Question Paper

Management Accounting – II (MB162): July 2008

- **Answer all 71 questions.**
- **Marks are indicated against each question.**

Total Marks : 100

<Answer>

1. If the machine hours is a key factor, the products to be produced should have

(a) Highest sales price per unit
(b) Highest contribution per unit
(c) Lowest machine hours per unit
(d) Highest sales volume potential
(e) Highest contribution per machine hour. **(1 mark)**

<Answer>

2. Relevant costs are

(a) All fixed costs
(b) All variable costs
(c) Costs that would be incurred within the relevant range of production
(d) Anticipated future costs that will differ among various alternatives
(e) Past costs that are expected to be different in the future. **(1 mark)**

<Answer>

3. While considering a special order which enables a company to make use of current idle capacity, the irrelevant cost in decision making is

(a) Direct materials
(b) Direct labor
(c) Depreciation
(d) Variable manufacturing overhead
(e) Variable selling overhead. **(1 mark)**

<Answer>

4. The relevance of a particular cost to a decision is determined by the

(a) Basis of apportionment of cost
(b) Size of the cost
(c) Riskiness of the decision
(d) Accuracy of the cost
(e) Potential effect on the decision. **(1 mark)**

<Answer>

5. The objective of standard costing is to

(a) Determine profitability of a product
(b) Determine break-even production level
(c) Control costs
(d) Allocate costs with more accuracy
(e) Eliminate the need for subjective decisions by management. **(1 mark)**

<Answer>

6. Tapathi Ltd., has furnished the following cost details for the month of June 2008:

Standard wages cost per unit	:	4 hours at the rate of Re.0.50 per hour
Actual production	:	4,000 units
Actual wages paid	:	17,000 hours at the rate of Re.0.45 per hour

The labor rate variance ratio is

(a) 0.96
(b) 1.06
(c) 1.11
(d) 0.90
(e) 0.94. **(2marks)**

<Answer>

7. Consider the following information pertaining to Tricks Ltd., for the month of June 2008:

Particulars	Actual	Budget
Sales (Units)	21,800	23,000
Sales Revenue (Rs.)	2,94,300	2,93,250

The sales price variance for the month was

(a) Rs. 1,050 (Adverse) **(2marks)**

(b) Rs. 1,050 (Favorable)
(c) Rs.16,350 (Favorable)
(d) Rs.16,350 (Adverse)
(e) Rs.16,200 (Favorable).

<Answer>

8. Which of the following is **not** a cause for Material Usage Variance?

(a) Sub-standard materials
(b) Pilferage of materials
(c) Non-standard material mixture
(d) Wastage due to inefficient mixture
(e) Purchasing in non-standard lots. **(1 mark)**

<Answer>

9. The number of standard hours equivalent to the work produced, expressed as a percentage of the budgeted standard hours is known as

(a) Efficiency ratio
(b) Activity ratio
(c) Calendar ratio
(d) Capacity usage ratio
(e) Capacity utilization ratio. **(1 mark)**

<Answer>

10. Consider the following data pertaining to Ananth Ltd., for 300 units of product-S which requires two raw materials – A and B:

Standard material cost per unit:

Material A - 6 kg at the rate of Rs.21

Material B - 4 kg at the rate of Rs.38

Materials issued:

Material A - 1,920 kg at a cost of Rs.41,088

Material B - 1,160 kg at a cost of Rs.44,950

The total material usage variance is

(a) Rs.4,040 (Adverse)
(b) Rs.4,040 (Favorable)
(c) Rs.1,000 (Adverse)
(d) Rs.1,000 (Favorable)
(e) Rs.2,520 (Adverse). **(2marks)**

<Answer>

11. Which of the following statements is **false** with regard to Target Costing?

(a) Target costs are based on external analysis of markets and competitors
(b) Target costing is a cost management tool which reduces a product's costs over its entire life cycle
(c) It is difficult to use target costing with complex products that require many sub-assemblies
(d) Target cost is the budgeted cost plus the desired markup
(e) Target costing is used to control costs before the company incurs any production costs. **(1 mark)**

<Answer>

12. Which of the following factors need **not** be considered in determining the period of the short-term budget?

(a) The period of complete production cycle of a product
(b) The advice of the staff of all the departments
(c) For seasonal business, the period of one complete seasonal cycle
(d) The time to arrange the funds for production and other purposes
(e) The coincidence of financial accounting period with budget period. **(1 mark)**

