

# National Board of Examinations

<b>Question Paper Name :</b>	DNB Biochemistry Paper4
<b>Subject Name :</b>	DNB Biochemistry Paper4
<b>Creation Date :</b>	2021-08-27 20:12:41
<b>Duration :</b>	180
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## DNB Biochemistry Paper4

<b>Group Number :</b>	1
<b>Group Id :</b>	327187230
<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>Break time :</b>	0
<b>Group Marks :</b>	100
<b>Is this Group for Examiner? :</b>	No

## DNB Biochemistry Paper4

<b>Section Id :</b>	327187233
<b>Section Number :</b>	1
<b>Section type :</b>	Offline
<b>Mandatory or Optional :</b>	Mandatory

<b>Number of Questions :</b>	10
<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>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	327187237
<b>Question Shuffling Allowed :</b>	No

**Question Number : 1 Question Id : 327187820 Question Type : SUBJECTIVE**

**Correct Marks : 10**

Discuss the present and future prospects for therapy regarding stem cells and CAR-T cells. [5+5]

**Question Number : 2 Question Id : 327187821 Question Type : SUBJECTIVE**

**Correct Marks : 10**

Discuss the role of biosensors as diagnostic tool in Biochemistry. [10]

**Question Number : 3 Question Id : 327187822 Question Type : SUBJECTIVE**

**Correct Marks : 10**

Discuss briefly the principle and clinical application of:

- a) Ion Exchange Chromatography. [5]
- b) 2-dimensional gel Electrophoresis. [5]

**Question Number : 4 Question Id : 327187823 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) Enzyme Purification Techniques. [5]
- b) RIA Vs ELISA. [5]

**Question Number : 5 Question Id : 327187824 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) What are the various methods by which HbA1c is estimated and how well do they compare? [5]
- b) What does it mean by NGSP certified method? [2]
- c) What are the alternate lab tests for HbA1c that may provide information about shorter duration of control or of glycemic variability? [3]

**Question Number : 6 Question Id : 327187825 Question Type : SUBJECTIVE**

**Correct Marks : 10**

Discuss the principles of various molecular assays for detection of viral nucleic acids in SARS-CoV-2. [10]

**Question Number : 7 Question Id : 327187826 Question Type : SUBJECTIVE**

**Correct Marks : 10**

Discuss the analytical aspects in:

- a) Newborn Screening. [5]
- b) Therapeutic drug monitoring. [5]

**Question Number : 8 Question Id : 327187827 Question Type : SUBJECTIVE**

**Correct Marks : 10**

What is spectrophotometry? Discuss its role and application in clinical Biochemistry Laboratory. [4+6]

**Question Number : 9 Question Id : 327187828 Question Type : SUBJECTIVE**

**Correct Marks : 10**

Discuss the various principles involved in cytokine assays. [10]

**Question Number : 10 Question Id : 327187829 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) Enumerate the parameters in blood gas analysis. [2]
- b) Discuss the instrumentation and principle on which this analysis is based? [3+5]