



MBH-5122

Seat No. _____

M. D. (Branch - XV) Examination

April / May - 2018

Radiotherapy : Paper - I

(Radio-Physics & Applied Basic Science)

Time : 3 Hours]

[Total Marks : 100

Instructions : (1) Write legibly, no marks are given for unreadable material.

(2) Figures to the right indicate full marks.

(3) Answer to the point.

(4) All questions carry equal marks.

1 Describe various methods of immobilisation, beam alignment and treatment verification in radiotherapy. Discuss significance of immobilisation in Radiotherapy. **20**

2 What is CHART ? Describe this fractionation regimen in detail and its results in Head and Neck cancer. **20**

3 Describe the anatomy of breast and its drainage areas with relevance to management of carcinoma of breast. Discuss various methods of screening of breast cancer. **20**

4 Attempt both (a) and (b) **20**
(a) What is ALARA principle ? How this principle has been used for radiation protection ?
(b) Explain characteristics of electron beam used in radiotherapy.

5 Write short notes on any four : **20**
(a) Therapeutic ratio
(b) Tumor angiogenesis
(c) Flattening Filter
(d) Photo-electric effect
(e) Iridium 192.