National Board of Examinations

Question Paper Name :	DNB Biochemistry Paper1
Subject Name :	DNB Biochemistry Paper1
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Actual Answer Key :	No

DNB Biochemistry Paper1

Group Number :	1
Group Id :	3271871069
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
Examiner permission :	Cant View
Show Progress Bar? :	No

DNB Biochemistry Paper1

Section Id :	3271871072
Section Number :	1

Section type :	Offline	
Mandatory or Optional :	Mandatory	
Number of Questions to be attempted :	10	
Section Marks :	100	
Enable Mark as Answered Mark for Review and	Voc	
Clear Response :	165	
Maximum Instruction Time :	0	
Sub-Section Number :	1	
Sub-Section Id :	3271871076	
Question Shuffling Allowed :	No	

Question Number : 1 Question Id : 3271879742 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

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

1. a) Explain the importance of laboratory tests in clinical medicine.[4]

b) Explain what is meant by the sensitivity, specificity, and predictive value of a laboratory test. [4]

c) Mention the factors that result in abnormalities in levels of analytes in blood. [2]

Question Number : 2 Question Id : 3271879743 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) Describe the main tests that can be used to assess kidney, liver and thyroid function. [5]

b) Describe markers of cardiovascular risk and gastrointestinal function. [5]

Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) Define quality and total quality management. [4]

b) Compare internal quality control with external quality assessment. [2]

c) Describe the westgard rules to control data and determine what action must be taken to correct out-of-limit control values. [4]

Question Number : 4 Question Id : 3271879745 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) Describe the isoenzyme methods of analysis and discuss the migration of creatinine kinase and lactate dehydrogenase. [5]

- b) Describe the clinical significance of the following enzymes in brief: [5]
- i) y-Glutamyltransferase
- ii) 5' nucleotidase
- iii) Cholinesterases
- iv) Acid phosphatase
- v) Lipase

Question Number : 5 Question Id : 3271879746 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Spectrophotometry and colorimetry. [3]
- b) Atomic absorption and emission spectrometry. [4]
- c) PAGE and SDS-PAGE. [3]

Question Number : 6 Question Id : 3271879747 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Restriction fragment length polymorphism (RFLP). [3]
- b) Single stranded conformational polymorphism (SSCP)- basic principle and applications. [3] c) GC-MS. [4]

Question Number : 7 Question Id : 3271879748 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) State the significance of apolipoproteins in health and disease. [4]

b) Compare and contrast the five lipoproteins classes on chemical make up , functions and clinical significance. [6]

Question Number : 8 Question Id : 3271879749 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) Describe an underlying mechanism involved in regulatory enzyme activity in the following with a suitable example for each: [4+3]

- i) Allosteric regulation
- ii) Covalent modification
- iii) Feedback inhibition

b) Describe the hormones and enzymes that are considered tumor markers and the type of cancer each detect. [3]

Question Number : 9 Question Id : 3271879750 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Receiver and operating characteristic curve (ROC) and its implications. [4]
- b) ANOVA. [3]
- c) Correlation and regression coefficients in statistical analysis. [3]

Question Number : 10 Question Id : 3271879751 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) Describe in brief the national ethical guidelines of biomedical and health research including human participants.. [5]

b) Describe the types of clinical study designs. [5]