

National Board of Examinations

Question Paper Name :	DNB Radiation Oncology Paper4
Subject Name :	DNB Radiation Oncology Paper4
Creation Date :	2022-06-25 18:45:04
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Share Answer Key With Delivery Engine :	No
Actual Answer Key :	No

DNB Radiation Oncology Paper4

Group Number :	1
Group Id :	3271871180
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

DNB Radiation Oncology Paper4

Section Id :	3271871183
Section Number :	1

Section type : Offline
Mandatory or Optional : Mandatory
Number of Questions to be attempted : 10
Section Marks : 100
Enable Mark as Answered Mark for Review and Clear Response : Yes
Maximum Instruction Time : 0
Sub-Section Number : 1
Sub-Section Id : 3271871187
Question Shuffling Allowed : No

Question Number : 1 Question Id : 32718710852 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Please write your answers in the answer booklet within the allotted pages as follows:-

Question Number	Answer to be attempted within	Question Number	Answer to be attempted within
Q. 1	Page 1-5	Q. 6	Page 26-30
Q. 2	Page 6-10	Q. 7	Page 31-35
Q. 3	Page 11-15	Q. 8	Page 36-40
Q. 4	Page 16-20	Q. 9	Page 41-45
Q. 5	Page 21-25	Q. 10	Page 46-50

1. What is FFF LINAC? Briefly describe the process of commissioning and quality assurance checks in a LINAC. [5+5]

Question Number : 2 Question Id : 32718710853 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Describe the effect of dose rate on radiation induced cell killing. [5]
b) How do you manage radiation treatment interruption? [5]

Question Number : 3 Question Id : 32718710854 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

What is the unit for radiation protection? Discuss the steps to be taken after accidental exposure of a radiation worker. [2+8]

Question Number : 4 Question Id : 32718710855 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Describe the role of PET-CT in Oncology. [10]

Question Number : 5 Question Id : 32718710856 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Describe properties of three brachytherapy sources in details. [5]
- b) What is the difference between sealed and unsealed sources? Give examples for the same. [5]

Question Number : 6 Question Id : 32718710857 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Intraoperative radiotherapy. [5]
- b) Describe IGRT. [5]

Question Number : 7 Question Id : 32718710858 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Describe in detail the cardiac sparing techniques in radiotherapy. [10]

Question Number : 8 Question Id : 32718710859 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Surface mould brachytherapy - indication, techniques, and outcome. [5]
- b) New radioisotopes in brachytherapy. [5]

Question Number : 9 Question Id : 32718710860 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Describe the structure, pros and cons of MR LINAC. [10]

Question Number : 10 Question Id : 32718710861 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Describe the paradigm changes in the management of oligometastatic disease. [5]
- b) Describe the role of chemoradiotherapy in lung cancer. [5]