

# 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>	2024-05-18 18:52:09
<b>Duration :</b>	180
<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>	3271871981
<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>Group Marks :</b>	100
<b>Is this Group for Examiner? :</b>	No
<b>Examiner permission :</b>	Cant View
<b>Show Progress Bar? :</b>	No

## DNB Nuclear Medicine Paper4

<b>Section Id :</b>	3271871984
<b>Section Number :</b>	1
<b>Section type :</b>	Offline

<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions to be attempted :</b>	10
<b>Section Marks :</b>	100
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	3271871988
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 1 Question Id : 32718719432 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. Describe AJCC 8th Edition of ATA guidelines in thyroid cancer and enumerate changes to 7th Edition of guidelines. [10]

**Question Number : 2 Question Id : 32718719433 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) 203-Pb/212-Pb based theranostic applications. [5]
- b) Lu-177 DOTATATE therapy. [5]

**Question Number : 3 Question Id : 32718719434 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) PROMISE Criteria. [5]
- b) F<sup>18</sup>-DCFPyL PET/CT. [5]

**Question Number : 4 Question Id : 32718719435 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) FDG PET/CT for evaluation of immunotherapy response in lung cancer patients. [5]
- b) Deauville Criteria in lymphoma. [5]

**Question Number : 5 Question Id : 32718719436 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 are currently used bifunctional chelates in various radiopharmaceutical labeling? Describe any one in details. [6+4]

**Question Number : 6 Question Id : 32718719437 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) PET/CT in giant cell arteritis. [5]
- b) Tc-99m-PYP imaging in diagnosing transthyretin cardiac amyloidosis. [5]

**Question Number : 7 Question Id : 32718719438 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 10**

PET/CT guided Biopsy: Patient preparation, indications, procedure, advantages over USG/CT guided biopsy and complications . [2+2+2+2+2]

**Question Number : 8 Question Id : 32718719439 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) Derive HVL and TVL equations. [5]
- b) Latest ICRP Recommendations on tissue weighting factors. [5]

**Question Number : 9 Question Id : 32718719440 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) Copper as theranostic agent. [5]
- b) What are the major changes in radiation weighting factors in latest version of ICRP? [5]

**Question Number : 10 Question Id : 32718719441 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 biological dosimetry? Describe the various factors affecting biological damage caused by radiation. [3+7]