

National Board of Examinations

Question Paper Name : DNB Biochemistry Paper4
Subject Name : DNB Biochemistry Paper4
Duration : 182
Total Marks : 100
Display Marks: No

Maximum Instruction Time : 0
Is Section Default? : No

Question Number : 1 Question Id : 32718745189 Consider As Subjective : Yes

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
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Q. 5	Page 21-25	Q. 10	Page 46-50

1. Explain the principle and use of:

- Liquid Biopsy. [3]
- Digital PCR. [3]
- Electrochemiluminescence. [4]

Question Number : 2 Question Id : 32718745190 Consider As Subjective : Yes

Differentiate between:

- Turbidimetry and nephelometry. [5]
- Direct and indirect ion selective electrodes. [5]

Question Number : 3 Question Id : 32718745191 Consider As Subjective : Yes

Explain the principle, instrumentation, uses and precautions while using a single beam spectrophotometer. [10]

Question Number : 4 Question Id : 32718745192 Consider As Subjective : Yes

Explain the clinical significance of:

- a) CSF oligoclonal bands. [2.5]
- b) HER2 neu copy number in breast tumour. [2.5]
- c) Urinary microalbumin. [2.5]
- d) Immunoglobulin light chain assay. [2.5]

Question Number : 5 Question Id : 32718745193 Consider As Subjective : Yes

Explain the role of biochemistry lab in the diagnosis of myocardial infarction. [10]

Question Number : 6 Question Id : 32718745194 Consider As Subjective : Yes

- a) Isoelectric focusing. [5]
- b) Western blotting. [5]

Question Number : 7 Question Id : 32718745195 Consider As Subjective : Yes

Explain the principle and interpretation of triple and quadruple test during the antenatal period. [10]

Question Number : 8 Question Id : 32718745196 Consider As Subjective : Yes

Define point of care testing (POCT). Explain the principle, instrumentation and application of any such device. Add a note on the advantages and disadvantages of POCT over conventional methods. [2+5+3]

Question Number : 9 Question Id : 32718745197 Consider As Subjective : Yes

Classify stem cells. Explain the different harvesting techniques, applications and potential ethical issues. [10]

Question Number : 10 Question Id : 32718745198 Consider As Subjective : Yes

Explain in detail the biochemical approach to a patient of precocious puberty. [10]