# National Board of Examinations

Question Paper Name :	DNB Radiation Oncology Paper4
Is this Group for Examiner? :	No

nable Mark as Answered Mark for Review and	Yes
Clear Response :	res

# **Question Number : 1 Question Type : SUBJECTIVE**

- a) Radiobiology of hypofractionation. [5]
- b) Radium 223 uses and mechanism of action. [5]

# **Question Number : 2 Question Type : SUBJECTIVE**

- a) Models of cell survival curve. [5]
- b) LQ Model advantages & limitations. [5]

## **Question Number : 3 Question Type : SUBJECTIVE**

- a) Inverse dose effect. [5]
- b) Radiosensitisers. [5]

# **Question Number : 4 Question Type : SUBJECTIVE**

- a) Discuss Sublethal damage, potentially lethal damage and dose rate. [5]
- b) Describe LET, RBE and OER. Discuss the relationship between them with appropriate diagrams. [5]

# **Question Number : 5 Question Type : SUBJECTIVE**

a) Discuss the role, indications, mechanism of action and adverse effects of hyperthermia. [5]

b) HVL, PDD & TAR. [5]

#### **Question Number : 6 Question Type : SUBJECTIVE**

a) Discuss in detail Five R's of Radiobiology. Make neat diagrams where applicable. [5]b) Intraluminal brachytherapy for bile duct carcinoma. [5]

#### **Question Number : 7 Question Type : SUBJECTIVE**

a) Discuss National Cancer Control Program: goals and objectives. What latest revisions have been done in NCCP. Briefy describe Onconet - India. [5]
b) Describe various HPV vaccines. Discuss how will you shape the National HPV vaccination program in India. [5]

## **Question Number : 8 Question Type : SUBJECTIVE**

a) Discuss 99m Tc and PET Bone Scan with advantages & disadvantages in both forms of bone scan. [5]
b) I-131 in Thyroid carcinoma. [5]

## **Question Number : 9 Question Type : SUBJECTIVE**

a) Radioembolisation. [5]

b) Extracorporeal Radiotherapy. [5]

#### **Question Number : 10 Question Type : SUBJECTIVE**

Total-body radiation: indications, technique and doses delivered. [10]