

Total No. of printed pages = 3

It-301/IT/3rd Sem/2015/M

INFORMATION TECHNOLOGY

Full Marks – 70

Pass Marks – 28

Time – Three hours

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

Question Nos. 1 and 2 are compulsory. Answer any *five* from the rest.

1. (a) Fill in the blanks : 5

(i) The speed of a computer is calculated in _____.

(ii) JPEG uses _____ compression technique whereas PNG uses _____ compression technique.

(iii) World Wide Web uses its own protocol called _____.

[Turn over

(iv) MMS stands for _____ and SMS stands for _____.

(v) The development of computer can be divided into _____ generations.

(b) Write the full form of the following : 5

(i) BASIC

(ii) IC

(iii) VLSI

(iv) FORTRAN

(v) GIGO

2. (a) Convert the following numbers to equivalent decimal numbers : $2+3=5$

(i) 10110001100

(ii) $2A3B_{16}$

(b) Convert the following decimal numbers to binary equivalent : $3+2=5$

(i) 435_{10}

(ii) 135_{10}

3. Discuss about the 1st and 2nd generation of computers along with their key characteristics.

$5+5=10$

4. List the main characteristic features of high-level language. 10
5. Discuss about LAN, MAN and WAN. Write one example for each. 10
6. Describe some general uses of Internet. What is an electronic mail ? Explain. $5+5=10$
7. Differentiate among simplex, half-duplex and full-duplex modes of data transmission. 10
8. Differentiate between the following : (any two)
- (i) RAM and ROM
 - (ii) Downloading and Uploading
 - (iii) Encoding and Decoding $5 \times 2 = 10$
9. Define the following :
- (i) Assembler
 - (ii) Browser
 - (iii) The World Wide Web
 - (iv) Operating system
 - (v) Flow chart. $5 \times 2 = 10$