4005-3

Printed Pages: 4

Degree (Part-II) (Vocational) Examination, 2020

(Honours)

INFORMATION TECHNOLOGY

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

Time: Three Hours

[Maximum Marks: 75

104

Note: All the questions are of equal value. Answer five

questions, selecting at least one from each group.



Write short notes on the following terms/keywords:

(a) Stack

(b) Doubly Linked List

(C) AVL Tree

(a) What is a Circular Queue ? Write a program (using array implementation) for inserting and deleting elements in a Circular Queue.

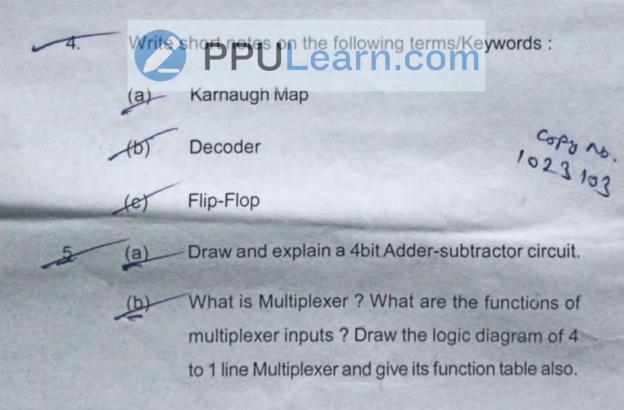
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(1)

[P.T.O.]

- What is a Binary Search Tree ? Write down different properties of a Binary Search Tree.
- (a) What do you mean by Graph Traversal?
 Compare and contrast: Depth-First Traversal
 (DFS) and Bresdth-First Trsversal (BFS).
 - (b) Illustrate with the help of an example, how an infix expression is converted into postfix using a Stack?

GROUP-B



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(2)

- 6. (a) Convert the Boolean formula "(A + (B x (C + D))) x E" to "sum of products" form, showing each step clearly.
 - (b) Find out the simplified equation for the function f (a, b, c) using "sum of products" from the following truth table.

	a	b	С	f	Manager at a
	0	0	0	1	
	0	1	0	1	
	0	1	0	0	
	PP	9	1	Pr	.com
9	1	7	0	1	1.00111
	1	0	1	0	
	1	1	0	0	
	1	1	1	1	

GROUP-C

Write short notes on the following terms/keywords:

- (a) Super Block
- (b) Inode Table
- (c) Kernel

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(3)

- 8. (a) What task does "init" perform ? In this context also mention in detail the roles performed by related processes.
 - (b) What is a process ? How are you able to get complete information about all currently scheduled processes ?
- 9. (a) How could you use the "cat" command to behave as an editor?
 - (d) What does the command "grep" do? What are the various options? Give the syntax of the command.
 - (c) Putament Access Permissions in Linux through command? Explain with example.

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