

G.V.M's G.G.P.R. College of Commerce and Economics  
Farmagudi, Ponda-Goa.

B.C.A. (Semester II) Intra Semester Assessment (I.S.A.) Test-I January 2018

**ENVIRONMENTAL STUDIES**

Duration:- 30 minutes

Marks:- 10

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Q.1) Explain classification of Pollutants. (2 mks)

Q. 2) What are the different sources of Water Pollution? (2 mks)

Q.3) What is Radioactive Pollution? Write any two effects of Radioactive Pollution.

(2 mks)

Q.4) What are the different methods of disposal of Solid waste. (2 mks)

Q.5) What is Biodiversity? State its levels. (2 mks)

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**OPERATING SYSTEM CONCEPTS**

Duration:- 45 minutes

Marks:- 15

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**ANSWER THE FOLLOWING :-**

1. What are the basic elements of a Computer System ? (2 mks)
2. What is the main difference between the User mode and the Kernel mode ? (2 mks)
3. Explain – Operating System is a Control Program. (3 mks)
4. Explain the major services of Operating System. (4 mks)
5. Explain the Process State with the Diagram. (4 mks)

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**DATA STRUCTURES**

Duration:- 45 minutes

Marks:- 15

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Q. 1) Define the following:

- a) Pushdown list. (2 mks)
- b) Queue Data structure. (2 mks)

Q. 2) Answer the following(Any 2).

- a) State and explain primitive operations on stacks. (3 mks)
- b) Write C representations for Circular Queues. (3 mks)
- c) Discuss the uses of stack data structure. (3 mks)

Q. 3) Write a C Program for validating an expression for  
Parenthesis using stacks. (5 mks)

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**COST ACCOUNTING**

Duration:- 45 minutes

Marks:- 15

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Q. 1) Explain the following:-

- a) Fixed Cost (1 mk)
- b) Cost Accounting (1 mk)
- c) Give any two points of distinction between Cost Accounting and Financial Accounting. (1 mk)

Q. 2) "SASHA Company" submits the following information for the year 2017.

→ Inventories at the beginning of 2017: (12 mks)

- o Finished goods 7000
- o Work – in – progress 4000
- o Purchase of raw materials 110000

→ Material Inventory:

- o Opening 3000
- o Closing 4000

→ Direct labour 65000

→ Income tax 5000

→ Dividend 3000

→ Factory overhead – 60% of Direct labour cost.

→ Inventories at the close of the year:

- o Finished goods 8000
- o Work-in-progress 6000
- o Goodwill written off 10000

→ Other expenses for the year are as follows:

- o Selling expenses - 10% of sales.
- o Administration expenses – 5% of sales.

→ Sales for the year - 275000

Prepare statement of Cost. Show all your working Notes.

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RKS = 15

Duration = 45 minutes

Answer the following questions

Write each of these sentences in the form "if p, then q".

(a) It is necessary to walk 8 miles to get to the top of  
's peak, (b) If you drive more than 400 miles, you will need  
up gasoline (c) your guarantee is good only if you bought  
CD player less than 90 days ago. (3 marks)

Construct a truth table for the compound proposition below.  
(3 marks)

$$(p \leftrightarrow q) \vee (\neg q \leftrightarrow r)$$

Show that  $\neg(p \rightarrow q) \rightarrow \neg q$  is a tautology. (3 marks)

Let  $A = \{0, 2, 4, 6, 8, 10\}$ ,  $B = \{0, 1, 2, 3, 4, 5, 6\}$

and  $C = \{4, 5, 6, 7, 8, 9, 10\}$ . Find

(a)  $(A \cup B) \cap C$  and (b)  $(A \cap B) \cup C$ . (3 marks)

Show that  $(p \rightarrow r) \vee (q \rightarrow r)$  and  $(p \wedge q) \rightarrow r$  are

logically equivalent. (3 marks)