

4005-02

No. of Pages : 4

Degree (Part-I) Vocational (Hons.) Examination, 2019

# INFORMATION TECHNOLOGY

[ Paper : Second ]

[ PPU-D-IV(H)-IT-2 ]

Time : Three Hours

[ Maximum Marks : 75 ]

**Note :** The questions are of equal value. Answer **five** questions, selecting at least **one** from each group



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1. What are the different types of languages that are available in the DBMS ? Explain the concepts of a Primary Key and Foreign Key.
2. What are the different levels of abstraction in the DBMS?
3. Explain Data anomalies with suitable example.
4. What is Normalization ? Explain 2NF and 3NF with example.

## GROUP-B

5. Define Operating System. What is the relationship between operating system and computer hardware ? Differentiate between Batch processing system and Real Time Processing System.

6. What is a Process ? Explain the different states of process with diagram.

7. What is Deadlock ? Elaborate the necessary conditions for deadlock.

8. Write short notes on the following :

- (a) DMA
- (b) Paging
- (c) Virtual Memory

## GROUP-C

9. What are Diodes ? Explain the characteristics of Zener diode and Photo diode.

10. What are Multivibrators ? Explain MOSFET and CMOS.

11. Explain the following :

(a) p-n junction

(b) Band Theory

12. What is a Resistance ? Explain different types of resistance and color coding of resistance.

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