



**VI Semester B.Voc. (IT) Examination, September 2020**  
**(CBCS (F + R) 2018-19 and Onwards)**  
**INFORMATION TECHNOLOGY**  
**Paper – 602 : Computer Architecture**

Time : 3 Hours

Max. Marks : 70

*Instruction : Answer all the Sections.*

## SECTION – A

(10×2=20)

I. Answer any ten.

- 1) What is Flip Flop ?
- 2) Write the BCD equivalent of 154.23.
- 3) What is PC ?
- 4) What is INPR ?
- 5) What is ISZ ?
- 6) What is Assembler ?
- 7) What is CPU ? Write its block diagram.
- 8) What is PUSH and POP operations ?
- 9) What is Internal Interrupts ?
- 10) What is CISC ?
- 11) What is DMA ?
- 12) Define Polling.

## SECTION – B

(5×10=50)

II. Answer any 5 of the following.

- |   |   |
|---|---|
| 13) a) Explain any two logical gates with their graphical symbol, algebraic function and truth table. | 5 |
| b) $F(A, B, C) = \Sigma (0, 2, 4, 5, 6)$ solve using K-map.   | 5 |
| 14) a) Explain Half-Adder.  | 5 |
| b) Explain SR-Flip Flop.  | 5 |
| 15) a) Explain parallel load register.  | 5 |
| b) Explain RAM.   | 5 |

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- 16) a) Explain briefly about 9's and 10's complement. 5
- b) What is error detection codes ? Explain. 5
- 17) a) Explain basic hypothetical computer. 5
- b) Explain : 5
  - 1) ADD
  - 2) AND
  - 3) LDA
  - 4) STA
  - 5) BUN
- 18) a) Explain general register organization in ALU with suitable block diagram. 5
- b) List and explain any four addressing modes. 5
- 19) a) What are the modes of transfer ? Explain. 5
- b) Explain virtual memory. 5
- 20) a) What is a sub-routine ? Explain call and return instructions. 5
- b) Explain parity generator, parity checker. 5

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