

Que: 2 Attempt the following questions . (Any 10)

(20)

- 1) Draw the structure of dATP and GTP.
- 2) Differentiate between mRNA and rRNA.
- 3) Mention the role of:
 - a) SSB protein
 - b) Primase.
- 4) Give the contribution of :
 - a) Howard Temin
 - b) Norman Pace
- 5) Define:
 - a) Promoter
 - b) Operon
- 6) What is primosome?
- 7) Write the key sequences on OriC of *E.coli* chromosome.
- 8) What are weak promoters ? Cite an example of it.
- 9) Mention any two types of post translational modification.
- 10) Give the contribution of Nirenberg..
- 11) Write the role of :
 - a) Transformylase
 - b) Amino acyl tRNA synthetase
- 12) Describe the contribution of Avery ,Macleod and McCarty.

Que: 3 (A) Describe organization of eukaryotic DNA.

(06)

(B) Explain Watson & Crick's model of DNA

(04)

OR

Que: 3 (A) Discuss the experiments conducted by Griffith ,Harshey and Chase.

(06)

(B) Describe the cloverleaf structure of tRNA and mention its significance .

(04)

Que: 4 Explain initiation and elongation of DNA replication in *E.coli*.

(10)

OR

Que: 4 (A) What were the proposed modes of DNA replication ? Explain an experiment that proves the actual mode of DNA replication.

(07)

(B) Explain rolling circle model of DNA synthesis.

(03)

Que: 5 Discuss the mechanism of transcription in *E.coli*.

(10)

OR

Que : 5 What are post transcriptional modifications? Describe RNA splicing in detail.

(10)

Que: 6 Describe initiation & elongation of protein synthesis in prokaryotes.

(10)

OR

Que: 6 Discuss the salient features of genetic code.

(10)

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