VIT

Vellore Institute of Technology

CAT-2 Exam of Fall Semester- 2019-20

Programme Name & Branch: B.Tech.
Course Code & Name: MEE1037, Automotive Electronics
Class Number: VL2019201002022 Slot: E1+TE1
Faulty Name: Dr. Ravi Verma

Exam Duration: 90 Mins.
Maximum Marks: 50

General instruction(s): *Missing data, if any, may be suitable assumed.*

Answer all the questions

(5 x 10 = 50 Marks)

1. Design the circuit diagram of full adder and full subtractor.

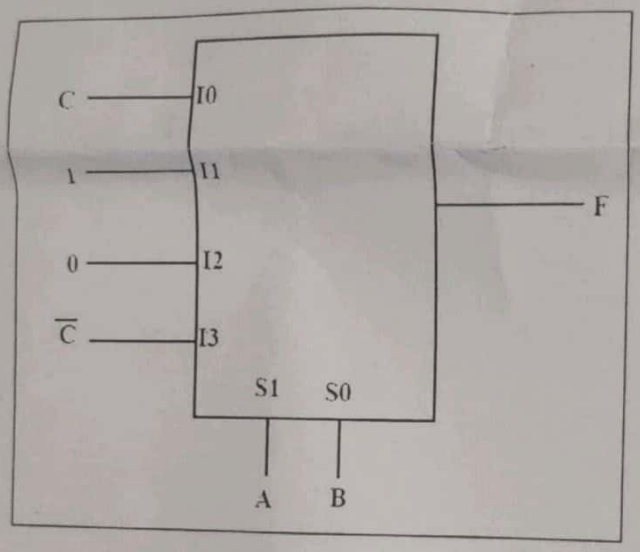
$(A \oplus B)\,C$

$AB + BC + AC$

$\bar{A}B + BC + \bar{A}C$

2. Explain about the different types on interrupts in microprocessor?

3. Find the minimize expression for the multiplexer shown below?



$B\bar{C} + \bar{A}C$

4. Minimize the expression using K-Map,

$F(A, B, C, D) = \sum m\,(0, 1, 4, 5, 8, 9, 13, 15)$.

$\bar{A}\bar{C} + \bar{B}\bar{C} + ABD$

5. Design the circuit diagram and write truth table, excitation table, characteristics equation of SR flip flop, JK flip flop, D flip flop and T flip flop.

SR JK