



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. MEDICAL RADIOTHERAPY TECHNOLOGY DEGREE EXAMINATION - MAY/JUNE  
2018

SUBJECT: BMRT 204 - PHYSICS OF BRACHYTHERAPY  
(2016 SCHEME)

Thursday, May 31, 2018 (14.00 - 16.00)

Answer ALL questions.

Marks: 50

Duration: 120 mins.

- |     |   |      |
|-----|---|------|
| 1)  | Discuss in detail on different brachytherapy source loading technique.                  | (10) |
| 2)  | Write a note on history of Brachytherapy.   | (10) |
| 3A) | Briefly write a note on Auto radiograph.  | (5)  |
| 3B) | Write a short note on Computer system of implant dosimetry.                             | (5)  |
| 3C) | Write a note on classification of brachytherapy on dose rate.                           | (5)  |
| 3D) | Mention the specification of the following sources:<br>i) Cobalt            ii) Iridium | (5)  |
| 4A) | Define activity.  | (2)  |
| 4B) | Define Half life.   | (2)  |
| 4C) | Convert 10Ci in terms of becquerel  | (2)  |
| 4D) | Mention the various brachytherapy treatment technique.                                  | (2)  |
| 4E) | Define KERMA.   | (2)  |

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FOURTH SEMESTER B.Sc. MEDICAL RADIOTHERAPY TECHNOLOGY DEGREE EXAMINATION - MAY/JUNE  
2018

SUBJECT: BMRT 206 - PRINCIPLES AND PRACTICE OF RADIOLOGY PART - II  
(2016 SCHEME)

Saturday, June 02, 2018 (14.00 - 16.00)

Answer all the questions.  
Draw diagrams wherever required.

Marks: 50

Duration: 120 mins.

- 1) Discuss in detail the basic principles of CT with diagram. (10)
- 2) Draw a labelled diagram of knee joint. Explain in detail basic projections for demonstration of the knee joint. (10)
  
- 3) **Discuss the following:**
  - 3A) Fisk method (5)
  - 3B) Anterior Posterior Mortise (5)
  - 3C) Pelvis Anterior Posterior (5)
  - 3D) Mask subtraction in DSA (5)
  
- 4) **Write short notes on:**
  - 4A) Larmour frequency (2)
  - 4B) Define QA & QC (2)
  - 4C) Shimming (2)
  - 4D) Name the Carpel bones (2)
  - 4E) Foot Anterior Posterior view (2)

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