

Q.P. Code: 35092

Duration : 2.5 Hrs.

Marks 75

N.B.:

1. All questions are compulsory.
2. All questions carry equal marks.
3. Draw neat and labelled diagrams wherever necessary.
4. Answer the questions in order.

Q. 1 Explain the following

- a) Primary cell lines and their characteristics

07

OR

- a) Application of animal cell culture

07

- b) Somatic cell fusion

08

OR

- b) Application of monoclonal antibodies

08

Q.2 Describe the following

- a) PCR

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OR

- a) Parenthood testing with reference to forensic science

07

- b) BLAST

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OR

- b) Primary and secondary database

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Q.3 Explain the following

- a) Human genome project

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OR

- a) Trisomy 18

07

- b) Karyotype preparation & banding techniques

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OR

- b) Turner's syndrome

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Q.4 Discuss the following

- a) Phenylketonuria

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OR

- a) G6PD

07

- b) Large scale DNA sequence comparison

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OR

- b) Albinism

08

Q.5 Write short notes on:

- a) Coverslip culture

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OR

- a) Flask culture

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- b) Nomenclature of restriction enzymes

04

OR

- b) Reverse transcription

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- c) Chromosome band numbering scheme

04

OR

- c) Ring chromosome

04

- d) Divergence in proteins

03

OR

- d) Molecular evolutionary clock

03