

National Board of Examinations

Question Paper Name : DrNB Medical Genetics Paper3
Subject Name : DrNB Medical Genetics Paper3
Duration : 180
Total Marks : 100
Display Marks: No

Maximum Instruction Time : 0

Question Number : 1 Question Id : 32718740564 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
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. Write briefly about the Genome India Project. [10]

Question Number : 2 Question Id : 32718740565 Consider As Subjective : Yes

Reproductive options for a lady with a mitochondrial DNA pathogenic variant. [10]

Question Number : 3 Question Id : 32718740566 Consider As Subjective : Yes

Write about the utility of cell free DNA testing in patient care. Enumerate the methodology, current clinical application and those that are recommended and not recommended in the guidelines for cell free fetal DNA. [4+6]

Question Number : 4 Question Id : 32718740567 Consider As Subjective : Yes

Describe the genetic modification and gene manipulation therapies for beta thalassemia and sickle cell disease. [10]

Question Number : 5 Question Id : 32718740568 Consider As Subjective : Yes

List the different OMICS technologies and mention how you can use them towards establishing a definite diagnosis for patients with rare disorders. [10]

Question Number : 6 Question Id : 32718740569 Consider As Subjective : Yes

Describe the disease modifying agents and newer therapies for treatment of Duchenne muscular dystrophy. Describe the indications, real life utility and your opinion as a policy maker to use such therapies from government funded projects. [10]

Question Number : 7 Question Id : 32718740570 Consider As Subjective : Yes

Describe the role of artificial intelligence in the practice of genetics. Give your opinion about the positive changes and caveats it is going to create. [10]

Question Number : 8 Question Id : 32718740571 Consider As Subjective : Yes

Newborn screening by NGS (Next-generation sequencing): Write the advantages and disadvantages of such an approach. Write about the current status in the world. What should be your opinion, as a policy maker, about the approach in present India? [3+3+2+2]

Question Number : 9 Question Id : 32718740572 Consider As Subjective : Yes

Write about diagnosis and management of neurofibromatosis type1. [10]

Question Number : 10 Question Id : 32718740573 Consider As Subjective : Yes

Write a short note on precision medicine- definition, benefits and examples. [2+3+5]