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MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

THIRD YEAR B.Sc. M.I.T. DEGREE EXAMINATION – AUGUST 2006

SUBJECT: PHYSICS AND DARK ROOM TECHNIQUES

Monday, August 14, 2006

Time: 3 Hrs.

Max. Marks: 80

✍ **Answer all questions.**

✍ **All questions carry equal marks.**

1. Write a short note on Auto transformers.
2. Draw the diagram and explain the parts of an X-ray tube.
3. Describe anode heel effect and its applications.
4. Write in detail about the contents and action of developer solution.
5. Enumerate the personal monitoring devices and describe about TLD.
6. Write a short note on automatic processor.
7. Write a short note on dark room safe lighting.
8. Write a short note on rotating anode.
9. Describe about Geiger Muller counter.
10. Write a short note on Semi-conductor.



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THIRD YEAR B.Sc. M.I.T. DEGREE EXAMINATION – AUGUST 2006**SUBJECT: RADIOGRAPHIC SPECIAL PROCEDURES**

Wednesday, August 16, 2006

Time: 3 Hrs.

Max. Marks: 80

✍ Answer all questions.

✍ Each question carries EIGHT marks.

1. Enumerate indications and contra indications of enteroclysis. Describe the procedure of enteroclysis in detail.
2. Discuss indications, contraindications and procedure of barium swallow.
3. Write short notes on:
 - 3A. Complications of angiography.
 - 3B. Indications and contraindications for sialography.
4. Write short notes on:
 - 4A. Contrast media used for intravenous urography with doses.
 - 4B. Preparation, premedication and complications of HSG.
5. Write about indications, contraindications, preparation and procedure of barium meal.
6. Describe the positioning for lumbar spine radiograph (AP & Lateral).
7. Describe the construction of ultrasound probe.
8. Describe Water's view and Town's view positioning.
9. Describe the views for humerus AP and axial.
10. What is continuous wave Doppler? What are the advantages and disadvantages?



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THIRD YEAR B.Sc. M.I.T. DEGREE EXAMINATION – AUGUST 2006**SUBJECT: NEW IMAGING MODALITIES AND RECENT ADVANCES**

Thursday, August 17, 2006

Time: 3 Hrs.

Max. Marks: 80

✍ **Answer all questions.**

✍ **All questions carry equal marks.**

1. What do you understand by CT number?
2. Discuss about principle of CT scan and discuss third generation CT scanner.
3. What is Xenon gas ionization chamber?
4. What is CT protocol for evaluation of paranasal sinuses?
5. Describe protocol for evaluation of kidneys.
6. What is technique for catheter angiography?
7. Describe indications, techniques and complication of fallopian tube recanalisation.
8. What are the advantages of digital radiography?
9. Discuss briefly digital subtraction techniques.
10. Write briefly about artifacts encountered in MRI.

