

Total No. of printed pages = 4

BCA 171101

20/11/17
Library, G.I.M.T.

Roll No. of candidate

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2018

B.C.A. 1st Semester End-Term Examination

COMPUTER FUNDAMENTALS AND ICT
HARDWARE

Full Marks – 70

Time – Three hours

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

Answer Q. No. 1 and any *four* from the rest.

1. Choose the correct option. (10 × 1 = 10)
- (i) Which of the following is known as primary memory of a computer?
- (a) RAM
 - (b) ROM
 - (c) Cache Memory
 - (d) None of the above
- (ii) A byte contains
- (a) 8 bits
 - (b) 4 bits
 - (c) 16 bits
 - (d) 32 bits

[Turn over

- (iii) Grey code is also known as
- (a) Reflected Code
 - (b) BCD Code
 - (c) Binary code
 - (d) None of the above
- (iv) Which of the following memory store instructions that are required to start the computer?
- (a) ROM
 - (b) RAM
 - (c) Both (a) and (b)
 - (d) None of the above
- (v) The first generation computer is based on
- (a) Vacuum tubes
 - (b) Transistor
 - (c) Integrated circuit
 - (d) Microprocessor
- (vi) 1 Terabyte is equal to
- (a) 1024 Gigabytes
 - (b) 1024 Kilobytes
 - (c) 1024 bytes
 - (d) None of the above
- (vii) Which of the following memory is the fastest?
- (a) Main Memory
 - (b) Secondary Memory
 - (c) Cache Memory
 - (d) None of the above

(viii) ASCII stands for

- (a) American Standard Code Information Interchange
- (b) American Scientific Code Information Interchange
- (c) American Standard Code Interchanging Information
- (d) None of the above

(ix) EBCDIC uses

- (a) 7 bits
- (b) 8 bits
- (c) 16 bits
- (d) 32 bits

(x) Which of the following memory store data permanently?

- (a) Hard disk
- (b) DVD
- (c) Both (a) and (b)
- (d) None of the above

2. (a) What is a computer? What are the advantages of using a computer? Mention some application of computer. (2 + 3 = 5)

(b) Explain why CPU is known as the brain of computer. (5)

(c) What is computer memory? What are the different types of computer memory? (5)

3. (a) Find 2's complement of the following binary number. (2)

1000 100

(b) Convert $(306.D)_{16}$ to Binary number. (2)

- (c) What is a gray code? Find the grey code of $(0111)_2$. (2)
- (d) Obtain the 9's complement of 13579. (2)
- (e) Use 10's complement to perform M-N with the given numbers. (7)
- $M = 72532$ and $N = 3250$
4. (a) What are the different generations of computer? Give some salient features of each generation. (6)
- (b) Differentiate between a compiler and interpreter. (6)
- (c) What is an assembler? (3)
5. (a) What is alphanumeric code? Give two examples. (3 + 2 = 5)
- (b) Differentiate between static RAM and dynamic RAM. (5)
- (c) What is BIOS? What is the function of BIOS? (5)
6. (a) What is disk clean tip and disk defragmentation? Explain. (5)
- (b) What is logic gate? Give some examples. (5)
- (c) What is an algorithm? Mention the characteristics of an algorithm. (5)
7. (a) What are the different types of computer? Explain with examples. (5)
- (b) What is software? Differentiate between application software and system software. (5)
- (c) What is computer port? Explain with examples. (5)