# National Board of Examinations

Question Paper Name :	DNB Microbiology Paper4
Is this Group for Examiner? :	No

Enable Mark as Answered Mark for Review and	Vac
Clear Response :	Yes

## **Question Number : 1 Question Type : SUBJECTIVE**

Describe the principle of MALDI-TOF. State its advantages and limitations in a diagnositic microbiology laboratory. [4+3+3]

## **Question Number : 2 Question Type : SUBJECTIVE**

- Write briefly on
- a) Edible vaccines. [5]
- b) Inhaled antibiotics for Gram negative respiratory infections. [5]

## **Question Number : 3 Question Type : SUBJECTIVE**

What are the various categories of biomedical waste. Discuss the recent guidelines for disposal of biomedical waste. [5+5]

## **Question Number : 4 Question Type : SUBJECTIVE**

Enumerate the bio-warfare agents and methods of their detection. [5+5]

## **Question Number : 5 Question Type : SUBJECTIVE**

Classify antimicrobials agents based on PK-PD parameters. Discuss in detail about PK-PD monitoring of antimicrobials. [4+6]

## **Question Number : 6 Question Type : SUBJECTIVE**

Discuss the vaccines against Malaria. [10]

## **Question Number : 7 Question Type : SUBJECTIVE**

Describe the uses of next generation sequencing techniques in clinical microbiology. [10]

## **Question Number : 8 Question Type : SUBJECTIVE**

Discuss the principle and applications of microarrays in diagnostic microbiology. [5+5]

## **Question Number : 9 Question Type : SUBJECTIVE**

Define antimicrobial stewardship. Mention the components of antimicrobial stewardship program in hospital settings. What is empiric and prophylactic antibiotic therapy. [2+3+5]

## **Question Number : 10 Question Type : SUBJECTIVE**

What is nanotechnology? Discuss the applications of nanotechnology in clinical microbiology. [3+7]