

MANIPAL UNIVERSITY**FOURTH SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION – JUNE 2017****SUBJECT: MIT 401: ADVANCED TECHNIQUES AND INSTRUMENTATION OF MRI
(2015 SCHEME)**

Thursday, June 01, 2017

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ Answer ALL the questions.

✍ Draw suitable diagrams wherever required.

✍ Major Question.

1. Write a detailed note on scan parameters and image optimization techniques in MRI.

(20 marks)

2. **Short Answers.**

2A. Write a short note on contrast enhanced MRA.

2B. Explain the functions of gradient coils.

2C. Write a short note image weighting and contrast in fast spin echo.

2D. Write a short note on incoherent gradient echo.

2E. Explain parallel imaging in short.

2F. Write a short note on MRI pulse sequences used for knee imaging.

(10 marks × 6 = 60 marks)



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MANIPAL UNIVERSITY

FOURTH SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION – JUNE 2017

SUBJECT: MIT 402: INTERVENTIONAL RADIOLOGY TECHNIQUES
(2015 SCHEME)

Saturday, June 03, 2017

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ Answer ALL the questions.

✍ Major question:

1. Briefly explain the Cerebral Arterial vessel anatomy and add a note on four vessel cerebral angiography.

(20 marks)

2. Write short notes on:

- 2A. Guidewires and catheter sterilization
- 2B. Principles of 3D Rotational Angiography
- 2C. Nephrostomy and Ureteric Stenting
- 2D. Protocol for Upper limb Angiography
- 2E. Recent advancements in Angiography equipment by top vendors
- 2F. Vertebroplasty

(10 marks × 6 = 60 marks)



Reg. No.

MANIPAL UNIVERSITY

FOURTH SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION – JUNE 2017

SUBJECT: MIT 403: MANAGEMENT OF HEALTHCARE ORGANIZATIONS
(2015 SCHEME)

Tuesday, June 06, 2017

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions.**

1. Define Medical Record. Outline the importance of the patient/medical record to the administrator, doctor and to the patient. Add a note on EMR.

(3+10+7 = 20 marks)

2. **Write short notes on:**

- 2A. What is PACS? Briefly explain the functioning of the hospital PACS system.
2B. What is Inventory? How will you ensure proper inventory control mechanism?
2C. Outline the differences between cost benefit analysis (CBA) Vs cost effectiveness analysis (CEA).
2D. Define Quality Assurance. How will you store look alike and sound alike medication in Pharmacy.
2E. What is a Hospital diet? Outline the functions of the Dietary Department.
2F. Classify Outpatients. Outline some of the common problems in OPD. How will you overcome them?

(10 marks × 6 = 60 marks)

