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D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE – 1
SEMESTER EXAMINATIONS
JUNE – 2022
GENETICS

21CPZ02A

Time: 3 Hrs

Max. Marks: 75

SECTION – A (5X 6 =30)

Answer ALL the questions.

1. (a) Describe the molecular structure of DNA.
(Or)
(b) Explain conjugation and transduction.
2. (a) Discuss the role of enzymes in regulation of gene action.
(Or)
(b) Describe any two inborn errors of carbohydrate metabolism.
3. (a) Explain genomic imprinting.
(Or)
(b) Give an account on the methods of pedigree analysis.
4. (a) Explain the mechanism of chromosomal breakage.
(Or)
(b) Write notes on sex linked genes.
5. (a) Describe restrictive enzymes in genetic engineering.
(Or)
(b) Explain the applications of genetics in criminology.

SECTION – B (3X 15 =45)

Answer any THREE of the following questions.

6. Give an account on chromosomal mapping in Prokaryotes.
7. Briefly explain *LAC Operon* system and regulation of gene action.
8. What is a chromosomal variation? Describe human syndromes.
9. Discuss Hardy Weinberg Law and factors affecting the equilibrium.
10. Explain recombinant DNA techniques and its applications.

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