NEW

2015

BCA

1st Semester Examination

COMPUTER FUNDAMENTALS AND APPLICATION SOFTWARE

PAPER—1101

Full Marks : 70

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group — A

Attempt *Q. No. 1* and any *two* from the rest.

1. (a) Define virtual memory.   2

   (b) Write down the difference between assembly language and high level language.   4

   (c) What is ALU and why it is used ?   4

   (d) What is Main Frame Computer ?   1

2. (a) What is Algorithm and why it is used ? 4

(b) Convert the following number :

$(362 \cdot 14)_8 = (?)_{10}$ and $(7ACD)_{16} = (?)_{10}$ 4

(c) Define De-Morgans Law. 2

(d) What is Hardware of a Computer System ? 2

3. (a) Write the difference between optical mouse and mechanical mouse. 3

(b) Explain the printing mechanism of laser printer. 4

(c) What is the storage capacity of an unformatted 5.25 inch optical dirk having 330000 sectors each of 2352 bytes ? 3

(d) Define bus. What is bus width ? 2

4. (a) Explain now an output is displayed using CRT monitor with the help of a neat diagram. 6

(b) Explain the main functions performed of the system software of a computer system. 3

(c) Write a short note on 'Digitizer'. 3

5. (a) What is Flow chart and write down the elements of Flow chart. 1+3

(b) Write some advantage of Flow chart. 3

(Continued)

(c) Draw a Flowchart for Greatest Common divisior (GCD) of two numbers.   3

(d) What is CPU of a computer system ?   2

Group — B

Attempt *Q. No.* 6 and any *two* from the rest.

6. (a) Write the read-write operation of a memory unit.   4

(b) Write the difference between bit rate and baud rate.   2

(c) What is an optical fiber ? How is it used for data communications ? What are its advantages ?   5

7. (a) What is LAN ?   2

(b) Write down the difference between LAN and WAN.   4

(c) Explain FTP with its Benefit.   4

(d) Write down benefit of E-mail.   2

8. (a) Explain ISO/OSI Reference Model with suitable Block diagram.   7

(b) Write down the differences between primary and secondary memory.   3

(c) What is HTML ?   2

9. (a) What is Cache memory ? Explain the benefit of Cache memory. 5

(b) Explain Frequency Division Multiplexing. 4

(c) What is E-Commerce ? 2

(d) What is Modem ? 1

10. Write short note on any *three* : 3×4

(i) FTP ;

(ii) www ;

(iii) Magnetic Tape ;

(iv) WAN ;

(v) Network Topology.

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TB—