# III Semester M.Com. Degree Examination, January 2019 (CBCS) COMMERCE

Paper - 3.4 AT : Strategic Cost Management - I

Time: 3 Hours

Max Marks . 70

Instruction: Answer all the sub-Sections.

#### SECTION - A

Answer any seven of the following. Each question carries two marks. (7x2=14)

- 1. a) What are the techniques of cost control?
  - b) What is value engineering?
  - c) What is cost pool and cost object?
  - d) Distinguish between Kaizen Costing and Value Engineering.
  - e) Define cost and value.
  - f) What are the categories of project life cycle?
  - g) What is lean cost management?
  - h) What is bench marking?
  - i) State any four benefits of PLCC.
  - j) What are cost drivers?

#### SECTION - B

Answer any four questions. Each question carries five marks.

 $(4 \times 5 = 20)$ 

2. Company X is forced to choose between two machines A and B. The two machines are designed differently, but have identical capacity and do exactly the same job. Machine A costs Rs 1,50,000 and will last for 3 years. It costs Rs. 40,000 per year to run. Machine B is an 'economy' model costing only Rs. 1,00,000, but will last only for 2 years, and costs Rs 60,000 per year to run. These are real cash flows. The costs are forecasted in rupees of constant purchasing power. Ignore tax. Opportunity cost of capital is 10%. Which machine should Company X bûy?

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- Ever Forward Ltd. is manufacturing and selling two products: Splash and Flash, at selling prices of Rs. 3 and Rs. 4 respectively. The following sales strategy has been outlined for the year 2018.
  - Sales planned for year will be Rs. 7.20 lakhs in the case of Splash and Rs. 3.50 lakhs in the case of Flash.
  - Break-even is planned at 60% of-the total sales of each product.
  - Profit for the year to be achieved is planned at Rs. 69,120 in the case of Splash and Rs. 17,500 in the case of Flash. This would be possible by launching a cost reduction programme and reducing the present annual fixed expenses of Rs. 1,35,000 allocated as Rs. 1,08,000 to Splash and Rs. 27,000 to Flash.
  - The selling price of Splash and Flash will be reduced by 20% and 12.5% respectively to meet the competition.
    - You are required to present the proposal in financial terms giving clearly the following information.
  - Reduction in fixed expenses product-wise that is envisaged by the cost Reduction Program.
- 4. A company is considering the purchase of a new machine for Rs. 3,50,000. It feels quite confident that it can sell the goods produced by the machine so as to yield an annual cash surplus of Rs. 1,00,000. There is however some uncertainty as to the machine's working life. A recently publish Trade Association Survey shows that members of the Association have between them owned 250 of these machines and have found the lives of the machines vary as under:

No. of year of Machine life 3 4 5 6 7 Total Total No. of machines having given life 20 50 100 70 10 250 Assuming a discount rate of 10% the net present value for each different machine life is as follows:

Machine life 3 4 5 6 7

N.P.V. (Rs.) (1,01,000) (33,000) 29,000 86,000 1, 37,000

You are required to advice whether the company should purchase a new machine or not.

- 5. Explain the role of cost accounting in strategic planning.
- 6. Explain the problems of overhead absorption in traditional system.
- 7. What are the drawbacks of lean cost management?

#### SECTION - C

Answer any three questions. Each question carries twelve marks.

(3×12=36)

8. Altra Video Company sells package of blank Video tapes to its customers. It purchases video tapes from Yash Tape Company at Rs. 150 per packet. Yash Tape Company pays all freight to Altra Video Company. No incoming inspection is necessary because Yash Tape Company has a superb reputation for delivery of quality merchandise. Annual demand of Altra Video Company is 15,600 packages. Altra Video Company requires 10% annual return on its investment. The purchase order Lead time is 2 weeks. The purchase order is passed through internet and it costs Rs. 20 per order. The relevant insurance, material handling etc. is Rs. 10 per package per year.

Altra Video has to decide whether or not to shift to JIT purchasing. Yash Tape Company agrees to deliver 100 packages of Video tapes 156 times per year (6 times every 2 weeks) instead of existing delivery system of 1,200 packages 13 times a year, with additional amount of Re.0.05 per package. Altra Video Company incurs no stock out under its current purchasing policy. It is estimated that Altra Video Company will incur stock out cost on 50 video tape packages under a JIT purchasing policy. In the event of stock out, Altra video company has to rush order tape packages, which costs Rs. 8 per package. Comment whether Altra Video Company should implement JIT purchasing system.

