

National Board of Examinations

Question Paper Name :	DrNB Medical Genetics Paper3
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Creation Date :	2025-01-19 21:59:38
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DrNB Medical Genetics Paper3

Group Number :	1
Group Id :	3271872843
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100

DrNB Medical Genetics Paper3

Section Id :	3271872846
Section Number :	1
Section type :	Offline
Mandatory or Optional :	Mandatory
Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	3271872850
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 32718729714 Question Type : SUBJECTIVE Consider As Subjective : Yes

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

1. Explain the process of next-generation sequencing and various analytic strategies for the detection of genomic rearrangements. [5+5]

Question Number : 2 Question Id : 32718729715 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Discuss in-utero enzyme replacement therapy and gene therapy - Enlist success and challenges for each. [5+5]

Question Number : 3 Question Id : 32718729716 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Liquid biopsy, its principle and its application. [4+2+4]

Question Number : 4 Question Id : 32718729717 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

- a) Explain various function prediction algorithms. [5]
- b) Discuss large scale genomic sequencing projects for rare diseases. [5]

Question Number : 5 Question Id : 32718729718 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

CAR-T cell therapy and its indication. Explain with examples [3.5+3+3.5]

Question Number : 6 Question Id : 32718729719 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

What is drug repurposing and its advantages? Explain with four examples. [2+2+6]

Question Number : 7 Question Id : 32718729720 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Preimplantation genetic diagnosis and its types. [5+5]

Question Number : 8 Question Id : 32718729721 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

- a) Explain National Policy for Rare disease (NPRD) of India. [6]
- b) Discuss associated challenges in implementation of the policy. [4]

Question Number : 9 Question Id : 32718729722 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

- a) Explain haemopoietic stem cell transplantation. [6]
- b) Write 4 absolute indications amongst rare inherited disorders. [4]

Question Number : 10 Question Id : 32718729723 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Explain about RNA therapeutics and its applications with examples. [5+5]