

Total No. of printed pages = 3

IT-301/IT/3rd Sem/2017/M

## INFORMATION TECHNOLOGY

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer any *seven* from the following questions.

1. What do you mean by data compression ? Explain about lossy and lossless compression technique with proper example. 2+8=10
2. (a) State Huffman coding. Find out binary code, code length and total length from the following : 2+2+1+1=6

Symbol	Frequency
A	32
B	18
C	10
D	3
E	3

[Turn over

(b) Convert the following :  $2+2=4$

(i) The binary number 10110001100 to decimal.

(ii) Hexadecimal number BC5 to binary.

3. List and explain the different types of computer.

10

4. What do you mean by generations of computer ? Explain the characteristics of 1st, 2nd and 3rd generation.

$1+9=10$

5. Discuss with the help of diagram, the different functional units of computer.

10

6. What is computer network ? Explain about LAN, MAN and WAN.

$2+8=10$

7. Differentiate between the following :

$5+5=10$

(i) WWW

(ii) Network topology

8. What is RAM ? Explain about the different types of RAM.

$4+6=10$

9. Define the following :

5×2=10

- (a) Compiler
- (b) Web page
- (c) HTML
- (d) Flowchart
- (e) Search engine.

108/IT-301/IT

(3)

40(G)