusception.
- 6 Adverse contrast reactions in the radiology department.
- 7 Precautions and after-care of patients while performing head and neck arteriography.
- 8 Barium meal follow through.
- 9 Radiation protection. What is ten-day rule?
- 10 Complications of barium swallow.
- 11 Hysterosalpingography.
- 12 Pulmonary arteriography.
- 13 Radioisotope studies of the gastro-intestinal tract.
- 14 Biplane angiography.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 15 What are the contrast used in the hysterosalpingography and how will you manage if the patient develop sudden pain in the pelvis after injection of contrast.
- 16 Indications for small bowel enema.
- 17 What is ten day rule in the hysterosalpingography.
- 18 Barium swallow for trachea-oesophageal fistula.
- 19 Contraindications for barium enema.
- 20 List the differences between barium and water-soluble iodinated contrast media.
- 21 How will you prepare the patient before Intravenous Uro - graphy (I.V.U).
- 22 What is double contrast study of colon.
- 23 Emergency drugs and resuscitation equipment in the radiology department.
- 24 What are types of contrasts used intravenously classify them.
- 25 Manual subtraction in angiography.
- 26 Views in coronary arteriography.