1 SEM TDC GEIT (CBCS) GE 1 (A/B)

2 0 2 1

(March)

INFORMATION TECHNOLOGY

(Generic Elective)

Paper : GE–1

(Optional)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

The figures in the margin indicate full marks
for the questions

Paper : GE–1 (A)

(COMPUTER FUNDAMENTALS)

1. Answer the following as directed :   1×5=5

   (a) The brain of the computer is the _____.
                      (Fill in the blank)

   (b) Write the full form of ASCII.

   (c) Give example of one primary memory.

   (d) What is plotter?

   (e) What is hybrid computer?

2. (a) Define analog computer. Give example.   1

   (b) What are the different types of computers classified based on size and capacity? Explain.   5

                      Or

   Explain the use of computers in the field of science.   5

3. (a) Convert the following (any five) :   2×5=10

   (i) $(11100001010.01)_2$ to hexadecimal

   (ii) $(512)_{10}$ to binary

   (iii) $(AF211)$ to binary

   (iv) $(567)_8$ to hexadecimal

   (v) $(1110.01)_2$ to decimal

   (vi) $(255)_8$ to decimal

   (b) Differentiate between volatile memory and non-volatile memory. Give example of both the types.   2+2=4

4. (a) Define secondary memory. Explain the different types of optical storage devices.   1+6=7

(3)

Or

Differentiate between impact printer and non-impact printer. Explain the printing mechanism of laser printer.

3+4=7

(b) What is OMR? 2

(c) Fill in the blank : 1

Bar code reader is a _____ device.

5. *(a)* What is operating system? Explain the role of operating system in a computer.

1+4=5

Or

Explain the use of utility program in a computer system. 5

(b) What is system software? Give example.

2+1=3

6. *(a)* What is register? List out the commonly found registers in the CPU and explain their functions. 1+5=6

Or

Briefly explain the following (any *two*) :

3×2=6

(i) Big data

(ii) Cloud computing

(iii) Data mining

(4)

(b) Define the following (any *two*) : 2×2=4

(i) System bus

(ii) Cache memory

(iii) Port

Paper : GE–1 (B)

(IT FUNDAMENTALS)

1. Answer the following as directed : 1×5=5

(a) Pick the odd one out :

(i) Keyboard

(ii) Printer

(iii) Joystick

(iv) Scanner

(b) Write the SQL command to eliminate a table from a database.

(c) RAM is a non-volatile memory.

(State True or False)

(d) Give an example of unguided media.

(e) What is secondary memory?

2. Answer the following in brief : 2×5=10

(a) Define primary memory.

(b) What is system software?

(c) Write the difference between primary key and foreign key.

(d) What are entities and attributes?

(e) What is SPSS?

3. What is an operating system? Give one example. What are the functions of operating system? 2+1+4=7

4. *(a)* What is SQL? 1

(b) Explain the following SQL commands with examples (any *three*) : 3×3=9

  (i) Select

  (ii) Create

  (iii) Update

  (iv) Alter

5. What are guided media and unguided media? Explain any two guided media. 3+4=7

Or

What is a computer network? Describe the different types of computer networks. 1+6=7

6. What is Internet? Explain any two Internet utilities. Give an example of a search engine. 1+5+1=7

7. Explain how computers are used in education and research. 7

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