SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)
(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.
M.Com.A&F- END SEMESTER EXAMINATIONS - APRIL 2025
SEMESTER - II
23PAFCT2005 - Strategic Cost Management

Total Duration : 2 Hrs. 30 Mins. Total Marks : 60

Section B

Answer any **SIX** questions $(6 \times 5 = 30$ Marks)

1. Differentiate between strategic cost management vs traditional cost management system.
2. Narrate the significance of Kaizen Costing System.
3. A hospital is considering purchasing two different types of medical imaging machines: Machine A and Machine B. Both machines have the same functionality and performance, but they differ in their initial purchase price, operating costs, and lifespan.
   Machine A:
   - Initial purchase price: $100,000
   - Operating costs: $5,000 per year
   - Lifespan: 5 years
   - Residual value: $20,000

   Machine B:
   - Initial purchase price: $80,000
   - Operating costs: $7,000 per year
   - Lifespan: 7 years
   - Residual value: $15,000

   Which machine has the lower Life Cycle Cost?
4. A manufacturing company is considering investing in a new production line to produce a high-demand product. The company wants to evaluate the potential return on investment (ROI) of the new production line, but there are several uncertainties involved:
   - Demand for the product: The company estimates that the demand for the product will be between 100,000 and 150,000 units per year, with a most likely value of 125,000 units.
   - Production costs: The company estimates that the production costs will be between $10 and $15 per unit, with a most likely value of $12.50 per unit.
   - Selling price: The company estimates that the selling price will be between $20 and $25 per unit, with a most likely value of $22.50 per unit.

Contd...

The company wants to use Monte Carlo simulation to estimate the potential ROI of the new production line. The company's financial analysts have developed a model that takes into account the uncertainties in demand, production costs, and selling price.
What is the estimated ROI of the new production line, and what is the probability that the ROI will exceed 20%?

5. Hertz, a car rental company, is considering two different options for its fleet of cars:
   Option 1: Purchase cars outright and own them for 5 years.
   Option 2: Lease cars for 5 years.
   The company wants to use the Hertz Simulation Model to compare the costs of these two options and determine which one is more cost-effective.
   - Purchase price of a car: $25,000
   - Annual maintenance cost: $2,000
   - Annual insurance cost: $1,500
   - Lease cost per year: $10,000
   - Residual value of a car after 5 years:$10,000
   - Discount rate: 10%
   Which option is more cost-effective for Hertz, and what is the difference in costs between the two options?

6. Differentiate between cost control Vs cost reduction with suitable examples.

7. Summarize the features of cost structure in agriculture sector.

8. Present the cost structure of information technology sector.

Section C

I - Answer any **TWO** questions $(2 \times 10 = 20$ Marks)

9. Explain how a company can use Value Chain Analysis to identify areas of cost savings and improve its overall profitability.

10. Discuss the importance of Pareto Analysis in decision-making, illustrating its use in prioritizing problems and optimizing resource allocation.

11. A construction company is planning to build a new office building with a lifespan of 50 years. The company wants to evaluate the Life Cycle Cost (LCC) of the building to determine the most cost-effective design and construction options.
    - Initial construction cost: $10 million
    - Annual maintenance cost: $50,000
    - Annual energy cost: $100,000
    - Annual repair cost: $20,000
    - Replacement cost of HVAC system after 20 years: $500,000

Contd...

- Replacement cost of roofing system after 30 years: $750,000
- Residual value of the building after 50 years: $2 million
- Discount rate: 8%

What is the Life Cycle Cost of the building, and which design and construction options would minimize the LCC?

12. Ganobi, a car rental company, is considering a new strategic initiative to reduce costs and improve profitability. The company wants to evaluate the cost-effectiveness of two different options:

    Option 1: Implement a new fleet management system that will reduce annual fleet maintenance costs by 15% and improve fuel efficiency by 10%.

    Option 2: Outsource its fleet maintenance operations to a third-party provider, which will reduce annual fleet maintenance costs by 20% but increase fuel costs by 5%.

    The company has the following data:
    - Annual fleet maintenance costs: $10 million
    - Annual fuel costs: $5 million
    - Fleet size: 10,000 vehicles
    - Average vehicle utilization rate: 80%
    - Average vehicle age: 2 years
    - Vehicle replacement cycle: 5 years
    - Discount rate: 12%

    Which option is more cost-effective for Hertz, and what is the net present value (NPV) of the cost savings over the next 5 years?

II - Compulsory question $(1 \times 10 = 10$ Marks)

13. Compare and contrast the cost structure and cost management strategies in the Agriculture, highlighting the role of Minimum Support Price in agriculture.

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