

NEET MOLECULAR BASIS OF INHERITANCE — DNA FINGERPRINTING
— PYQS

Max. Marks: 40

Questions: 10

Section A (MCQ) — 10 questions

Q.1 Arrange the following steps of DNA fingerprinting in a correct sequence.

- A. Isolation of DNA and its digestion by restriction endonucleases.
- B. Hybridisation using a labelled VNTR probe.
- C. Transferring of separated DNA fragments to synthetic membranes.
- D. Detection of hybridised DNA fragments by autoradiography.
- E. Separation of DNA fragments by electrophoresis.

Choose the correct answer from the options given below :

[NEET (UG) 2026]

- (1) A, E, B, C, D (2) A, D, B, E, C
(3) A, B, D, C, E (4) A, E, C, B, D

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full solution

Q.2 DNA polymorphism forms the basis of:

[NEET (UG) 2022]

- (1) Genetic mapping
- (2) DNA fingerprinting
- (3) Both genetic mapping and DNA fingerprinting
- (4) Translation

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Q.3 DNA fingerprinting involves identifying differences in some specific regions in DNA sequence, called as

[NEET (UG) 2021]

- (1) Polymorphic DNA (2) Satellite DNA
(3) Repetitive DNA (4) Single nucleotides

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Q.4 Which of the following is not required for any of the techniques of DNA fingerprinting available at present?

[NEET 2016 (Phase 1)]

- (1) DNA – DNA hybridization
- (2) Polymerase chain reaction
- (3) Zinc finger analysis
- (4) Restriction enzymes

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Q.5 Satellite DNA is important because it :

[AIPMT 2015]

- (1) Shows high degree of polymorphism in population and also the same degree of polymorphism in an individual, which is heritable from parents to children.
- (2) does not code for proteins and is same in all members of the population.
- (3) codes for enzymes needed for DNA replication.
- (4) codes for proteins needed in cell cycle.

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Q.6 An analysis of chromosomal DNA using the Southern hybridization technique does not use:

[AIPMT 2014]

- (1) Blotting (2) PCR
(3) Electrophoresis (4) Autoradiography

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Q.7 One of the most frequently used techniques in DNA fingerprinting is :-

[NEET 2013 (Karnataka)]

- (1) SSCP (2) SCAR (3) VNTR (4) AFLP

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Q.8 What is it that forms the basis of DNA Fingerprinting ?

[AIPMT 2012 (Mains)]

- (1) The relative proportions of purines and pyrimidines in DNA
- (2) The relative amount of DNA in the ridges and grooves of the fingerprints
- (3) The relative difference in the DNA occurrence in blood, skin and saliva
- (4) Satellite DNA occurring as highly repeated short DNA segments

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Q.9 PCR and Restriction Fragment Length Polymorphism are the methods for

[AIPMT 2012 (Prelims)]

- (1) Genetic transformation
- (2) Genetic fingerprinting
- (3) Study of enzymes
- (4) DNA sequencing

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Q.10 DNA fingerprinting refers to :- [AIPMT 2004]

- (1) Techniques used for molecular analysis of different specimens of DNA
- (2) Analysis of DNA samples using imprinting devices
- (3) Molecular analysis of profiles of DNA samples
- (4) Techniques used for identification of fingerprints of individuals

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ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	
Ans.	4	3	3	3	1	2	3	4	2	3	