Reg.	No.						

MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION – JUNE 2018

SUBJECT: MIT 401: ADVANCED TECHNIQUES AND INSTRUMENTATION OF MRI (2015 SCHEME)

Tuesday, June 12, 2018

Time: 10:00 - 13:00 Hrs.

Maximum Marks: 80

- Answer ALL the questions.
- Z Draw suitable diagrams wherever required.
- Major question.
- 1. Explain flow phenomena and their compensation techniques.

(20 marks)

- 2. Short answers:
- 2A. Describe T1, T2 and proton density weighting and contrast.
- 2B. Explain different options for K space filling in short.
- 2C. Write a note on spatial resolution in MRI.
- 2D. Write a note on image weighting and significance of conventional inversion recovery.
- 2E. Write a note on balanced gradient echo.
- 2F. Write a note on cardiac gating.

 $(10 \text{ marks} \times 6 = 60 \text{ marks})$

Reg. No.				

MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION - JUNE 2018

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

Thursday, June 14, 2018

Time: 10:00 - 13:00 Hrs.

Maximum Marks: 80

- Major question:
- 1. Briefly explain the Crash Cart-Emergency drugs in angiography.

(20 marks)

- 2. Write short notes on:
- 2A. Catheters
- 2B. Principles of 3D Rotational Angiography
- 2C. Coronary Angiography
- 2D. Protocol for Renal Angiography
- 2E. Recent advancements in dose reduction techniques in Angiography by top vendors
- 2F. RF Ablation and Image Guided Nerve Blocks

 $(10 \text{ marks} \times 6 = 60 \text{ marks})$

		 	7
7-0-0-0		1 1	
Reg. No.			
1108. 1101			

MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION – JUNE 2018

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

Monday, June 18, 2018

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

- 1. Define Leadership. Outline the difference between Leadership and management. Share one experience of your in which you exhibited leadership role.

(3+10+7 = 20 marks)

- 2. Write short notes on:
- 2A. How can you adopt the 'theories of motivation' in day to day functioning of the industry?
- 2B. What is ABC analysis? Explain the steps of ABC analysis.
- 2C. What is Health economics? How is it useful to the administrator?
- 2D. Discuss the steps in implementation of a Quality Management System.
- 2E. What is a Hospital Blood Bank? Outline the functions of the Blood bank.
- 2F. Classify Outpatients. Outline come of the common problems in OPD. How will you overcome them?

 $(10 \text{ marks} \times 6 = 60 \text{ marks})$