

National Board of Examinations

Question Paper Name :	DrNB Medical Genetics Paper1
Subject Name :	DrNB Medical Genetics Paper1
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DrNB Medical Genetics Paper1

Group Number :	1
Group Id :	327187476
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

DrNB Medical Genetics Paper1

Section Id :	327187479
Section Number :	1
Section type :	Offline
Mandatory or Optional :	Mandatory

Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	327187483
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 3271873281 Question Type : SUBJECTIVE

Correct Marks : 10

- a) Structure of gene, transcription and translation along with important issues in protein synthesis. [2+2+2]
- b) What are gene isoforms? [2]
- c) What are various databases to provide information about a gene? [2]

Question Number : 2 Question Id : 3271873282 Question Type : SUBJECTIVE

Correct Marks : 10

- a) Draw pedigrees showing decreased penetrance and variable expression. [3+3]
- b) Discuss the differences between the two giving examples. [4]

Question Number : 3 Question Id : 3271873283 Question Type : SUBJECTIVE

Correct Marks : 10

Lyonization and its clinical implications in various genetic disorders. [5+5]

Question Number : 4 Question Id : 3271873284 Question Type : SUBJECTIVE

Correct Marks : 10

Discuss copy number variations, their clinical implications and techniques to study them. [3+3+4]

Question Number : 5 Question Id : 3271873285 Question Type : SUBJECTIVE

Correct Marks : 10

- a) What is the difference between germ line mutations and somatic mutations in relation to cancer genetics. [6]
- b) Give examples to highlight the implications in management and genetic counseling. [4]

Question Number : 6 Question Id : 3271873286 Question Type : SUBJECTIVE

Correct Marks : 10

- a) Name triplet repeat disorders inherited in Autosomal dominant, Autosomal recessive and X-linked fashion. [3]
- b) Intra-familial variability in triplet repeat disorders. [3]
- c) Issues in genetic counselling with illustrative examples. [4]

Question Number : 7 Question Id : 3271873287 Question Type : SUBJECTIVE

Correct Marks : 10

- a) What are non-coding RNAs? [5]
- b) What are their functions and role in diseases? [5]

Question Number : 8 Question Id : 3271873288 Question Type : SUBJECTIVE

Correct Marks : 10

- a) Name 5 genes with multiple allelic disorders. [1+1+1+1+1]
- b) List 5 disorders for each gene. [1+1+1+1+1]

Question Number : 9 Question Id : 3271873289 Question Type : SUBJECTIVE

Correct Marks : 10

Induced pluripotent cells and their role in research and treatment. [5+5]

Question Number : 10 Question Id : 3271873290 Question Type : SUBJECTIVE

Correct Marks : 10

- a) Online Mendelian Inheritance in Man (OMIM). [5]
- b) List how to use OMIM in clinical practice. [2]

c) Explain the symbols used in OMIM. [3]