

National Board of Examinations

Question Paper Name :	DNB Radiation Oncology Paper1
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DNB Radiation Oncology Paper1

Group Number :	1
Group Id :	3271872036
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Group Marks :	100
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

DNB Radiation Oncology Paper1

Section Id :	3271872039
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 :	3271872043
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 1 Question Id : 32718724603 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

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. a) National Cancer Control program in India with respect to its aims and implementation. [5]
- b) Enumerate the current guidelines for Breast Cancer Screening for women at normal risk of developing cancers. [5]

Question Number : 2 Question Id : 32718724604 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) Define the levels of lymph nodes in the neck. [5]
- b) What are the guidelines for delineation (CT Based) of LN bearing regions (i.e high risk and low

risk CTV) in the neck? [5]

Question Number : 3 Question Id : 32718724605 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Nutritional aspects of patients receiving chemotherapy and radiation therapy, and its standardization in management of head & neck cancers. [10]

Question Number : 4 Question Id : 32718724606 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

With regards to malignant supratentorial gliomas:

- a) What are the salient features of the 2021 WHO classification of malignant gliomas? [5]
- b) What additional molecular / genetic studies are warranted to treat a grade II astrocytoma diagnosed using conventional histopathology? [5]

Question Number : 5 Question Id : 32718724607 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) Current guidelines for reporting Randomized clinical trials in Radiation Oncology. [4]
- b) How will you design a Phase III Clinical Trial in Oncology? [3]
- c) What is randomized clinically controlled double blind trial? [3]

Question Number : 6 Question Id : 32718724608 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Draw the isodose curves for (representative of a typical beam):

- a) Photon beam. [3]
- b) Electron beam. [3]
- c) Proton beam. [2]
- d) Carbon ions. [2]

Question Number : 7 Question Id : 32718724609 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) Describe procedures involved in commissioning of a linear accelerator. [6]
- b) What are various acceptance tests done before commissioning a linear accelerator for patient treatment? [4]

Question Number : 8 Question Id : 32718724610 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) Discuss the rationale and clinical application of tomotherapy. [4]
- b) Discuss its principle and construction. [4]
- c) How it differs from linac based arc therapy? [2]

Question Number : 9 Question Id : 32718724611 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) What are the quantities and units used for radiation protection purposes? [3]
- b) Radiation dose limits for radiation workers, pregnant women and public. [4]
- c) Compare stochastic effects and non-stochastic effects. [3]

Question Number : 10 Question Id : 32718724612 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Correct Marks : 10

Various Fractionation Schedules:

- a) Compare in a tabular form their specific indications. [5]
- b) Describe in brief their early and late normal tissue effects. [5]