Code No. 3205

FACULTY OF SCIENCE
B.Sc. V – Semester (CBCS) Examination, November / December 2018
Subject : ELECTRONICS (Digital Electronics)
Paper – V (DSC)

Time : 3 hours

Max. Marks : 60

Part – A (5 X 3 = 15 Marks)
(Short Answer Type)

Note : Answer any Five of the following questions.

1. Convert decimal number 72905 to hexadecimal number.
2. Draw a circuit diagram of XOR gate and explain its working with truth table.
3. Show that $(A + B)(\overline{A} + \overline{B}) = A\overline{B} + \overline{A}B$ using Boolean Algebra.
4. Explain sum of products (SOP).
5. Explain working of JK flip flop.
6. Explain Johnson Counter.
7. Explain 4-bit Asynchronous counter.
8. Distinguish between PROM and EPROM.

Part – B (45 Marks)
(Essay Answer Type)

Note : Answer all from the following questions.

9. a) Explain 1's compliment and 2's compliment method for subtraction.   11
   OR
   b) Draw the circuit diagram of parallel binary adder consisting of full adders and explain its operation.

10. a) State and explain the basic laws in Boolean algebra.   11
    OR
    b) Draw the circuit diagram of multiplexer and explain its operation.

11. a) Describe the working of Master Slave JK flip flop with neat circuit diagram.   11
    OR
    b) Discuss the various shift registers.

12. a) Describe the organization working of ROM.   12
    OR
    b) Explain working of decade counter with truth table and timing diagrams.

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