BCA(I) — COM/ I /
1 / X / H

2010

Time : 3 hours

Full Marks : 80

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

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group – A

(Objective Type Questions)

Answer **all** questions.

1. Choose the correct answer of the following :

                                    2×10 = 20

    (a) Multipe choice examination answer sheets
         can be evaluated automatically by :

         (i)   OMR

         (ii) OCR

SB – 17/3   (Turn over)

(iii) MICR

(iv) Scanner

(b) The part of an operating system, which permanently resides in main memory, is :

(i) Job scheduling module

(ii) Kernel

(iii) Translator

(iv) None of the above

(c) Find the odd one out :

(i) Control Unit

(ii) Arithmetic Logic Unit

(iii) Registers

(iv) Printer

(d) The resolution of a printer is measured in :

(i) Megabits

(ii) Hz

(iii) Dots per inch (DPI)

(iv) Inches (diagonal)

(e) Which one is an e-mail address ?

(i) http://vianet.com/index.htm

(ii) D:\\Email\Standard

(iii) joesmart@billme.com

(iv) Chaminade.org/teachers/mail-addresses

(f) Octal equivalent of the pure binary bits $(1001101)_2$ is :

(i) 464

(ii) 715

(iii) 125

(iv) 115

(g) Functions of operating system are :

(i) Processor Management

(ii) Memory Management

(iii) Input / Output Management

(iv) All of the above

(h) The printers that produce the output by pressing a print element and an inked ribbon against the face of a continuous paper form is called :

(i) Impact printer

(ii) Non-impact printer

(iii) Scanning printers

(iv) None of the above

(i) One of the following is not an Impact Printer :

    (i) Daisy-Wheel

    (ii) Dot-Matrix Printer

    (iii) Chain Printer

    (iv) Laser

(j) Study of physical connections and arrangments of computer network is known as :

    (i) Protocol

    (ii) Topology

    (iii) Both (i) and (ii)

    (iv) None of the above

Group – B

(Long-answer Type Questions)

Answer any **four** questions :

2. (a) Draw a block diagram showing components of a computer. Explain the functions of CPU in detail.   5

(b) Illustrate the difference between primary and secondary storage. 5

(c) List any four devices which can be used as Input and Output devices. 5

3. Differentiate between the following : 5×3 = 15

(a) Time Sharing and Real time Systems

(b) Multiprogramming and Multitasking

(c) Memory Management and Device Management

4. (a) What is spooling ? Do you think that advanced personal computers will have spooling as a standard feature in the future ?

(b) What is the difference between impact and non impact printer ?

(c) Explain the principle and working of laser printers. 5×3 = 15

5. (a) What is networking ? Give the name of the essential hardware and software used for networking.

(b) With the help of a diagram, explain the various network topologies present in the computer network.

(c) What is modulation ? List its type. 5×3 = 15

6. (a) Explain a typical structure of a URL.

(b) List the various services provided by the internet.

(c) What is an IRC ?   5×3 = 15

7. (a) Why are input and output devices necessary for a computer system ?

(b) Explain in your own words the advantages and impact of IT in our lives.

(c) Describe the classification of programming languages.   5×3 = 15

8. (a) What do you understand by software ? Discuss its types.

(b) Explain the difference between hardware and software with their definition and uses.

(c) Give the difference between data and information with their definition.   5×3 = 15

9. (a) What is an Operating System ? Discuss its application for a computer system ?

   (b) Explain Management Information System (MIS) and Decision Support System (DSS).

   (c) Convert the following :

       (i) $(1111011)_2 = (?)10$

       (ii) $(501)_8 = (?)_{16}$

       (iii) $(1B4C)_{16} = (?)_8$

       (iv) $(514827)_{10} = (?)_2$

       (v) $(7F3A1)_{16} = (?)_{10}$ 15

10. (a) What is multimedia ? Discuss the role of multimedia in education, training and research.

    (b) What is multilingual application ? How they are helpful for e-commerce ?

    (c) List down the various features of word processing application software. 5×3 = 15

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