

# Question Paper

Exam Date & Time: 08-Jun-2019 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. MEDICAL RADIOTHERAPY TECHNOLOGY DEGREE EXAMINATION - MAY/JUNE 2019  
SUBJECT: BMRT 208/BRTT 208 - HOSPITAL PRACTICE AND PATIENT CARE  
(2016 SCHEME)  
Saturday, June 08, 2019 (14.00 - 16.00)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) What are the universal precautions to be undertaken in the hospital? (10)
- 2) Explain the types of diversions in stoma. (10)
- 3A) Explain dietary advice in cancer patients. (5)
- 3B) What are the instructions to be given for patient during and after Completion of radiotherapy? (5)
- 3C) Explain legal aspects of medical records. (5)
- 3D) Write a short note on common side effects of radiation. (5)
- 4A) Define cardiopulmonary resuscitation. (2)
- 4B) What are the types of informed consent? (2)
- 4C) What care is to be taken for patient having foleys catheter? (2)
- 4D) Discuss the precaution for moving an unconscious patient. (2)
- 4E) What are the factors that increase bone loss? (2)

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# Question Paper

Exam Date & Time: 28-May-2019 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. MEDICAL RADIOTHERAPY TECHNOLOGY DEGREE EXAMINATION - MAY/JUNE 2019  
SUBJECT: BRTT 202 - PHYSICS OF EXTERNAL BEAM RADIOTHERAPY  
(2016 SCHEME)  
Tuesday, May 28, 2019 (14.00 - 17.00)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1A) Define PDD. Mention the factors on which PDD depends. (20)
- 1B) Briefly explain the concept of treatment simulation. (20)
- 2A) Discuss in detail the different wedge system. (10)
- 2B) Briefly explain with a neat labelled diagram the electron treatment head of medical linear accelerator. (10)
- 3A) **Calculate the PDD** (5)  
i) If dose at depth of 7 cm is 125 cGy and the dose at Dmax is 200cGy  
ii) If the tumor dose at depth of 9 cm is 75 cGy and the Applied Dose is 125 cGy.
- 3B) Write a short note on phantom. (5)
- 3C) Briefly explain the concept of verification of patient data. (5)
- 3D) Write a short note on shielding blocks. (5)
- 3E) With a neat labelled diagram explain the concept of TAR. (5)
- 3F) Write Guidelines for Field Matching. (5)
- 4A) What is R90? (2)
- 4B) Define Depth R50. (2)
- 4C) Mention different beam shaping methods. (2)
- 4D) Define inverse square law. (2)
- 4E) Define is tray transmission factor. (2)

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# Question Paper

Exam Date & Time: 12-Jun-2019 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. MEDICAL RADIOTHERAPY TECHNOLOGY DEGREE EXAMINATION - MAY/JUNE 2019  
SUBJECT: BRTT 204 - PHYSICS OF BRACHYTHERAPY  
(2016 SCHEME)  
Wednesday, June 12, 2019 (14.00 - 16.00)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Write a note on various treatment techniques in brachytherapy. (10)
- 2) Derive the radioactive decay law and obtain the expression for half life. (10)
- 3A) Write a note on Activity of brachytherapy in source strength measurement. (5)
- 3B) Write a short note on Manchester system. (5)
- 3C) Write a short note on Intracavitary therapy. (5)
- 3D) Write a note on classification of brachytherapy on dose rate. (5)
- 4A) Define Point A. (2)
- 4B) Define mean life. (2)
- 4C) What are the advantages of brachytherapy source? (2)
- 4D) Mention the half life, specific activity and exposure rate constant of cobalt 60 source. (2)
- 4E) Mention the various source loading technique in Brachytherapy. (2)

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# Question Paper

Exam Date & Time: 04-Jun-2019 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. MEDICAL RADIOTHERAPY TECHNOLOGY DEGREE EXAMINATION - MAY/JUNE 2019  
SUBJECT: BRTT 206 - PRINCIPLES AND PRACTICE OF RADIOLOGY PART - II  
(2016 SCHEME)

Tuesday, June 04, 2019 (14.00 - 16.00)

Answer all the questions.  
Draw diagrams wherever required.

Marks: 50

Duration: 120 mins.

Answer the following questions:

1) Discuss in detail the techniques and types of DSA. (10)

2) Draw a labelled diagram of ankle joint. Discuss in detail AP mortise and AP stress projection. (10)

3) Discuss the following:

3A) Explain the QA test done to check the focal spot size in radiographic equipment. (5)

3B) Post processing techniques in CT (5)

3C) Scaphoid series (5)

3D) Basic projections for Lumbar spine (5)

4) Write short notes on:

4A) Lead apron (2)

4B) Claustrophobia (2)

4C) Collimation in CT (2)

4D) Hand AP projection (2)

4E) Tarsal bones (2)

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# Question Paper

Exam Date & Time: 31-May-2019 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER BPT AND SECOND SEMESTER B.Sc. M.R.T./BASLP DEGREE EXAMINATION - MAY/JUNE 2019  
SUBJECT: PSYC 204/BMRT 110 - PSYCHOLOGY/ CLINICAL PSYCHOLOGY  
(2016/2017 SCHEME)  
Friday, May 31, 2019 (14.00 - 17.00)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- |     |   |      |
|-----|---|------|
| 1A) | Define emotion. Discuss various theories of emotion.                | (20) |
| 1B) | Explain personality disorders according to ICD - 10 classification. | (20) |
| 2A) | Describe any two models of mental disorders.                        | (10) |
| 2B) | Piaget's theory of cognitive development.                           | (10) |
| 3A) | Mental retardation  | (5)  |
| 3B) | Perceptual organization   | (5)  |
| 3C) | Schizophrenia- Subtypes   | (5)  |
| 3D) | Types of conflict   | (5)  |
| 3E) | Classical conditioning  | (5)  |
| 3F) | Concepts of normality   | (5)  |
| 4A) | Shaping   | (2)  |
| 4B) | Phobia  | (2)  |
| 4C) | Introspection method  | (2)  |
| 4D) | Intelligence  | (2)  |
| 4E) | Types of memory   | (2)  |

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