S.D.E.

B.C.A. (2004 Course Sem- II : WINTER - 2018

SUBJECT : DIGITAL COMPUTER DESIGN & COMPUTER ORGANISATION

Day : Wednesday
Date : 28/11/2018

W-2018-4506

Time : 10.00 AM TO 1.00 PM
Max. Marks : 80

N.B.

1) Attempt any **FIVE** questions from Section – I and any **TWO** questions from Section – II.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION – I

Q.1 Explain different addressing modes with example. **(10)**

Q.2 With neat circuit diagram explain 4:1 multiplexer. **(10)**

Q.3 Differentiate between : **(10)**
a) Assembly Language and Machine Language
b) RISC and CISC

Q.4 Explain action of shift register in detail. **(10)**

Q.5 Describe Flip Flop in details: **(10)**
a) SR flip flop
b) JK flip flop

Q.6 Explain the action of binary counter in detail. **(10)**

Q.7 Write short notes on any **TWO:** **(10)**
a) Micro operation
b) Combinational circuit
c) Sequential circuit

SECTION – II

Q.8 Plot the following Boolean equation function on: **(15)**
k- map
$F = \sum(0,3,4,5,6,8,10,12)$

Q.9 Define Interrupt. Discuss various types of Interrupts with their impact on instruction execution. **(15)**

Q.10 Explain different types of logic gates with their Truth Table and symbol. **(15)**

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