G.V.M's G.G.P.R. College of Commerce and Economics

Farmagudi -Goa

BCA (Semester II) Intra Semester Assessment (ISA)-(Test-III) March 2017

ENVIRONMENTAL STUDIES

MARKS: 15 TIME: 45 Minutes

Answer any five of the following questions: (10 mks)

1. Explain disaster management.
2. What are the impacts of global warming?
3. Define acid rain.
4. Write on value education.
5. State some strategies to combat ozone layer depletion.
6. Explain forest conservation act.

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DATA STRUCTURES

MARKS: 15 TIME: 45 Minutes

Q.1. Define strictly binary tree. (1 mk)

Q.2. Define Leaf Node. (1 mk)

Q.3. Define Almost complete binary tree. (2 mks)

Q.4. State tree traversal techniques with example. (3 mks)

Q.5. Write C representation for the following. (3 mks)

a.maketree(x)

b.setleft(p,x)

c.isright(p)

Q.6. Write C program to create and display a binary tree. (5 mks)

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DISCRETE MATHEMATICS

MARKS: 15 TIME: 45 Minutes

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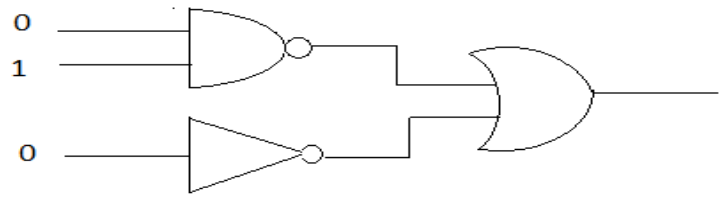
1. Consider p : n is a negative integer & q : n is greater than 10.
   Express the following compound statements in sentences
   i) (p q)V ~p, ii) ~ p ↔ q. (2 mks)

2. Check whether the (r V~s)→(~sΛ~r) is a tautology. (3 mks)

3. Verify $\overline{(x+y)\cdot(x\cdot y)} = \overline{(x\cdot y)}$ (3 mks)

4. Find the output for the following circuit diagram



(2 mks)

5. Which of the following strings belong to the L(R) over **σ**={a,b,c,d} ,
   where R=$(a|b)^*cd^*$.
   i) aacddc, ii) aaaacddd, iii) bbbcdd, iv) cdd, v) abbbcdd vi) aaaaac (2 mks)

6. Give three strings that belong to the language L given by the grammar G={N,V,**σ**,P}, where N={S, Q, R} (with S as the starting point}, V=**σ**={a,b,c} and P is given as follows
   S →aQ, Q→aQ, Q→bQ, Q→cQ, Q→cR, R→b. (3 mks)

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G.V.M'S G.G.P.R. COLLEGE OF COMMERCE & ECONOMICS
FARMAGUDI, PONDA
INTRA SEMESTER ASSESSMENT TEST - III
B.C.A. SEMESTER II ,MARCH 2017
COST ACCOUNTING

MARKS :- 15 Duration:- 45 minutes

Q.1) Differentiate between Time Rate system & Piece Rate System of wage payments? (2 marks)
(Any 2 points)

Q.2) Explain in brief:
a) LIFO Method (2 marks)
b) Weighted Average Method (2 marks)

Q.3) Following is a cost data relates to "CMRS Company". (9 marks)
January 2016

1st - Opening Stock 250 units @ Rs 20 each.
3rd - Purchased 200 units @ Rs. 21 each.
5th - Issued 300 units.
7th - Purchased 400 units @ Rs 24 each.
8th - Issued 250 units
12th - Issued 150 units
23rd - Purchased 250 units @ Rs. 25 each.

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INTRA SEMESTER ASSESSMENT TEST-3
SEMESTER II
MARCH 2017

F.Y.B.C.A.
OPERATING SYSTEM CONCEPTS

MARKS:- 15 **Duration:- 45 minutes**

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ANSWER THE FOLLOWING :-

1. Explain External Fragmentation. Also, explain Page Table. (2 mks)

2. Draw the Gantt chart based on the given processes and calculate the waiting time and the average waiting time, for the Round-Robin Scheduling method, with a time quantum of 4 milliseconds. (2 mks)

Process	Burst Time
P_1	24
P_2	8
P_3	3
P_4	9

3. Explain Segmentation with an example. Also, elaborate on STBR and STLR. (3 mks)

4. Explain the Resource-Allocation Graph with the help of a diagram. Also, explain that "All deadlocks are unsafe, but all unsafe are not deadlocks". (4 mks)

5. Explain the Readers-Writers Problem. (4 mks)

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