Ram Co. also supplies video tapes. It agrees to supply at :Rs. 145 per package under JIT delivery system. If video tape is purchased from Ram Co. relevant carrying cost, would be Rs. 9 per package against Rs. 10 in case of purchasing from Yash Tape Company. However Ram Co. does not enjoy a sterling reputation for quality; Altra Video Company anticipates the following negative aspects of purchasing tapes from Ram Co.

- 1) Incurring additional inspection cost of Rs. 0.05 per package.
- Average stock out of 360 tape packages per year would occur, largely resulting from late deliveries. Ram Co. cannot rush order at short notice. Altra Video Company anticipates lost contribution margin per package of Rs. 10 from stock out.
- Customers would likely return 2% of all packages due to poor quality of the tape and to handle this return, an additional cost of Rs. 25 per package would be incurred.

Comment on whether Altra Video Company can place an order with Ram Co.

9. A company produces four products, viz. P, Q, R and S. The data relating to production activity are as under

| Product       | Quantity of production | Material<br>Cost/Unit<br>(Rs.) | Direct<br>labour<br>hours/<br>unit | Machine<br>hours/unit | Direct Labour cost/unit (Rs.) |
|---------------|------------------------|--------------------------------|------------------------------------|-----------------------|-------------------------------|
| P             | 1000                   | 10                             | 110                                | 0.50                  | 6                             |
| Q             | 10000                  | 10                             | 1 1                                | 0.50                  | 6                             |
| R             | 1200                   | 32                             | 4                                  | 2.00                  | 24                            |
| S             | 14000                  | 34                             | 3                                  | 3.00                  | 18                            |
| Production    | overheads are          | e as under :                   |                                    |                       | Rs.                           |
| Overheads     | applicable to          | machine ori                    | ented ac                           | tivity 1,49           | 9,700                         |
| Overheads     | relating to ord        | dering mater                   | rials                              | rise at seath of      | 7,680                         |
| Set up cost   | s                      | A RECT ACTUAL                  |                                    |                       | 7,400                         |
| Administrat   | ion overheads          | for spare p                    | arts                               | 34                    | 4,380                         |
| Material ha   | ndling costs           |                                |                                    | 30                    | 0,294                         |
| The following | ng further info        | rmation has                    | been co                            | mpiled :              | on comments at                |

Product No. of set up No. of No. of times No. of spare materials materials parts orders handled

P 3 3 6 6 9 9 15 P 3 9 3

- Select a suitable cost driver for each item of overhead expense and calculate the cost per unit of cost driver.
- Using the concept of activity based costing, compute the factory cost per unit of each product.
- Critically evaluate strategic cost management issues in different elements of cost.
- 11. Elucidate the procedure for implementation and evaluation of kaizen costing
- Explain the benefits and problems of adoption of ABC system compared to traditional system.



### III Semester M.Com. Degree Examination, January 2018 (CBCS) COMMERCE

Paper - 3.4 AT: Strategic Cost Management - I

Time: 3 Hours

Max. Marks: 70

#### SECTION - A

- 1. Answer any seven sub-questions. Each sub-question carries 2 marks : (7×2=14)
  - a) Define strategic cost management.
  - b) What do you mean by value engineering?
  - c) What is meant by cost pool? Give an example.
  - d) What are cost phases of a mobile phone?
  - e) Define Kaizen costing.
  - f) Distinguish between cost accounting and cost management.
  - g) Define value.
  - h) What is facility level cost?
  - i) What is the use of experience curve in SCM?
  - j) What is lean cost management?

