

## Mid Sem Question Paper

Name of the program:	B.tech	Semester:	III
Course/Subject Name:	Formal Languages and Automata Theory	Course/Subject Code:	CSE11005
Maximum Marks:	50	Time Duration:	3 Hrs
Total No. of Questions:	18	Total No of Pages:	4

### Mid sem question paper

#### GROUP A(1 X 5)

- 1> The output of an EX-NOR gate is 1. Which input combination is correct? a)  $A = 1, B = 0$  b)  $A = 0, B = 1$  c)  $A = 0, B = 0$  d)  $A = 1, B = 1$
- 2> A variable on its own or in its complemented form is known as: a) Product Term b) Literal c) Sum Term d) Word
- 3> 3 bits full adder contains a) 3 combinational inputs b) 4 combinational inputs c) 6 combinational inputs d) 8 combinational inputs
- 4> The output of an EX-NOR gate is 1. Which input combination is correct? a)  $A = 1, B = 0$  b)  $A = 0, B = 1$  c)  $A = 0, B = 0$  d)  $A = 1, B = 1$
- 5> The expression for Absorption law is given by: a)  $A + AB = A$  b)  $A + AB = B$  c)  $AB + AA' = A$  d)  $A + B = B + A$

#### GROUP B(3 X 5)

- 6> Explain the process of converting SOP to SSOP and POS to SPOS.
- 7> Classify the logic families based on its operation
- 8> Explain the major properties of Boolean algebra
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