

Question Paper

Exam Date & Time: 15-Jan-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. RADIOTHERAPY TECHNOLOGY / B.Sc. MEDICAL RADIOTHERAPY TECHNOLOGY DEGREE
EXAMINATION - JANUARY 2021
SUBJECT: BRTT 203/ BMRT 203 - PRINCIPLES AND PRACTICE OF RADIOLOGY PART I
(2016 RV/2016 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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|-----|--|------|
| 1) | Explain radiographic film, its construction and types. | (10) |
| 2) | Explain the production of X-rays in detail. | (10) |
| 3A) | Compare Manual and Automatic processing technique. | (5) |
| 3B) | Write a note on types of Cassettes. | (5) |
| 3C) | Draw a neat, labelled diagram of automatic processor. | (5) |
| 3D) | List down the types of beam restrictors and add a note on collimators. | (5) |
| 4A) | Draw and label rotating anode X-ray tube. | (2) |
| 4B) | Define luminescence. | (2) |
| 4C) | PACS | (2) |
| 4D) | Define dry bench and wet bench. | (2) |
| 4E) | List the types of grids. | (2) |

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Question Paper

Exam Date & Time: 18-Jan-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.O.T./ B.Sc. P.F.T./ BPT/ B.Sc. M.R.T./B.Sc. RADIOTHERAPY TECHNOLOGY/ B.Sc. C.V.T./B.Sc.
R.T./B.Sc. M.I.T./B.Sc. RRT&DT/B.Sc. EMT/B.Sc. AOTT DEGREE EXAMINATION - JANUARY 2021
SUBJECT: PATH 201 - PATHOLOGY
(2016/2016 RV/2019 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1A) Define leukaemia. Classify acute leukaemia. Describe the clinical features of acute leukaemia. (6)
(2+2+2 = 6 marks)
- 1B) Describe the blood picture and chromosomal abnormality of chronic myeloid leukaemia. (4)
- 2A) Compare the two major types of diabetes mellitus. (5)
- 2B) Define shock. Explain the pathogenesis of septic shock. (5)
(2+3 = 5 marks)
- 3A) Explain the vascular and cellular changes in acute inflammation. (5)
- 3B) Describe the etiology, modes of infection and clinical features of viral hepatitis. (5)
- 3C) Explain the process of fracture healing with factors influencing the healing. (5)
- 3D) Describe the types and morphology of tuberculosis. (5)

4. Write briefly on:

- 4A) Predisposing factors of atherosclerosis. (2)
- 4B) Cerebrovascular diseases. (2)
- 4C) Klinefelter's syndrome. (2)
- 4D) Carcinogenesis with suitable examples. (2)
- 4E) Clinical features of renal failure. (2)

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Question Paper

Exam Date & Time: 20-Jan-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. RADIOTHERAPY TECHNOLOGY/B.Sc. MEDICAL RADIOTHERAPY TECHNOLOGY DEGREE
EXAMINATION - JANUARY 2021
SUBJECT: BRTT 205/BMRT 205 - PATIENT POSITIONING AND IMMOBILIZATION/MOULD ROOM TECHNIQUES
(2016 RV/2016 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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|-----|--|------|
| 1) | Mention the different patient elevation system and explain any three. | (10) |
| 2) | What are different types of wedges? Explain in detail. | (10) |
| 3A) | Write a short note on Electronic Portal Imaging System. | (5) |
| 3B) | Briefly explain the individual malignancies immobilization in oral cavity. | (5) |
| 3C) | Explain the function and need of Radiotherapy simulator. | (5) |
| 3D) | Write a short note on styrofoam cutter. | (5) |
| 4A) | Mention the density of lead and cerrobend. | (2) |
| 4B) | What are the different types of compensators? | (2) |
| 4C) | Define divergent blocks. | (2) |
| 4D) | What are the objectives of immobilization devices? | (2) |
| 4E) | Define wedge factor. | (2) |

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