#### SECTION - B

Answer any four questions. Each sub-question carries 5 marks:

 $(4 \times 5 = 20)$ 

- 2. Briefly explain the role of in strategic planning and management control.
- 3. Explain the uses of business process re-engineering in cost management.
- 4. XYZ Company Ltd. has six departments, A, B, C, D, E and F, and has allocated manufacturing overhead using one cost pool based on direct labor hours. The accounting staff has provided the following estimates applicable to traditional and ABC allocation of manufacturing costs for 2004:

|                 | Cost       | Allocation Base       | Activity          |
|-----------------|------------|-----------------------|-------------------|
| Setups          | Rs. 16,500 | Number of setups      | 250 setups        |
| Quality Control | Rs. 24,000 | Number of inspections | 400 inspections   |
| Fabrication     | Rs. 36,000 | Production runs       | 3,600 runs        |
| Direct labor    | Rs. 90,000 | Direct labor hours    | 4,500 labor hours |

P.T.O.



III. Semester M. Com. Degree Examination, January 2018/107 Management is assessing if ABC should be used, and has determined that Department B used the following: 24 setups, 60 inspections, 900 production runs and 900 direct labor hours during 2004.

#### You are required:

- i) Determine how much overhead cost is allocated to Dept. B using traditional seven sub-questions. Each sub-question games & moitspolls (2=14)
  - ii) Using ABC, how much overhead cost is allocated to Dept. B?
  - iii) Which items are cost drivers?
  - iv) Which items are cost objects ? \_\_\_\_\_\_
- 5. What is total life cycle costing? Why is it important? nitrop nexts X ented
- 6. Bring out the procedure for implementation of kaizen costing.
- Distinguish between cost management and cost accounting.

### SECTION - Congregore to seu and at heavy (i

Answer any three questions. Each sub-question carries 12 marks: (3×12=36)

- 8. "Survival of a business firm in today's business environment is possible only when they are able to identify the areas cost management and use of different methods of cost management in managing them". Do you agree with the statement? Justify your answer with relevant examples.
- 9. Describe the strategic cost management issues in different elements of cost with suitable examples. no beand long tede and pro-
- 10. Fire Field Ltd., makes a single product a fire resistant commercial filing cabinet - that it sells to office furniture distributors. The company has a simple ABC system that it uses for internal decision making. The company has two overhead departments whose costs are listed below:

| Manufacturing overhead              | Rs. 5,00,000 |
|-------------------------------------|--------------|
| Selling and administrative overhead | Rs. 3,00,000 |
| Total overhead costs                | Rs. 8,00,000 |

Computed hit its, specializes in laying of placing The company's activity based costing system has the following activity cost pools and activity measures:

| Activity Cost Pool   | <b>Activity Measures</b> |
|----------------------|--------------------------|
| Assembling units     | Number of units          |
| Processing orders    | Number of orders         |
| Supporting customers | Number of customers      |
| Other                | Not applicable           |

Costs assigned to the "other" activity cost pool have no activity measure; they consist of the costs of unused capacity and organization-sustaining costs neither of which are assigned to products, orders or customers.

Fire field distributes the costs of manufacturing overhead and of selling and administrative overhead to the activity cost pools based on employee interviews, the results of which are reported below:

| Distribution of                     | Resource Cor     | sumption Ac          | ross Activity Co     | st Pools | 0.03101 |
|-------------------------------------|------------------|----------------------|----------------------|----------|---------|
|                                     | Assembling Units | Processing<br>Orders | Supporting Customers | Other    | Total   |
| Manufacturing overhead              | 50%              | 35%                  | 5%                   | 10%      | 1000/   |
| Selling and administrative overhead | 10%              | 45%                  | 25% 199              | 20%      | 100%    |
| Total activity                      | 1,000 units      | 250 orders           | 100 customers        | 300 olds | NAV.    |

- i) Perform the first stage allocation of overhead costs to the activity cost pools.
- ii) Compute activity rates for the activity cost pools.
- iii) Office Mart is one of the Ferris Corporation's customers. Last year OfficeMart ordered filing cabinet four different times. OfficeMart ordered a total of 80 cabinets during the year. Construct a table showing the overhead costs of these 80 units and four orders.



11. Computech Ltd., specializes in the manufacture of Computers. It is planning to introduce a new computer specially designed for children. Development of the New Computer is to begin shortly and Computech Ltd., is in the process of preparing a Product Life-Cycle Budget. It expects the new product to have a life-cycle of 3 years from the time of its introduction in the market before the computer becomes obsolete due to technological advancement of other competitive products.

