



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 199204

Roll No.

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B. Tech.

(SEM. II) THEORY EXAMINATION, 2014-15
INTRODUCTION TO BIOSCIENCES

Time : 3 Hours]

[Total Marks : 100

Note: Attempt all questions.

1 Attempt **any two** parts of the following:-

10x2=20

- (a) What is cytoplasm? Explain the role of various organelles present in cytoplasm of eukaryotes.
- (b) Make a comparison of prokaryotes and eukaryotes with at least ten points.
- (c) What is cellular respiration? Explain the Glycolysis.

2 Attempt any two parts of the following:-

10x2=20

- (a) What is central dogma? Explain in detail.
- (b) What are the types of DNA? Draw the most common DNA double helical structure along with characteristic features.
- (c) Write short note on genetic codes.

3 Attempt any two parts of the following:-
10x2=20

- (a) What is sexual reproduction? Explain with examples.
- (b) What is mitosis? Explain its various stages.
- (c) What do you mean by quality control of cell cycle? Explain with example.

4 Write short note on any TWO of the following:
10x2=20

- (a) Polymerase chain reaction
- (b) Genetically modified foods
- (c) Electrophoresis

5 Attempt **any two** parts of the following:-
10x2=20

- (a) What is menstrual cycle? Explain the various phases.
 - (b) What do you mean by reproductive health? Discuss the sexually transmitted diseases and their prevention.
 - (c) Describe the various contraception methods along with their advantages and disadvantages.
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