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D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1
SEMESTER EXAMINATIONS
APRIL – 2018
MOLECULAR BIOLOGY

15CPBC2C

Time : 3 Hrs

Max. Marks : 75

SECTION-A (5 x 6 = 30)

Answer ALL questions.

1. (a) What is semiconservative replication? Explain.
(Or)
(b) Describe the Meselson and Stahl experiment.
2. (a) What are consensus sequences?
(Or)
(b) Explain the significance of RNA splicing.
3. (a) Draw the table of codon dictionary.
(Or)
(b) What is Shine-Dalgarno sequence? Explain.
4. (a) What is the role of heat shock proteins in gene expression?
(Or)
(b) Explain the process of glycosylation in central dogma.
5. (a) Write on the mechanism of mutation and its types.
(Or)
(b) List the various inhibitors of protein synthesis.

SECTION-B (3 x 15 = 45)

Answer any THREE of the following questions.

6. Explain the mechanism of replication in prokaryotes.
7. Write on the post transcriptional modifications of mRNA.
8. Detail the structure of tRNA and its significance in protein synthesis.
9. How to regulate gene expression by using trp-operon?
10. Explain the major repair mechanisms involved in DNA repair.

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