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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. M.I.T. DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: MANAGEMENT OF HEALTHCARE ORGANIZATION
(2012 SCHEME)

Tuesday, December 15, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

 **Answer all the questions**

1. What are various leadership styles? Explain with examples.

(15+5 = 20 marks)

2. **Write short notes on:**

- 2A. Importance of Decision-making
- 2B. Types of Budget
- 2C. Centralization and decentralization
- 2D. Hospital information System
- 2E. Span of management
- 2F. ABC Analysis

(10 marks × 6 = 60 marks)



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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. M.I.T. DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: ADVANCED TECHNIQUE AND INSTRUMENTATION OF MRI
(2012 SCHEME)

Wednesday, December 16, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ Answer ALL the questions.

✍ Major Question:

1. Write a note on MRI artifacts.

(20 marks)

2. Write Short Notes on:

2A. MIP

2B. MR Spectroscopy

2C. Protocols in MRI for whole body

2D. K-space representation

2E. Pulse sequences

2F. Quality assurance program

(10 marks × 6 = 60 marks)



MANIPAL UNIVERSITY**SECOND YEAR M.Sc. M.I.T. DEGREE EXAMINATION – DECEMBER 2015****SUBJECT: INTERVENTIONAL RADIOLOGY TECHNIQUES
(2012 SCHEME)**

Thursday, December 17, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ Answer all the questions:**✍ Major Question:**

1. Discuss the safety considerations, radiation monitoring and protective devices in angiography room.

(20 marks)

2. Write Short Notes on:

- 2A. Ultrasound guided liver abscess drainage
2B. Image intensifier
2C. Embolization agents in therapeutic angiography
2D. ALARA principle
2E. Catheters, embolizing agent(s) and technique of uterine artery embolization
2F. Fallopian tube recanalization

(10 marks × 6 = 60 marks)



Reg. No.

MANIPAL UNIVERSITY

SECOND YEAR M.Sc. M.I.T. DEGREE EXAMINATION – DECEMBER 2015

**SUBJECT: CARE OF PATIENTS IN DIAGNOSTIC RADIOLOGY
(2012 SCHEME)**

Friday, December 18, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

Answer ALL the questions.

1. Discuss in detail various adverse effects of contrast media and the treatment measures used in case of an event.

(20 marks)

Short notes:

- 2A. Modes of transmission of disease
2B. Acquired immunity
2C. Passive immunity
2D. Emerging diseases
2E. Management of occupational exposures to blood borne pathogens
2F. Universal precautions

(10 marks × 6 = 60 marks)



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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. M.I.T. DEGREE EXAMINATION – DECEMBER 2015

**SUBJECT: RADIATION EVALUATION & PROTECTION IN DIAGNOSTIC RADIOLOGY
(2012 SCHEME)**

Saturday, December 19, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions:**

✍ **Major question:**

1. Define the aim of radiation protection. Explain ALARA concept and the principles of radiation protection.

(20 marks)

2. **Write short notes on:**

2A. Effects of exposure on pregnant patient. Add a note on MPD for pregnant occupational worker.

2B. Radiation protection measures employed during fluoroscopy procedures.

2C. Area monitoring devices.

2D. Regulatory bodies involved in radiation protection.

2E. Purpose and types of radiographic filtration.

2F. Tissue weighting factor and radiation weighting factor.

(10 marks × 6 = 60 marks)



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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. M.I.T. DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: NUCLEAR MEDICINE IMAGING TECHNIQUE
(2012 SCHEME)

Monday, December 21, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL questions:**

✍ **Draw suitable diagrams wherever necessary.**

✍ **Major questions.**

1. Briefly explain the production of Radionuclides in detail.

(20 marks)

2. **Write short notes on:**

2A. Safe handling and transport of Radioactive materials.

2B. Preparation of different labelled compounds with Technetium-99m isotope.

2C. Working principle of Semiconductor detectors.

2D. Collimators used in Gamma camera.

2E. SPECT Instrumentation.

2F. Bone scan imaging using Gamma camera.

(10 marks × 6 = 60 marks)

