

**Degree (Part-I) (Voc.) Examination, 2021****(Honours)****INFORMATION TECHNOLOGY****[ PPU-D-I-(V)-H-IT-2 ]****[ Paper : Second ]****Time : Three Hours]****[Maximum Marks : 75]**

**Note :** Candidates are required to give their answers in their own words as far as practicable. All questions are of equal value. Answer **any five** questions, selecting atleast one from each group.

**Group-A**

1. Write short notes on the following terms/keywords :

(a) Normalisation

(b) Primary key

(c) BCNF

2. (a) Describe database management system with types of DBMS using suitable example.

(b) Explain the difference between Primary Key and Foreign Key.

3. (a) Describe E-R diagram with suitable example.

(b) What are the differences between generalisation and specialisation ?



Group-B

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4. Write short notes on the following terms/keywords :

(a) PCB

(b) Scheduling

(c) Round Robin

5. (a) What is the difference between preemptive and Non-preemptive scheduling ?

(b) Describe all the functions of OS.

6. (a) Describe the types of OS with advantages  
(b) What is deadlock ? Describe avoidance, detection and recovery of deadlocks.

### Group-C

7. Write short notes on the following terms/keywords

(a) Color Code  
(b) Conductor  
(c) Capacitance

8. (a) What are the differences between conductor and semi-conductors?  
(b) Describe Zener diode and Tunnel diode.

9. (a) Describe FET metal oxide and CMOS.  
(b) What are the difference between Monostable and Astable multivibrations ?

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