

**4005-03**

**Printed Pages : 4**

**Degree (Part-II) Vocational Examination, 2021**

**(Honours)**

# **INFORMATION TECHNOLOGY**

**[ Paper : Third ]**

**[ PPU-D-II-(V)-(H)-(IT)-3 ]**

**Time : Three Hours]**

**[Maximum Marks : 75**

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

## **Group-A**

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

(a) Queue

(b) Linear and Non-Linear data structure

(c) Array

2. (a) What is STACK ? Write a function using array in stack operation PUSH, POP.
- (b) What is Binary Tree ? Explain with suitable example.
3. (a) Explain Single Linked List. Write a function to create Single Linked List.
- (b) Explain Binary Tree Traversal algorithm In-order, Pre-order and Post-order.

### Group-B

4. Write short notes on the following terms/keywords :
- (a) Encoder
- (b) Universal NAND GATE
- (c) Adder
5. (a) Explain K-Map with suitable example for 2-variable.
- (b) Explain Multiplexer with diagram.

6. (a) Explain Flip-Flops with suitable example.
- (b) Explain Canonical forms sum of products and product of sums.

### Group-C

7. Write short notes on the following terms/keywords :
- (a) Boot Block
- (b) Data Block
- (c) Kernel
8. (a) Write the basic features and advantages of LINUX.
- (b) Explain file system of LINUX.
9. (a) Write steps to LINUX system startup and shut-down process.
- (b) Explain cd, ls, cp, md, rm, mkdir commands of LINUX.

----- X -----