

FINAL EXAMINATION

December 2013

F-P15(EPM)
Syllabus 2008

Management Accounting—Performance Management

Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.

Attempt Question No. 1 (carrying 25 marks), which is compulsory and **any five more questions** (each carrying 15 marks) from the rest.

Please (i) Answer all part of a question at one place only.
(ii) Open a new page for answer to a new question.

1. (a) State whether the following statements given below are 'True' or 'False'. If True, simply rewrite the given statement (= 1 mark). If False, state it as False (= ½ marks) and rewrite the correct statement (= ½ mark):
- (i) Shared belief does not ensure greater commitment of the employee to the organization.
 - (ii) Break Even Chart is dynamic.
 - (iii) Quality Circle is a group of employees who formally meet together.
 - (iv) Variable Cost is also known as Indirect Cost.
 - (v) Balanced Score card is a new approach to Strategic Management and was developed by Joseph Maciariello and Calvin Kirby. 1×5=5
- (b) Match Column I with Column II:
- | <i>Column I</i> | <i>Column II</i> | |
|-------------------------------|--|--------|
| (i) A Chase Strategy | A. is price led | |
| (ii) Value Analysis | B. most significant development in Business Management | |
| (iii) Life Cycle Costing | C. Critical part in HR Plg. process | |
| (iv) Supply Chain's emergence | D. Process of analyzing empirical data | |
| (v) Decision Tree | E. Vogel's Approximation Method | |
| (vi) Succession Planning | F. Technique of last resort | |
| (vii) Transportation Model | G. implies matching demand and capacity period by period | |
| (viii) Target Costing | H. Rolling-Back Technique | |
| (ix) Simulation Model | I. assists mgmt. in decision-making | |
| (x) Data Mining | J. Cost Reduction | ½×10=5 |
- (c) Define the following terms in one/two sentences:
- (i) Cybernetics
 - (ii) Seiso
 - (iii) Sensitivity Analysis
 - (iv) Six Sigma
 - (v) Generic Benchmarking 1×5=5
- (d) Expand the following abbreviations:
- (i) CPOF
 - (ii) EMS
 - (iii) CER
 - (iv) FMECA
 - (v) FAST 1×5=5

Please Turn Over

(e) Fill in the blanks with the most appropriate words out of the options indicated in the bracket against each statement:

- (i) Management Control System (MCS) is a set of _____ (inter/intra) related communication.
- (ii) The idea behind Lean/JIT is a concept called _____ (idle/ideal) production.
- (iii) The Master Production Schedule is divided into units of time called _____ (Drums/Buckets).
- (iv) A Customer FAST diagram is usually applied to _____ (average/total) product.
- (v) Business Process Perspective refers to _____ (internal/external) business processes. 1×5=5

2. (a) Kolkata City Corporation has decided to carry out road repairs on main four entries of the city. The Government has agreed to make a special grant of Rs. 53 Lakhs towards the cost with a condition that the repairs must be done at the lowest cost and quickest time. If conditions so warrant, Supplementary grant will also be considered favourably. The Corporation has floated tenders and 5 Contractors have sent in their bids. In order to expedite work, one road will be awarded to only one contractor.

Contractors/Road	R ₁	R ₂	R ₃	R ₄
C ₁	9	14	19	15
C ₂	7	17	20	19
C ₃	9	18	21	18
C ₄	10	12	18	19
C ₅	10	15	21	16

As a Cost Accountant, You have to:

- (i) Find out the best way of assigning of repair work to the contractors with the costs.
 - (ii) If it is necessary to seek supplementary grants, then what should be the amount sought?
 - (iii) Which of the five Contractors will be unsuccessful in his bid? 3+2+2=7
- (b) A manufacturer of fountain pens selling in the market at Rs. 100 per dozen makes an average net profit of 20% on sales by producing 50,000 dozen per annum against a capacity of 75,000 dozens.

His Cost Sheet for the year was as under:

	Cost per dozen (Rs.)
Direct Materials	36
Direct Wages	30
Works overheads (50% of this is variable)	10
Sales overhead (25% of this is variable)	4

During next year, he anticipates his fixed costs to increase by 6%, Cost of Direct Materials by 5% and labour (with whom an agreement had been concluded) by 10%. Market enquiries revealed that the selling price of the product and quantity will remain unchanged during the next year.