Its expects the new product to have a life cycle of 3 years and estimates the following costs:

|                                      | Year 1            | Year 2     | Year 3        |
|--------------------------------------|-------------------|------------|---------------|
| Units manufactured and Sold          | 25,000            | 1,00,000   | 75,000        |
| Computers per batch                  | 40                | 50         | 50            |
| Price per Computer (Rs.)             | 4500              | 4000       | 3500          |
| R&D Cost (Rs.):                      | 450 lakhs         | 50 lakhs   | signed to     |
| Production Cost :                    |                   | n coating. | a pod opinia. |
| Variable cost per unit (Rs.)         | 1600              | 1500       | 1500          |
| Variable cost per batch (Rs.)        | 7000              | 6000       | 6000          |
| Fixed cost (Rs.)                     | 300 lakhs         | 300 lakhs  | 300 lakhs     |
| Marketing Cost :                     | ry denys sichting | a na man   |               |
| Variable cost per batch (Rs.)        | 360               | 320        | 280           |
| Fixed cost (Rs.)                     | 200 lakhs         | 150 lakhs  | 150 lakhs     |
| Distribution Cost :                  | e gallo cistar    | A DO NOR   | ligies int    |
| Units produced per batch (Rs.)       | 20                | 16         | 12° 0000      |
| Variable cost per unit (Rs.)         | 100               | 100        | 100           |
| Variable cost per batch (Rs.)        | 1200              | 1200       | 1000          |
| Fixed cost (Rs.)                     | 120 lakhs         | 120 lakhs  | 120 lakhs     |
| Customer service cost per unit (Rs.) | 200               | 150        | 150           |

You are required to:

- a) Calculate the budgeted life cycle operating profit for the new product.
- b) Explain how an organization would benefit from a product life cycle costing exercise.
- 12. Answer the following questions:
  - a) Business process re-engineering
  - b) Value analysis
  - c) Lean cost management.



# III Semester M.Com. Examination, January 2017 (CBCS) COMMERCE

Paper - 3.4AT : Strategic Cost Management - I

Time: 3 Hours

Max. Marks: 70

Instruction: Answer all the sub-sections.

#### SECTION - A

- 1. Answer any seven of the following. Each question carries two marks. (7x2=14)
  - a) State the key difference between cost accounting and cost management.
  - b) Define cost drivers.
  - c) Why do you think product life cycle is bell-shaped?
  - d) Differentiate cost control and cost reduction.
  - e) Define strategy.
  - f) What do you mean by target costing?
  - g) State the phases in product life cycle.
  - h) What do you mean by opportunity cost?
  - i) What do you mean by "Zero based budgeting"?
  - j) Define lean cost management.

#### SECTION - B

Answer any four of the following. Each question carries five marks.

 $(4 \times 5 = 20)$ 

- 2. What do you understand by cost drivers? Identify various cost drivers in textile industry.
- 3. "The concept of performance budgeting relates to greater management efficiency especially in government organisations" explain.



- 4. Define variance analysis. What are the ways of disposing cost variances?
- "Money spent on installing a costing system is not an expense but an investment" comment.
- 6. The worker is paid Rs. 50.00 per hour and the 5 days working week contains 42 hours. The daily allowance for approved absence from his place of work, maintenance of machine, etc., is 12 minutes and his job cards show that his time chargeable during the week to various cost centers is as follows:

Job No. 305 20 hours

Job No. 310 10 hours

Job No. 320 8 hours

Time unaccounted for is caused by a power failure. Show how for the week would be dealt in the cost accounts.

7. Kurolin express is a large manufacturer of recreational equipment. Performance of the camping division is measured as an investment centre because the managers make all the decisions about investments in operating equipment and space. Following is financial information for the provision:

Average operating assets Rs. 20,00,000

**Current liabilities** 

Rs. 5,00,000

Operating income

Rs. 3,00,000

Camping division's required rate of return is 12%, but outdoor express's weighted average cost of capital is 9% and the tax rate is 30%.

- a) Calculate ROI
- b) Calculate the residual income
- c) Calculate Economic Value Added (EVA).



