2016

(1st Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–103

(Introduction to Information Technology)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* Elaborate the various computer generations along with the characteristics of the computers of each generation. 10

Or

(b) Draw and explain a block diagram of the basic organization of a computer system with their functions. 6

(c) What is DVD-ROM? What are the differences between CD-ROM and DVD-ROM? 4

2. *(a)* Explain the following programming languages : 6

   (i) PASCAL

   (ii) JAVA

   (iii) C++

   (b) Explain the importance of system software for a computer system. 4

   Or

   (c) What is assembly language? Explain the advantages and disadvantages. 5

   (d) What are the characteristics that desirable for a good programming language? 5

3. *(a)* What is virtual memory? How is it useful? 4

   (b) Explain the various functions normally *performed by an operating system.* 6

   Or

   (c) Write short notes on : 4

   (i) Batch processing

   (ii) File naming

   (d) What is a process in a computer system? What are the main objectives of the process management module of an operating system? 6

4. *(a)* What do you mean by network topology? Describe four commonly used network topologies with their advantages and disadvantages. 10

Or

(b) Explain the mode of data transmission suitable for communication between a terminal and a computer. 5

(c) What is multiplexer? Explain its functions with the help of diagram. 5

5. *(a)* What is HTTP and how does it work? 5

(b) Write short notes on : 5

(i) HTML

(ii) URL

Or

(c) Explain the basic e-mail ethics. 7

(d) Why does an organization need an intranet? 3

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2016

(1st Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA-103

(Introduction to Information Technology)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

I. Tick (✓) the correct answer from the following in the brackets provided : 1×10=10

1. _____ computers aim to solve highly complex problems which require reasoning and intelligence.

   (a) Fifth-generation ( )

   (b) Third-generation ( )

   (c) Fourth-generation ( )

   (d) Second-generation ( )

2. Which is the component that allows the computer permanently return large amount of data?

   (a) I/O device ( )

   (b) CPU ( )

   (c) Mass storage device ( )

   (d) SIM card ( )

3. The first high-level language was

   (a) COBOL ( )

   (b) PASCAL ( )

   (c) FORTRAN ( )

   (d) C ( )

4. _____ uses mnemonic codes that are easier to learn and remember than machine language numeric codes.

   (a) Machine language ( )

   (b) High-level language ( )

   (c) Low-level language ( )

   (d) Assembly language ( )

5. Which is the OS for IBM PS/2 computers?

(a) OS/2 ( )

(b) OB/2 ( )

(c) CICS/2 ( )

(d) DOS/2 ( )

6. Which of the following is not the real-time OS?

(a) BLMX ( )

(b) CCP ( )

(c) CTOS ( )

(d) DOS ( )

7. Which is the oldest and most common transmission line?

(a) Coaxial cable ( )

(b) Twisted pair wire ( )

(c) Fibreoptic cable ( )

(d) All of the above ( )

8. How many elements can a half-inch diameter fibreoptic cable carry?

   (a) 5500 ( )

   (b) 500 ( )

   (c) 55000 ( )

   (d) 500000 ( )

9. :-) stands for

   (a) sad ( )

   (b) happy ( )

   (c) angry ( )

   (d) confused ( )

10. Which of the following is used to access page to the World Wide Web?

   (a) Web browser ( )

   (b) Internet ( )

   (c) Web page ( )

   (d) Web directories ( )

II. State whether the following statements are *True* (*T*) or *False* (*F*) by putting a Tick (✓) mark : 1×5=5

1. Two machines in the Internet can have the same IP address.

(*T* / *F*)

2. Many operating systems are designed as a collection of program modules.

(*T* / *F*)

3. A digital computer operates on binary digits 0 and 1.

(*T* / *F*)

4. Assembly language can be automatically converted into machine language.

(*T* / *F*)

5. Tree topologies do not allow for the expansion of an existing network.

(*T* / *F*)

SECTION—II

(*Marks* : 10)

III. Answer the following questions : 2×5=10

1. What are the applications of supercomputers?

2. What is meant by coding a program?

3. What are the main features of LAN?

4. Differentiate between domain name and IP address.

5. Is Windows XP multitasking? Briefly explain.

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