<Answer>

13. While preparing a performance report for a cost center using flexible budgeting techniques, the planned cost column should be based on

(a) Cost incorporated in the master budget
(b) Budgeted amount in the original budget prepared before the beginning of the period
(c) Budget adjusted to the actual level of activity for the period being reported
(d) Actual amount for the same period in the preceding year
(e) Budget adjusted to the planned level of activity for the period being reported. **(1 mark)**

<Answer>

14. The phase in product life cycle, where intensified marketing efforts may prolong the period of maturity, but only by increasing costs disproportionately is referred to as

(1 mark)

(a) Introduction phase
(b) Growth phase
(c) Maturity phase
(d) Saturation phase
(e) Decline phase.

<Answer>

15. Which of the following **does not** lead to an increase in the return on investment?

(a) Increase in sales volume
(b) Increase in selling price
(c) Increase in operating assets
(d) Reduction in variable costs
(e) Reduction in fixed costs. **(1 mark)**

<Answer>

16. A favorable materials price variance coupled with an unfavorable materials usage variance would most likely result from

(a) The purchase of lower than standard quality materials
(b) The purchase and use of higher than standard quality materials
(c) Product mix changes
(d) Machine efficiency problems
(e) Labor efficiency problems. **(1 mark)**

<Answer>

17. The difference between the budget amount and the best estimate is called

(a) Variance
(b) Contingency provision
(c) Slack
(d) Standard error
(e) Probability. **(1 mark)**

<Answer>

18. In developing a system of transfer pricing for any particular situation, which of the following circumstantial factors need **not** be considered?

(a) Existence of competitive market
(b) Sourcing constraint
(c) Movability constraint
(d) Quantum of transfers
(e) Capacity level of selling division. **(1 mark)**

<Answer>

19. The following information pertains to Bobby Ltd., for its product RS:

Production units	22,500 units
Investment for the product	Rs.6,00,000
Fixed costs	Rs.2,70,000
Variable cost per unit	Rs.34

If the company desires to earn 15% return on investment, the selling price should be

(a) Rs.55.00
(b) Rs.50.00
(c) Rs.60.00
(d) Rs.45.00
(e) Rs.40.00. **(2 marks)**

<Answer>

20. Which of the following is **true** in respect of full cost pricing method?

(a) It is used to recover market price plus mark-up
(b) It is used to recover standard cost plus mark-up
(c) It is used to recover fixed costs only
(d) It is used to recover variable costs only
(e) It is used if a company does not have the basic idea of demand for the product. **(1 mark)**

<Answer>

21. Gayathri Ltd., manufactures 600 units of product T during a specified period. The variable cost per unit and fixed costs per annum are Rs.40 and Rs.60,000 respectively. If the company expects an annual profit of Rs.21,000, the mark-up percentage on variable cost is

(a) 237.50%
(b) 372.50%
(c) 303.35%
(d) 337.50%
(e) 236.75%. **(2 marks)**

(e) 236.75%.

<Answer>

22. Consider the following costs per unit of product A of Sharada Ltd.:

Direct material	Rs.30
Direct labor	Rs.20
Production overheads	Rs.35 (80% fixed)
Selling & administrative overheads	Rs.60 (50% fixed)
Total costs	Rs.145
Normal Production	1,600 units

If the company manufactures 1,450 units of Product A, the fixed cost per unit would be

(a) Rs.58
(b) Rs.64
(c) Rs.28
(d) Rs.30
(e) Rs.54. **(2marks)**

<Answer>

23. Anil Manufacturing Ltd., has furnished the following information for the month of June 2008:

Particulars	Budget	Actual
Output in units	6,000	6,400
Labor hours	3,000	3,200
Variable overhead costs	Rs.54,000	Rs.56,400

The variable overhead cost variance is

(a) Rs.1,200 (Favorable)
(b) Rs.1,200 (Adverse)
(c) Rs.2,400 (Favorable)
(d) Rs.2,400 (Adverse)
(e) Rs.3,600 (Favorable). **(2marks)**

<Answer>

24. A segment of an organization is referred to as a profit center if it has

(a) Responsibility for developing markets and selling the output of the organization
(b) Responsibility for combining materials, labor and other factors of production into a final output
(c) Authority to make decisions affecting the major determinants of profit, including the power to choose its markets and sources of supply
(d) Authority to provide specialized support to other units within the organization
(e) Authority to make decisions affecting the major determinants of profit, including the power to choose its markets and sources of supply and significant control over the amount of invested capital. **(1 mark)**

<Answer>

25. Vinayak Ltd., has invested a capital of Rs.10,00,000. The company expects a 15% rate of return on capital. The company is currently producing and selling 25,000 units of products at a total cost of Rs.4,00,000. What would be the desired selling price per unit, if the company uses Return On Investment (ROI) pricing policy?