#### SECTION-C

Answer any three of the following. Each question carries twelve marks. (3×12=36)

8. Alpha Limited has decided to analyse the profitability of its five new customers. It buys bottled water at Rs. 90 per case and sells to retail customers at a list price of Rs. 108 per case. The data pertaining to five customers are:

|                          |          |         |            | Customer | 'S         |           |
|--------------------------|----------|---------|------------|----------|------------|-----------|
|                          |          | A       | В          | C        | D          | E         |
| Cases sold               |          | 4,680   | 19,688     | 1,36,800 | 71,550     | 8,775     |
| List selling price       | F        | Rs. 108 | Rs. 108    | Rs. 108  | Rs. 108    | Rs. 108   |
| Actual selling price     | 1        | Rs. 108 | Rs. 106.20 | Rs. 99   | Rs. 104.40 | Rs. 97.20 |
| Number of purchase ord   | ers      | 15      | 25         | 30       | 25         | 30        |
| Number of customer visi  | ts       | 2       | 3          | 6        | 2          | 3         |
| Number of deliveries     |          | 10      | 30         | 60       | 40         | 20        |
| Kilometers travelled per | delivery | / 20    | 6          | 5        | 10         | 30        |
| Number of expedited de   | liveries | 0       | 0          | 0        | 0          | 1         |

Its five activities and their cost drivers are:

| Activity         | Cost Driver Rate           |
|------------------|----------------------------|
| Order taking     | Rs. 750 per purchase order |
| Customer visits  | Rs. 600 per customer visit |
| Deliveries       | Rs. 5.75                   |
| Product handling | Rs. 3.75 per case sold     |

Expedited deliveries Rs. 2,250 per expedited delivery

- i) Compute the customer-level operating income of each of five retail customers now being examined (A, B, C, D and E). Comment on the results.
- ii) What insights are gained by reporting both the list selling price and the actual selling price for each customer?
- iii) What factors Alpha Limited should consider in deciding whether to drop one or more of five customers?



9. A machine used on a production line must be replaced at least every four years. The costs incurred in running the machine according to its age are :

| Particulars          |       | Age of machine (years) |       | THE REAL PROPERTY. |       |
|----------------------|-------|------------------------|-------|--------------------|-------|
|                      | 0     | 1                      | 2     | 3                  | 4     |
| Purchase price       | 3,000 |                        |       |                    |       |
| Maintenance          |       | 800                    | 900   | 1,000              | 1,000 |
| Repairs              |       |                        | 200   | 400                | 800   |
| Net realizable value |       | 1,600                  | 1,200 | 800                | 400   |

Future replacement will be identical machines with the same costs. Revenue is unaffected by the age of the machine. Assume there is no inflation and ignore tax. The cost of capital is 15%. Determine the optimum replacement cycle. Present value factors at 15% for years 1, 2, 3 and 4 are 0.8696, 1.6257, 2.2832 and 2.8550 respectively.

- 10. Discuss the statement that "fixed overheads are constant within a limited range of output".
- 11. What do you understand by JIT? Explain how it eliminates wastage of resources.
- 12. What do you understand by cost reduction? "Cost reduction is the key for global competitiveness". Comment.



## III Semester M.Com. Examination, December 2015 (CBCS Scheme)

Paper - 3.4 AT : Strategic Cost Management - I

Time: 3 Hours

Max. Marks: 70

Instruction: Attend all the questions.

#### SECTION - A

 Answer any seven sub-questions of the following, each sub-question carries two marks:

 $(7 \times 2 = 14)$ 

- a) Differentiate cost control and cost reduction.
- b) Differentiate between cost management and cost accounting.
- c) State the steps in activity based costing.
- d) State the benefits of product life cycle.
- e) State the objectives of JIT.
- f) Define Kaizan costing.
- g) What are the benchmarking codes of conduct?
- h) What do you mean by LCC?
- i) What do you mean by cost drivers and cost pools?
- j) What do you mean by lean cost management?

#### SECTION-B

Answer any four questions of the following, each question carries five marks:

 $(4 \times 5 = 20)$ 

- 2. Define ABC. How ABC system supports corporate strategy?
- 3. Briefly explain how JIT eliminates wastage of resources.
- 4. How is Life Cycle Costing model selected and developed?
- 5. Briefly explain the steps in strategic cost management programme.
- 6. Bringout the main activities and cost drivers identified and implemented by J. Innes and F. Mitchell.



