

Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION
FIRST SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION – JANUARY 2018
SUBJECT: MIT 101: RADIOGRAPHIC PROCEDURES
(2015 SCHEME)

Wednesday, January 03, 2018

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions.**

✍ **Major question:**

1. Discuss briefly skeletal survey. Add a note on skeletal age assessment.

(20 marks)

2A. Draw a labeled diagram of circle of Willis. Explain the radiographic views for skull trauma.

2B. Discuss briefly the different techniques in dental radiography.

2C. Discuss briefly pelvimetry. Write a short notes on 28th day rule.

2D. Discuss in detail GIT contrast media.

2E. Explain the view to demonstrate the bicipital groove.

2F. Explain the projection Judd's method.

(10 marks × 6 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION – JANUARY 2018

SUBJECT: MIT 102: INSTRUMENTATION OF CONVENTIONAL AND SPECIALIZED
RADIOLOGY EQUIPMENT'S
(2015 SCHEME)

Friday, January 05, 2018

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions.**

✍ **Major question:**

1. Explain in detail about quality assurance tests for conventional radiology equipments.

(20 marks)

2. **Write short notes on:**

2A. High tension cables

2B. Valve tube rectification

2C. Delay circuit in X ray tube

2D. Cones and cylinders

2E. Mobile X ray units

2F. Different types grids

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION**FIRST SEMESTER M.Sc. M.I.T. DEGREE EXAMINATION – JANUARY 2018****SUBJECT: MIT 103: PRINCIPLES OF RADIOGRAPHIC EXPOSURE
(2015 SCHEME)**

Monday, January 08, 2018

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ Answer ALL the questions.

1. Discuss briefly on Management of the quality of the radiographic image.

(20 marks)

2. **Write short notes on:**

2A. The effect of exposure factors on image quality

2B. Factor affecting developer replenishment rate

2C. Dark room layout and construction

2D. Light sensitive photographic films

2E. Image formation in general radiography

2F. QDE and the QCE of the film and screen

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION

FRIST YEAR MASLP / MOT / MSc. MLT / MSc. NMT / MSc. MIT / MSc. RRT & DT / SECOND SEMESTER M.Sc. EXERCISE AND SPORTS SCIENCE / M.Sc. HIM / M.Sc. HHIA / M.Sc. MIT/M.Sc. CLINICAL PSYCHOLOGY DEGREE EXAMINATION – DECEMBER 2017

SUBJECT: STATISTICS & RESEARCH METHODS / ADVANCED BIOSTATISTICS & RESEARCH METHODOLOGY / BIOSTATISTICS / PAPER IV: ADVANCED BIOSTATISTICS & RESEARCH METHODOLOGY / BIOSTATISTICS / ADVANCED BIOSTATISTICS & RESEARCH METHODOLOGY / RESEARCH METHODOLOGY & BIOSTATISTICS / EPIDEMIOLOGY & BIOSTATISTICS / EPIDEMIOLOGY & BIOSTATISTICS / BIOSTATISTICS/ADVANCED BIOSTATISTICS & RESEARCH METHODOLOGY

Friday, December 15, 2017

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL questions.**

- 1A. What are quartiles? When do we use inter quartile range as a measure of variability?
1B. List the advantages of sampling over census. Give example for non-sampling errors.
(5+5 = 10 marks)
2. If the uric acid values in normal adult males are approximately normally distributed with a mean and standard deviation of 6 and 1 mg percent respectively, find the probability that a randomly selected male will have the uric acid value:
2A. i) Greater than 7
ii) Between 4 and 7
2B. Explain the characteristics of Poisson distribution.
(5+5 = 10 marks)
3. Define the following terms:
3A. i) Power of a test
ii) P-value
iii) Type I and Type II errors
3B. Describe with example the situation in which you would use one-way analysis of variance. What is the null hypothesis tested? List the assumptions.
((1+2+2) + 5 = 10 marks)
- 4A. Differentiate parametric and non-parametric tests. Explain the situation for Wilcoxon signed rank test.
4B. Explain with example the computation procedure of Chi-square test statistic.
(5+5 = 10 marks)

5A. In a random sample of 60 females above 50 years of age, it was observed that 15 subjects were overweight. Construct a 95% confidence interval for the population prevalence of overweight. (Given $Z_{1-\alpha/2}=1.96$).

5B. Write a short note on Survival Analysis.

(5+5 = 10 marks)

6. Discuss Randomized Controlled trial under:

6A. Basic Design

6B. Basic features

6C. Basic steps

6D. Merits and demerits

(10 marks)

7. Explain the structure of a scientific report.

(10 marks)

8. **Write short notes on the following:**

8A. Case series and case reports.

8B. Predictive values of a diagnostic test.

(5+5 = 10 marks)