An enquiry has been received for the supply of 10,000 dozens to a customer. What could be the lowest quotation, if the business wants to make a minimum profit of Rs. 8 lakhs during the next year? Give detailed workings. 8

3. (a) What do you mean by 'Simulation'? 3

(b) Patients arriving at a village dispensary are treated by a doctor on a first-come-first-served basis. The inter-arrival time of the patients is known to be uniformly distributed between 0 and 80 minutes, while their service time is known to be uniformly distributed between 15 and 40 minutes.

It is desired to simulate the system and determine the average time a patient has to be in the queue for getting service and the proportion of time the doctor would be idle.

Carry out the simulation using the following sequences of random numbers. The numbers have been selected between 00 and 80 to estimate inter-arrival times and between 15 and 40 to estimate the service times required by the patients.

Series 1	07	21	12	80	08	03	32	65	43	74
Series 2	23	37	16	28	30	18	25	34	19	21

Assume Starting time as 8.00 A.M.

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4. (a) What are the shortcomings of the Balanced Score card? 4
- (b) Define the term 'Total Quality Management'. State its Objectives. 4
- (c) The following details relating to the Product 'X' during the month March, 2011 are available. You are required to compute:
- Material Price Variance.
 - Material Usage Variance.
 - Material Cost Variance.
 - Labour Rate Variance.
 - Labour Efficiency Variance.
 - Labour Cost Variance.

You are also required to reconcile the standard and actual cost with the help of such variances.

Standard Cost per unit:

Materials 50 kg. @ Rs. 40 per kg.

Labour 400 hrs. @ Re. 1.00 per hour

Actual Cost for the month:

Material 4,900 kgs. @ 42 per kg.

Labour 39,600 hours @ Rs. 1.10 per hour

Actual production—100 units

6+1=7

5. (a) What is 'Aggregate Planning'? State its techniques. 1+4=5
- (b) Ankita Road Liner is a transport Company, that transport goods all over India and it measures quality of services in terms of:
- Time required to transport goods.
 - On-time delivery.
 - Number of lost or damaged cartons.

To improve its business prospects and performance, the company is seriously considering to install a Scheduling and Tracking System, which involves an annual outlay of Rs. 1,50,000, besides equipments costing Rs. 2,00,000 needed for installation of the system. The company proposes to utilize the proceeds of the Fixed Deposit maturing next month to purchase the equipment. The rate of interest at present on deposit is 10%. The company furnishes the following information about its present and anticipated future performance:

	Current	Expected
On-time delivery	85%	95%
Variable Cost per carton lost or damaged	Rs. 50	Rs. 50
Fixed Cost per Carton lost	Rs. 30	Rs. 30
Number of Cartons lost or damaged	3,000	1,000

The Company expects that each per cent point increase in on-time performance will result in revenue increase of Rs. 18,000 per annum. Contribution margin of 45% is required.

As a Professional Cost and Management Account, advise whether Ankita Road Liner acquire and install the new system.

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Please Turn Over

6. (a) What is the 5-S concept?
 (b) What is EFQM? What is its role?
 (c) What are the scopes of Enterprise Risk Management? 5+5+5=15

7. (a) What are the benefits of Activity Based Costing? 5
 (b) Karishma Enterprises produces a Product X, using Raw Materials A and B. The Standard Mix of A and B is 1 : 1 and the Standard Loss is 10% of input. Compute the missing information indicated by '?' based on the data given below:

Particulars	A	B	Total	
Standard price of Raw Material (Rs./Kg.)	24	30		
Actual Input (Kg.)	?	70		
Actual Output (Kg.)				?
Actual Price (Rs./Kg.)	30	?		
Standard Input Quantity (Kg.)	?	?		
Yield Variance (Sub Usage)	?	?	270(A)	
Mix Variance	?	?	?	
Usage Variance	?	?	?	
Price Variance	?	?	?	
Cost Variance	0	?	1300(A)	10

8. Write a short note on *any 3* out of the following:
 (a) ERP;
 (b) Budget Process and its impact on human behavior;
 (c) Benefits of Intranet;
 (d) Different types of Benchmarking. 3×5=15