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D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1

SEMESTER EXAMINATIONS

NOVEMBER - 2016

16PCS1C

FORMAL LANGUAGES AND AUTOMATA THEORY

Time: 3 Hrs

Max.Marks : 75

SECTION-A (5x 6 =30)

Answer ALL the questions.

1. (a) What are the fundamentals of Automata theory?
(Or)
(b) What are the relations and functions used in Automata theory?
2. (a) Write short notes on Ground rule and Protocols used in Finite Automata.
(Or)
(b) Write short notes on Finite Automata and Sequential Circuits.
3. (a) How will you relate Regular Language with Finite Automata?
(Or)
(b) How will you construct a Parse Tree?
4. (a) Explain the informal definition of Pushdown Automata.
(Or)
(b) Describe the Languages of PDA.
5. (a) What is the basic structure of Turing Machine?
(Or)
(b) Describe the Notation for Turing Machine.

SECTION-B (3x15 =45)

Answer any THREE of the following questions.

6. Explain in detail about methods of proof used in Automata theory.
7. Explain about Deterministic and Nondeterministic finite Automata in detail.
8. Explain about Context Free Grammar and its applications.
9. Explain about the equivalence of PDA's and CFG's.
10. Write note on Instantaneous Description for Turing Machines.

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