

# National Board of Examinations

<b>Question Paper Name :</b>	DNB Nuclear Medicine Paper4
<b>Subject Name :</b>	DNB Nuclear Medicine Paper4
<b>Creation Date :</b>	2024-10-21 16:15:53
<b>Duration :</b>	180
<b>Total Marks :</b>	100
<b>Display Marks:</b>	No
<b>Share Answer Key With Delivery Engine :</b>	No
<b>Actual Answer Key :</b>	No

## DNB Nuclear Medicine Paper4

<b>Group Number :</b>	1
<b>Group Id :</b>	3271872768
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	180
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	100

## DNB Nuclear Medicine Paper4

<b>Section Id :</b>	3271872771
<b>Section Number :</b>	1
<b>Section type :</b>	Offline
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	10
<b>Number of Questions to be attempted :</b>	10
<b>Section Marks :</b>	100
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	3271872775
<b>Question Shuffling Allowed :</b>	No

**Question Number : 1 Question Id : 32718728964 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**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. Discuss in detail the radioactive waste disposal of nuclear medicine department in a tertiary care hospital. [10]

**Question Number : 2 Question Id : 32718728965 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

Discuss in brief the various ongoing trials involving Lu-177 PSMA radioligand therapy in patients with prostate cancer. [10]

**Question Number : 3 Question Id : 32718728966 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Oxygen Enhancement Ratio (OER) and Relative Biological Effectiveness (RBE). [5]
- b) Acute radiation syndrome. [5]

**Question Number : 4 Question Id : 32718728967 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Briefly describe the layout of a one bedded high dose therapy ward. [5]
- b) Transport Index. [5]

**Question Number : 5 Question Id : 32718728968 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Copper as theranostic agent. [5]
- b) F-18 Flurpiridaz. [5]

**Question Number : 6 Question Id : 32718728969 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

Discuss the clinical applications of FAPI and Exendin-4 in Nuclear Medicine. [7+3]

**Question Number : 7 Question Id : 32718728970 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

Discuss the principles and applications of PET/MRI in paediatric malignancies. [10]

**Question Number : 8 Question Id : 32718728971 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) F-18 Fluorestradiol imaging in breast cancer. [5]
- b) Total body PET/CT. [5]

**Question Number : 9 Question Id : 32718728972 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

Discuss the opportunities, challenges and responsibilities in using Artificial Intelligence and Machine Learning in nuclear medicine. [10]

**Question Number : 10 Question Id : 32718728973 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

Discuss the various nuclear medicine and non-nuclear medicine imaging in cardiac amyloidosis. [10]