# National Board of Examinations

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| **Question Paper Name :** | DNB Microbiology Paper4 |
| **Subject Name :** | DNB Microbiology Paper4 |
| **Creation Date :** | 2023-04-27 21:17:39 |
| **Duration :** | 180 |
| **Share Answer Key With Delivery Engine :** | No |
| **Actual Answer Key :** | No |

## DNB Microbiology Paper4

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|---|---|
| **Group Number :** | 1 |
| **Group Id :** | 327187817 |
| **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 Microbiology Paper4

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|---|---|
| **Section Id :** | 327187820 |
| **Section Number :** | 1 |
| **Section type :** | Offline |

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|---|---|
| **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 :** | 327187824 |
| **Question Shuffling Allowed :** | No |
| **Is Section Default? :** | null |

**Question Number : 1 Question Id : 3271877252 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 |

a) Vaccine delivery systems. [5]

b) Nanoparticles and its applications. [5]

**Question Number : 2 Question Id : 3271877253 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 10**

Describe the principle of Loop Mediated Isothermal Amplification (LAMP). Discuss its utility in the diagnosis of tuberculosis. [3+7]

**Question Number : 3 Question Id : 3271877254 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 10**

Define catheter related blood stream infection (CRBSI). Discuss the strategies for prevention of CRBSI. [3+7]

**Question Number : 4 Question Id : 3271877255 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 principle and working of automated blood culture system in Microbiology. [2+2]
b) What is direct sensitivity testing and what is its current status? [3+3]

**Question Number : 5 Question Id : 3271877256 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 10**

Define emerging and reemerging infections with examples. Describe the factors responsible for these infections. [5+5]

**Question Number : 6 Question Id : 3271877257 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 10**

Write briefly on invertebrate models used in microbial research. [10]

**Question Number : 7 Question Id : 3271877258 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 10**

Describe the various biocontainment levels practised in diagnostic microbiology. [10]

**Question Number : 8 Question Id : 3271877259 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) Monoclonal antibodies and its clinical use. [5]

b) Chemilunimiscence and its role in diagnostic microbiology. [5]

**Question Number : 9 Question Id : 3271877260 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 10**

Discuss the diagnostic dilemma and management of needle stick injury in Health Care Setting. [5+5]

**Question Number : 10 Question Id : 3271877261 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 CRISPR? Describe applications of CRISPR technology in clinical microbiology with examples. [3+7]