

# Question Paper

Exam Date & Time: 24-May-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. MEDICAL IMAGING TECHNOLOGY DEGREE EXAMINATION - MAY 2022  
SUBJECT: MIT2201- RADIATION SAFETY IN RADIODIAGNOSIS  
(2020 SCHEME)

Answer ALL questions.

Marks: 100

Duration: 180 mins.

- 1) Describe the construction, working, advantages and disadvantages of personnel monitoring devices (20)
- 2) Describe in detail the biological effects of Radiation (20)
- 3) Illustrate Primary and secondary barriers (10)
- 4) Outline the design and shielding requirements for diagnostic X-ray facilities (10)
- 5A) Write a note on the radiation dose limit to occupation workers (5)
- 5B) Write a note on radioactivity (5)
- 5C) What is the need of radiation protection (5)
- 5D) What are the effects of exposure factors in radiation dose? (5)
- 5E) List the types of radiation monitoring devices (5)
- 5F) Write a note on exposure in Children (5)
- 6A) Define LD50 (2)
- 6B) Define OER (2)
- 6C) What is ICRP? (2)
- 6D) Define cardinal principle of Radiation protection (2)
- 6E) Define DLP (2)

-----End-----

# Question Paper

Exam Date & Time: 26-May-2022 (10:00 AM - 12:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. EMT/B.Sc. RRT & DT/B.Sc. CVT/B.Sc. MIT/BOT/B.Sc. PFT/B.Sc.AOTT DEGREE  
EXAMINATION - MAY 2022  
SUBJECT: PHC2203 - PHARMACOLOGY  
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Describe the terms "Iatrogenic disease", "Generic name" and "Synergism" with suitable examples. (10)  
List two sources of drugs with an example for each. List two advantages and two disadvantages of the intravenous route of drug administration.  
(6+2+2 = 10 marks)
- 2A) List two anticholinesterases and describe their mechanism of action. Mention two adverse effects of atropine. List two examples and two therapeutic uses of adrenergic drugs. (6)
- 2B) List two examples each for skeletal muscle relaxants and general anaesthetics. Mention four pharmacological actions of morphine. (4)
- 3A) List two drugs used for peptic ulcer and explain the mechanism of action of any one of them. (5)  
Mention two classes of antiemetics with an example for each.
- 3B) Explain the mechanism of action of warfarin and list its two adverse effects. Enumerate two oral iron preparations and mention their two therapeutic uses. (5)
- 3C) List three classes of drugs with an example for each used in hypertension. Explain the mechanism of action of any one class. (5)
- 3D) Define suprainfection with an example. List two common features of aminoglycosides. List two drugs each used in tuberculosis and viral infection. (5)
- 4A) List two uses and two adverse effects of glucocorticoids. (2)
- 4B) Explain the mechanism of anti-asthmatic action of salbutamol. (2)
- 4C) List two second generation antihistaminics and mention their two advantages over first generation antihistaminics. (2)
- 4D) Explain the anti-inflammatory action of aspirin. (2)
- 4E) List two each anti-thyroid and oral antidiabetic drugs. (2)

-----End-----

# Question Paper

Exam Date & Time: 30-May-2022 (10:00 AM - 12:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. MEDICAL IMAGING TECHNOLOGY DEGREE EXAMINATION - MAY 2022  
SUBJECT: MIT 2241-PROGRAM ELECTIVE-I - ADVANCED IMAGE GUIDED PROCEDURES  
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Illustrate the anatomy of biliary tree. Explain the procedure of T-tube cholangiography in detail. (10)
- 2) Explain the procedure for coronary angioplasty. (10)
- 3A) Briefly explain the procedure and filming techniques of Percutaneous Transhepatic Biliary Drainage. (5)
- 3B) What is pigtail insertion? Add a note on the equipment required and the procedure for pigtail insertion. (5)
- 3C) Classify embolic agents along with examples used in interventional radiology. (5)
- 3D) Write a short note on the anatomy of the Circle of Willis with a neat labelled diagram. (5)
- 4A) Define angiography. (2)
- 4B) List the indications of phlebography. (2)
- 4C) Outline the patient preparation for uterine artery embolization. (2)
- 4D) Name the types of IVC filter. (2)
- 4E) What are the indications and contraindications for image guided nerve block procedures. (2)

-----End-----