

2. Software which is an integrated set of programs that controls the resources memory of a computer system and provides user interface is called

- (a) operating system ()
- (b) multiprogramming ()
- (c) threat ()
- (d) deadlock ()

3. The first electronic computer which was developed in 1943-1946 is called

- (a) the mark-I ()
- (b) EDVAC ()
- (c) EDSAC ()
- (d) UNIVAC I ()

4. If the storage unit can retain its data even when a power is turn off, this unit is called

- (a) volatile ()
- (b) non-volatile ()
- (c) EPROM ()
- (d) renewable unit ()

5. The device that accepts data from a computer and translates them into a form suitable for use by outside world is called
- (a) input device ()
 - (b) output device ()
 - (c) translator ()
 - (d) integrator ()
6. A design which composed of patterns of line, points, circles, arcs and other geometric shapes that can be represented by geometric axis of X and Y is called
- (a) raster graph ()
 - (b) vector graph ()
 - (c) line graph ()
 - (d) pie graph ()
7. The data which is currently being executed by the CPU is called
- (a) time-sharing ()
 - (b) process ()
 - (c) file ()
 - (d) None of the above ()

8. The printer that produces very high quality output character by using very tiny ink particles is called
- (a) drum printer ()
 - (b) laser printer ()
 - (c) dot-matrix printer ()
 - (d) ink-jet printer ()
9. The most popular sequential access which uses plastic ribbon of $\frac{1}{2}$ inch or $\frac{1}{4}$ inch with recording material coated on them is called
- (a) magnetic disk ()
 - (b) magnetic tape ()
 - (c) optical disk ()
 - (d) flash memory ()
10. The software tool that takes multiple object program file and fits them together in executable form is called
- (a) compiler ()
 - (b) linker ()
 - (c) interpreter ()
 - (d) None of the above ()

(5)

II. State whether True (T) or False (F) by putting a tick (✓) mark : 1×5=5

1. RPG programming is mainly used in application development.

(T / F)

2. Point and draw device is input device used to point and select graphic icon display on the screen.

(T / F)

3. Fractional number is formed in the same way as in decimal number system.

(T / F)

4. Storage unit of a computer system holds data and instruction to be processed.

(T / F)

5. A microprocessor does not contain all the circuits needed for arithmetic logic and control function.

(T / F)

SECTION—II

(Marks : 10)

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

1. How does an IC help in reducing the size of a computer?

(7)

2. Explain any two types of optical disk.

10

3. What is an input device? Name some commonly used input devices.

4. What is an assembler?

(9)

5. Explain the difference between landscape and portrait mode of printing.

2014

(1st Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA-103

(Computer Fundamentals and PC Software)

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(Marks : 15)

I. Put a Tick (✓) mark against the correct answer from the following in the brackets provided :

1×10=10

1. The number of character transmitted per second from the tape to primary storage is called

(a) data transfer rate ()

(b) jitter ()

(c) offline storage ()

(d) None of the above ()

I/BCA/103 (R)

2014

(1st Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA-103

(Revised)

(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) Write and explain different types of Read-Only Memory. 5
- (b) Explain the main components of a computer system by giving a detailed diagram. 5
- Or*
- (c) Write five characteristics of a Magnetic Hard Disk. 5
- (d) What is a Distributed Computer System? Also list the hierarchy of storage devices. 5

G15—280/191a

(Turn Over)

2. (a) Define a flowchart by giving a suitable example. 5
- (b) Distinguish between Hardware and Software. 5
- Or*
- (c) Describe different types of Software by giving a suitable example. 5
- (d) What is an algorithm? Give example. 5
3. (a) What is an Operating System? Write the main functions of an Operating System. 5
- (b) Explain different types of Viruses. 5
- Or*
- (c) What is an Anti-virus? Define its characteristics. 5
- (d) What is real-time system? How are they differing from time-sharing system? 5
4. (a) What are the basic elements of communication system? Explain by giving a suitable diagram. 5
- (b) Describe different types of Computer Network. 5
- Or*
- (c) Explain various types of Network Topologies by giving a suitable diagram. 5
- (b) Explain different layers in a TCP/IP model. 5

(3)

5. (a) What is Domain Name? Differentiate between Intranet and Extranet. 5
- (b) What is an email? Write the advantages and disadvantages of email. 1+2+2=5
- Or
- (c) Write a short note on influences of Internet to society. 5
- (d) What is Cybercrime? Explain the format of Uniform Resource Locator. 5

2014

(1st Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA-103

(Revised)

(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. RAM is a

(a) non-volatile storage ()

(b) secondary storage ()

(c) volatile storage ()

