

4008-01

No. of Pages : 4

Degree (Part-I) Vocational Examination, 2019

[Paper : First]

[PPU-D-I(V)H-BCA - 1]

Time : Three Hours]

[Maximum Marks : 75

Note : Candidates are required to give their answers in their own words as far as practicable. The questions are of equal value. **Question No. 1 is compulsory.** Answer any five questions in all.

1. Perform the following conversions :

- (a) Convert binary 1001001110 to Decimal.
- (b) Convert decimal 1024 to Binary.
- (c) Convert $(DCA4)_{16}$ to Binary.
- (d) Convert $(11010101)_2$ into 2's complement.
- (e) Find $(342)_8 + (410)_8$ and convert the result to decimal.

2.
 - (a) Discuss the characteristics of a digital computer
 - (b) What is the difference between analogue, digital and hybrid computer systems ?
 - (c) What is the difference between Input, output and I/O unit ? Give two examples of each.
3.
 - (a) Name the applications of a digital computer in various areas of present day life.
 - (b) Draw a labelled diagram of a drum printer and describe its working mechanism. Is it a non-impact type of printer ?
4. Differentiate between the following with examples :
 - (a) SASD and DASD
 - (b) E-Mail and Instant Messenger
 - (c) ASCII and EBCDIC
5. With respect to hard disk drive, define :
 - (i) Track and Sector
 - (ii) Seek Time and Latency Time

- ✓ (iii) Field, Record, Block, Blocking Factor
6. How are negative numbers represented in a digital computer ? Discuss the different schemes for representing negative numbers with their characteristics.

(b) Distributed Processing

(c) Thermal Printers

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7. What is the difference between :

✓ (i) HLL and LLL

✓ (ii) Machine language and Assembly language

✓ (iii) Compiler and Interpreter

8. What do you understand by MIS ? What are the main Information systems that are essential for a business organization ?

9. ✓ (a) What are the essential characteristics of an algorithm ? Enumerate.

✓ (b) Write an algorithm to print out the prime numbers from 101 to 200

10. Write short notes on :

(a) Teleconferencing