

National Board of Examinations

Question Paper Name :	DNB Nuclear Medicine Paper1
Subject Name :	DNB Nuclear Medicine Paper1
Creation Date :	2021-08-25 17:08:48
Duration :	180
Total Marks :	100
Display Marks:	No

DNB Nuclear Medicine Paper1

Group Number :	1
Group Id :	327187269
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

DNB Nuclear Medicine Paper1

Section Id :	327187272
Section Number :	1
Section type :	Offline
Mandatory or Optional :	Mandatory

Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	327187276
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 3271871210 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the role of crystal thickness on intrinsic spatial resolution and sensitivity for ^{99m}Tc and ^{131}I . [10]

Question Number : 2 Question Id : 3271871211 Question Type : SUBJECTIVE

Correct Marks : 10

- a) Methods of curve fittings. [5]
- b) Explain Biexponential Curve fitting. [5]

Question Number : 3 Question Id : 3271871212 Question Type : SUBJECTIVE

Correct Marks : 10

Briefly describe the significance of:

- a) Slip ring technology. [5]
- b) SiPMT. [5]

Question Number : 4 Question Id : 3271871213 Question Type : SUBJECTIVE

Correct Marks : 10

If sample size is small which tests of significance are used? Explain any two tests in detail. [10]

Question Number : 5 Question Id : 3271871214 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the quality control methods of PET-CT System. [10]

Question Number : 6 Question Id : 3271871215 Question Type : SUBJECTIVE

Correct Marks : 10

Importance of Filters in Nuclear Medicine Imaging. [10]

Question Number : 7 Question Id : 3271871216 Question Type : SUBJECTIVE

Correct Marks : 10

a) Design of Case-control studies. [5]

b) Design of Randomized Control trials. [5]

Question Number : 8 Question Id : 3271871217 Question Type : SUBJECTIVE

Correct Marks : 10

Methods of Radiopharmaceutical dosimetry in tumor imaging. Discuss at least three radiopharmaceuticals. [10]

Question Number : 9 Question Id : 3271871218 Question Type : SUBJECTIVE

Correct Marks : 10

Write various modes of decay of radionuclides and describe principle of decay mode underlying the positron emission tomography. [10]

Question Number : 10 Question Id : 3271871219 Question Type : SUBJECTIVE

Correct Marks : 10

What is collimation in imaging? Classify various types of collimators and write the role of collimators in energy dependent imaging. [10]