

National Board of Examinations

Question Paper Name :	DNB Radiation Oncology Paper1
Subject Name :	DNB Radiation Oncology Paper1
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Actual Answer Key :	No

DNB Radiation Oncology Paper1

Group Number :	1
Group Id :	327187837
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 :	327187840
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 :	327187844
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 1 Question Id : 32718720772 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

1. a) Discuss various radiosensitizers used in radiotherapy. [5]
- b) RECIST and PERCIST criteria of response to treatment. [5]

Question Number : 2 Question Id : 32718720773 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 pathophysiology of radiation induced toxicity. [4]
- b) Discuss about RTOG grading of radiation induced mucositis. [4]
- c) What is biodosimetry? [2]

Question Number : 3 Question Id : 32718720774 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 is maximum permissible dose? [1]
- b) Define and write in brief about DVH (Dose Volume Histogram). [3]
- c) Describe how to evaluate the radiotherapy plan generated with respect to Dose Volume Histogram and biological indices. [6]

Question Number : 4 Question Id : 32718720775 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) With reference to Medical Statistics, describe: Null hypothesis, Power of a study. [4]
- b) Is evidence provided by Randomized Controlled Trial (RCT) better than Case Report? Explain. [2]
- c) What is phase III trial? Give example of a Phase III trial in radiotherapy of breast cancer. [4]

Question Number : 5 Question Id : 32718720776 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

What is IMRT, IGRT, ART, SRS, SRT and write about their clinical relevance? [10]

Question Number : 6 Question Id : 32718720777 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 Photoelectric effect and its clinical implications. [6]
- b) Describe the principles and different types of wedge filters used in radiotherapy. [4]

Question Number : 7 Question Id : 32718720778 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 is Brachytherapy? Classify different types of brachytherapy. [2]
- b) Discuss the different dosimetric systems used in Intracavitary Brachytherapy in cancer of uterine cervix. [4]
- c) Describe the Manchester System in details. [4]

Question Number : 8 Question Id : 32718720779 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 components of Tumor Board approach in the management of malignant disease? [3]
- b) How is treatment policy achieved? [3]
- c) What is the basis of recommendation of a consensus treatment? [4]

Question Number : 9 Question Id : 32718720780 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 is Isodose Chart? [1]
- b) Draw the isodose curves and write briefly for Cobalt 60, 6 MV Photon Beam, 6MeV Electron Beam. [9]

Question Number : 10 Question Id : 32718720781 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 the principles of radiation protection. [4]
- b) How will you observe and apply them in Radiation Oncology department? [6]