(d) input-output unit ()

2. Which of the following is not a Network Topology?
- (a) Star ()
 - (b) Ring ()
 - (c) Bus ()
 - (d) WAN ()
3. EEPROM stands for
- (a) Electrically Erasable Programmable Read Only Memory ()
 - (b) Easily Erasable Programmable Read Only Memory ()
 - (c) Electronic Erasable Programmable Read Only Memory ()
 - (d) None of the above ()
4. A computer program that converts an entire program into machine language is called a/an
- (a) interpreter ()
 - (b) simulator ()
 - (c) compiler ()
 - (d) commander ()

5. Software design to control the operation and extend the processing capability of a computer system is called
- (a) Application Software ()
 - (b) Firmware ()
 - (c) Internal Software ()
 - (d) System Software ()
6. A system with two or more CPUs having the ability to execute multiple processes concurrently is called
- (a) multiprocessing system ()
 - (b) multiprogramming system ()
 - (c) multithreading system ()
 - (d) real-time system ()
7. A malicious program that can replicate itself and spread without the help of other programs is called
- (a) Trojan Horse ()
 - (b) Worms ()
 - (c) Companion Virus ()
 - (d) Boot Sector Virus ()

8. Informations that are discrete in nature are known as
- (a) digital data ()
 - (b) analog data ()
 - (c) client data ()
 - (d) server data ()
9. Web pages are created by using a special language called
- (a) HTML ()
 - (b) HTTP ()
 - (c) FTP ()
 - (d) URL ()
10. To join the Internet, the computer has to be connected to a/an
- (a) Internet Architecture Board ()
 - (b) Internet Society ()
 - (c) Internet Service Provider ()
 - (d) HTTP ()

(5)

II. State whether True (*T*) or False (*F*) by putting a tick (✓) mark : 1×5=5

1. The two kinds of main memory are primary and secondary memory.

(T / F)

2. Operating System is an Application Program.

(T / F)

3. The physical devices of a computer system are called Software.

(T / F)

4. Second-generation computers were developed during 1956 to 1965.

(T / F)

5. WAN network covers less than 2 km.

(T / F)

(6)

SECTION—II

(Marks : 10)

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

1. What is parallel computer system?

(7)

2. Differentiate between low-level language and high-level language.

3. What are the layers in an OSI model?

4. What is an IP address?

(9)

5. Write two differences between Hackers and Crackers.

I/BCA/103

2014

(1st Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA-103

(Computer Fundamentals and PC Software)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(Marks : 50)

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

1. (a) What do you mean by digital computer?
Explain the characteristic feature of
second-generation computer. 5
- (b) Explain the basic structure of computer
organization with a neat diagram. 5

G15—50/198a

(Turn Over)

(2)

Or

- (c) What is compiler? Explain how it differs from interpreter. 4
- (d) What are secondary storage devices? How does direct access differ from sequential access in memory read/write operation? 6
2. (a) Convert the following : 1×5=5
- (i) $(6758)_8 = ?$
 - (ii) $(101101101)_2 = ?_{16}$
 - (iii) $(4706)_8 = ?_{10}$
 - (iv) $(545)_6 = ?_4$
 - (v) $(127.54)_8 = ?_{10}$

- (b) Explain how microprocessor determines the performance of a computer. Briefly describe the different types of processor. 5

Or

- (c) Explain the memory organization operates in a computer with necessary diagram. 6
- (d) What do you mean by application software? Explain the difference between word processor and spreadsheet. 1+3=4

(3)

3. (a) Explain the working operation of optical disk with neat diagram. 5

(b) Explain the difference between mainframe computer and super-computer. 5

Or

(c) What do you mean by operating system? Explain the different functions of operating system. 6

(d) Write notes on the following : 2+2=4

(i) Laser printer

(ii) Digitizer

4. (a) What is magnetic disk? Explain how data are stored and organized in magnetic disk. 2+4=6

(b) Explain how control unit and arithmetic logic unit coordinate the working operation of a computer. 4

Or

(c) What is high-level programming language? Explain the working operation of C programming language with example. 2+4=6

(4)

- (d) Write notes on the following : $2+2=4$
(i) PROM
(ii) Cache memory
5. (a) What is register? Explain the different types of register in computer architecture. $2+4=6$
- (b) What is input device? Explain how keyboard helps in giving inputs to a computer. $1+3=4$

Or

- (c) Explain the steps involving in converting one number system (other than base 10) to another number system (other than base 10) with solved example. 5
- (d) What is print preview facility? Explain the difference between cut-and-paste and copy-and-paste facilities of word processing package. $2+3=5$
