

2018

CBCS

1st Semester

COMPUTER SCIENCE

PAPER—GEIT

(Honours)

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

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

Illustrate the answers wherever necessary.

Computer Fundamental

1. Answer five questions : 5×2
- (a) Write the functions of application software.
 - (b) $(ABC)_{16} = (?)_8$.
 - (c) What is a microprogram ?
 - (d) Mention the name of some I/O devices.

(Turn Over)

- (e) What is processor ?
- (f) What is utility software ? Give some examples of utility software.
- (g) Write the function of program counter.
- (h) What is buffer ?

2. Answer *four* questions :

4×5

(a) What is BCD code ? Write the function of cache memory.

2+3

(b) Write the difference between RAM and ROM. What is secondary storage ? How does it differ from a primary storage ?

2+1+2

(c) What is the importance of the difference in word sizes between small and large computers ? What is radix ?

3+2

(d) (i) Subtract 27.50 from 68.75 using 12 bit 1's complement arithmetic.

(ii) Subtract 10110 from 11011 using 2's complement arithmetic.

[2½+2½]

- (e) (i) What is OS ? Discuss types of operating system with example.
- (ii) What is process and thread ? (1+2)+2
- (f) (i) Define special purpose registers in CPU.
- (ii) Why cache memory used in memory system ? (3+2)
3. Answer one question : 1×10
- (a) Draw a block diagram of the basic organization of a computer system and explain the functions of the various units. Subtract $(11011)_2$ from $(101110)_2$ using 2's complement method. $(101110)_2 = (?)_8$. 6+2+2
- (b) (i) What is Cloud Computing ? Discuss three common Cloud service model. 2+3
- (ii) a. What are the key features of Bluetooth Technology ? Define the max speed and max range of Bluetooth version 4.0. 2+1
- b. Write down the function of Modem. 2