7. In organic Chemical Ltd., is about to replace its old boiler equipment, either by a coal fired system or by an oil-fired system. Finance costs 15% a year, and other estimated costs are as follows:

(Rs. '000)

| nsM.,xsM               | Coal   | Oil    |
|------------------------|--------|--------|
| Initial cost of Boiler | 70     | 100    |
| Annual operating costs | 60 p.a | 45 p.a |

If the company expected the new boiler system to last at least fifteen years, which system should be chosen? (PV of Annuity of Re. 1 at 15% for 15 years = 5.847)

#### SECTION-C

Answer any three of the following. Each question carries twelve marks: (3×12=36)

8. The Columbus Company produces only two products: a major computer part and cell phones. The company uses a normal cost system and overhead costs are currently allocated using a plant-wide overhead rate based on direct labor hours. Outside cost consultants have recommended, however, that the company use activity-based costing to charge overhead to products.

The company expects to produce 4,000 computer parts and 2,000 cell phones in 2014. Each computer part requires two direct labor hours to produce and each cell phone requires one-half hour to produce.

The direct material and direct labor costs included in the two products are as follows:

| Item .eeo;iii              | Computer Part | Cell-Phone |
|----------------------------|---------------|------------|
| Direct Material (per unit) | Rs. 3,000     | Rs. 1,700  |
| Direct Labor (per unit)    | Rs. 1,600     | Rs. 400    |



#### Budgeted (Estimated) Total Factory Overhead Data for 2014:

| Activity               | Budgeted Overhead Rs. | Estimated Volume<br>Level |
|------------------------|-----------------------|---------------------------|
| Production setups      | Rs. 80,00,000         | 20 setups                 |
| Material Handling      | Rs. 70,00,000         | 5,000 1bs.                |
| Packaging and shipping | Rs. 1,20,00,000       | 6,000 boxes               |
| Total Factory Overhead | Rs. 2,70,00,000       | Net realizable val        |

Based on an analysis of the three overhead activities, it was estimated that the two products would require these activities as follows in 2014:

| Activity               | Computer Parts | Cell Phones | Overall Totals 20 setups |  |
|------------------------|----------------|-------------|--------------------------|--|
| Production setups      | 5 setups       | 15 setups   |                          |  |
| Material<br>handling   | 11 000 1hs     |             | 5,000 1bs.               |  |
| Packaging and shipping | 4,000 boxes    | 2,000 boxes | 6,000 boxes              |  |

- a) Calculate the cost of each product using a plant-wide rate based on direct labor hours.
- b) Calculate the activity cost rates for (a) setups, (b) material handling and (c) packaging and shipping.
- c) Cost out the two products using an activity-based costing system.



9. A machine used on a production line must be replaced at least every four years.
The costs incurred in running the machine according to its age are:

aR beemevO belet (Rs.)

| Particulars          | Age of machine (Years) |                               |        |       |         |  |
|----------------------|------------------------|-------------------------------|--------|-------|---------|--|
| Equito 0.5           | 0                      | 1                             | 2      | 3     | 4       |  |
| Purchase price       | 3,000                  | Rs. <u>R</u> Q <sub>3</sub> C | 45 p.a |       | nilbnal |  |
| Maintenance          | cted the               | 800                           | 900    | 1,000 | 1,000   |  |
| Repairs              | 5000.0                 | 1,09 tyre                     | 200    | 400   | 800     |  |
| Net realizable value |                        | 1,600                         | 1,200  | 800   | 400     |  |

Future replacement will be identical machines with the same costs. Revenue is unaffected by the age of the machine. Assume there is no inflation and ignore tax. The cost of capital is 15%. Determine the optimum replacement cycle. Present value factors at 15% for years 1, 2, 3, 4 are 0.8696, 0.7561, 0.6575 and 0.5718 respectively. Present value of annuity at 15% for years 1, 2, 3 and 4 are 0.8696, 1.6257, 2.2832 and 2.8550 respectively.

- 10. What are the objectives of JIT approach? Is JIT responsible for bringing changes in a firm-Explain.
- 11. Explain how life cost analysis is prepared, implemented and monitored.
- 12. What do you mean by Benchmarking? Describe main types of benchmarking of critical success factor.