

# National Board of Examinations

**Question Paper Name :** DNB Microbiology Paper1

**Is this Group for Examiner? :** No

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

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

Define virulence and pathogenicity. Briefly write about the methods of determining virulence of a microorganism. [2+2+6]

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

What is sterilization? Discuss principle of plasma sterilizers. Write advantages and its uses. [2+3+5]

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

Enumerate the mechanisms of genetic variation in bacteria. Write a short note on mobile genetic elements and their role in antimicrobial resistance. [5+5]

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

Enumerate various nucleic acid amplification techniques used in diagnostic Microbiology. Discuss the principle and advantages of quantitative PCR. [4+2+4]

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

Define cytokines and chemokines. Discuss the pathogenesis of immune reconstitution inflammatory syndrome (IRIS). [(2+2)+6]

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

Enumerate laboratory acquired infections. Classify biological agents based on biohazard and discuss biosafety measures. [2+(4+4)]

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

What are the available beta lactamase inhibitor combinations? What is the use of such antibiotics? Discuss the method to detect colistin resistance in laboratory. [2+2+6]

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

Define human microbiome. Write in short about its composition and role in Microbiology. [2+(3+5)]

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

Define Healthcare associated infections. What are the components of standard precautions? Write a short note on reducing Central line associated blood stream infections (CLABSI) in an ICU. [2+3+5]

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

Define surveillance. Discuss role of Microbiologist in containment and surveillance of anti-microbial resistance. [3+7]