

G.V.M's G.G.P.R. COLLEGE OF COMMERCE & ECONOMICS  
FARMAGUDI, PONDA-GOA

INTRA SEMESTER ASSESSMENT TEST-I OF SEMESTER-II JANUARY 2015

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

MARKS:- 15

Duration:- 45 minutes

1. Answer the following. (2 x 1½ mk=3 mks)
- a.) What is a Time Sharing System ?
  - b.) What is a System Bus ?

2. Draw the Gantt chart based on the given processes and calculate the waiting time and the average waiting time for each of the scheduling methods, if were scheduled using,

- a.) First-Come, First-Served Scheduling. (1 mk)
- b.) Round-Robin Scheduling with a time quantum of 5 milliseconds. (2 mks)

<u>Process</u>	<u>Burst Time</u>
P <sub>1</sub>	25
P <sub>2</sub>	5
P <sub>3</sub>	4
P <sub>4</sub>	10

3. Answer the following. (3 x 3mks=9 mks)
- a.) Explain the Many-to-One Model of Multithreading with the diagram.
  - b.) Explain the Process Control Block with the diagram.
  - c.) Explain three services of an Operating System.

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ENVIRONMENTAL STUDIES

Time: 45 minutes.

Marks : 10

- I) Fill in the blanks. (4 marks)
1. The substances which cause pollution are known as \_\_\_\_\_
  2. The transport exhaust , which contain different compounds like nitrogen oxide , react in presence of sunlight to produce smog called as \_\_\_\_\_
  3. The furnaces of industries generate \_\_\_\_\_ that is unburnt brownish black substance which cause pollution.
  4. Oxides of carbon , nitrogen , sulphur combine with water vapour in the air and come down as \_\_\_\_\_
  5. World Health Organisation has recommended \_\_\_\_\_ decibels as the safe level of noise.
  6. The word pollution comes from the greek word \_\_\_\_\_
  7. When air has a combination of fog and smoke is called as \_\_\_\_\_
  8. The effects of radiation may appear within few months or after many years of exposure, such effects are called as \_\_\_\_\_ effects.
- II) Answer any six of the followin (6 marks)
1. What is biological magnification?
  2. Explain the sources of water pollution on the basis of location.
  3. What are the effects of thermal pollution?
  4. Write any two global effects of air pollution.
  5. What measures should be adopted to prevent from nuclear hazards?
  6. What are the ailments caused in human beings by polluted air?
  7. Explain any two agricultural practices that causes soil plution.
  8. What are the causes of noise pollution?

THE END

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**DATA STRUCTURES**

Time: 45 minutes.

Marks : 15

- Q. 1) Define pushdown list. ( 2 mks)
- Q. 2) State & explain primitive operations on stack. ( 3 mks)
- Q. 3) Write C implementation for pop operation. ( 3 mks)
- Q. 4) Convert the following infix expression to prefix. ( 2 mks)

$A \$ B * C - D * F + G$

- Q. 5) Write a C program to validate an expression for parenthesis using stack. ( 5 mks)

\*\*\*\* best of luck\*\*\*\*\*

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DISCRETE MATHEMATICS

Time: 45 minutes.

Marks : 15

- Q. 1) Write a short note on logical connectives. (5 mks)  
i) NOT ii) OR (Disjunction) iii) AND (Conjunction).
- Q. 2) Construct the truth table for the following statements. (5 mks)  
i)  $p \wedge (p \vee q)$  ii)  $[p \wedge (p \rightarrow q)] \rightarrow q$
- Q. 3) Examine whether the following statements are tautologies, Contradictions or Contingency. (5 mks)  
i)  $p \wedge [\sim (p \vee q)]$  ii)  $[p \wedge (p \rightarrow q)] \rightarrow q$

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COST ACCOUNTING

Time: 45 minutes.

Marks : 15

Q. 1) The following Cost data is extracted from the books of "M/S Aditya Industries Ltd" for the year ended December 2014. ( 10 mks)

Sales for the year 2014	850000
Indirect wages	9100
Selling expenses	7700
Opening stock of raw materials	470900
General expenses	5000
Purchases	175200
Factory cleaning	4020
Printing and Stationery	3700
Closing stock of raw materials	285100
Income tax	10000
Packing charges	5200
Carriage inward	3700
Depreciation on office furniture	20000
Depreciation on Plant	95000
Delivery van charges	4800
Salesmen salary	7000
Rent & Rates (office)	8500
Direct wages	65000
Advertising	5200
Postage	1900

You are required to prepare a statement of Cost for the year ended 31<sup>st</sup> December 2014.

Q. 2) Answer in 3 to 4 lines.

- Differentiate between Cost & Price. ( 2 mks)
- Define fixed Cost. ( 1 mk)
- What do you mean by elements of cost. ( 2 mks)

\*\*\*\* best of luck\*\*\*\*\*