

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

Paper ID : 199114

Roll No.

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M. Tech.

(SEM. I) THEORY EXAMINATION, 2015-16

INTRODUCTION TO BIO-SCIENCE

[Time : 3 hours]

[Total Marks : 100]

1. Attempt **all** questions : (2x10=20)
- (a) Define the term cloning.
 - (b) Discuss about the process of lactation
 - (c) Define Fertilization.
 - (d) Enumerate the points of difference between DNA and RNA.
 - (e) What is kreb's cycle?
 - (f) Define Polymorphism.
 - (g) What are viruses ? How you will differentiate between viruses and viroids.

(h) What is cell cycle ?

(i) What is the role of nucleus in living cell.

(j) Why Mitosis is important ?

2. Attempt **any five** questions : (5x10=50)

(a) Explain factor affect the enzyme activity.

(b) What are the main phases of "cell-cycle"? Mention about main "check points". Why are check points important?

(c) With help of labelled diagram explain the process of mitosis in an animal cell.

(d) What are Stem Cells? Give the characteristics of the Embryonic and Adult Stem Cells.

(e) What is non-genetic RNA? Discuss various types of non-genetic RNA and their functions.

(f) Discuss in detail about "Human Genome Project" (HGP).

(g) What is "Fluid Mosaic Model" of membranes ? Explain with labelled diagram.

(h) Explain "Watson and Crick" Model of DNA.

3. Attempt **any two** questions : (2x15=30)

(a) Draw a well labelled diagram of an animal cell. Discuss the structure and functions of Golgi bodies.

(b) Write short notes on any two of the following: (i) Pregnancy and Embryonic Development (ii) Reproductive Health Problems (iii) MTP.

(c) What is Contraception? Discuss the different methods of birth control.

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