(a) Rs. 8.40
(b) Rs.22.00
(c) Rs.16.00
(d) Rs. 6.00
(e) Rs.56.00. **(2marks)**

<Answer>

26. Suraj Ltd., has furnished the following information relating to cost at a capacity level of 12,000 units:

Particulars	Rs.
Prime cost	1,59,000 (100% variable)
Repairs and maintenance	8,000 (75% variable)
Depreciation	14,900 (100% fixed)
Administration and selling overheads	30,000 (50% variable)

The budgeted total cost per unit, at the level of 11,000 units, is

(2marks)

(d) Rs.17.00
(e) Rs.17.90.

<Answer>

27. Shakthi Ltd., manufactures two products – M and N, using same facilities and similar process. The company has furnished the following information pertaining to two products for the period ending June 30, 2008:

Particulars	Product M	Product N
Direct labor hours per unit	6	3
Machine hours per unit	8	5
Number of set ups during the period	16	24
Number of orders handled during the period	20	25
Production units	5,000	4,000

Total production overhead costs for the period are as follows:

Particulars	Rs.
Machine activity costs	3,60,000
Set-ups costs	80,000
Order handling costs	58,500
	4,98,500

The absorption of total production overhead costs of product M on the basis of a suitable cost driver, using Activity Based Costing method, is

(a) Rs.2,98,000
(b) Rs.2,40,000
(c) Rs.2,00,500
(d) Rs.2,98,820
(e) Rs.2,98,720. **(2 marks)**

<Answer>

28. Which of the following statements is **false** in relation to budgets?

(a) Direct labor budget represents direct labor requirements necessary to produce the types and quantities of output planned in the production budget
(b) An inventory budget can be prepared to find out the values of direct materials and finished inventory
(c) A fixed budget is a budget that is prepared for a range, i.e. for more than one level of activity
(d) A direct material budget indicates the expected amount of direct material required to produce the budgeted units of finished good
(e) Direct labor cost budget consist of wages payable to employees who are engaged directly in specific production output. **(1 mark)**

<Answer>

29. Dayora Ltd., has furnished the following data pertaining to its product during the month of June 2008:

Particulars	Budget	Actual
Fixed overhead	Rs.48,000	Rs.46,200
Production units	1,200 units	1,224 units

The fixed overhead volume variance is

(a) Rs.1,800 (Favorable)
(b) Rs.1,800 (Adverse)
(c) Rs.2,760 (Favorable)
(d) Rs. 960 (Adverse)
(e) Rs. 960 (Favorable). **(2 marks)**

<Answer>

30. The data relating to Rangoli Ltd., for the month of June 2008 were as follows:

Output (Units)	10,000
Material used 8,000 kg (Rs.)	72,000
Material price variance (Rs.)	2,600 (Adverse)
Material usage variance (Rs.)	8,600 (Favorable)

The standard material cost per unit is

(a) Rs.7.80
(b) Rs.6.60
(c) Rs.7.20
(d) Rs.8.32
(e) Rs.6.80. **(2 marks)**

<Answer>

31. If Ram Charan Ltd., desires to earn a 20% profit margin on selling price, the profit mark up on cost of the company is **(1 mark)**

the company is

(a) 15%
(b) 20%
(c) 25%
(d) 30%
(e) 35%.

<Answer>

32. Which of the following statements is **false** with respect to Total Quality Control (TQC)?

(a) TQC is a management process based on the belief that quality costs are minimized with zero defects
(b) The proponents of TQC advocate that 'quality is free'
(c) TQC ends with the design and engineering of the product
(d) TQC is often associated with JIT (Just In Time) manufacturing
(e) TQC is sometimes referred to as TQM (Total Quality Management). **(1 mark)**

<Answer>

33. Dinny Ltd., is preparing its cash budget for the forthcoming period. An extract from its sales budget for the period shows the following sales values:

July 2008	Rs.2,22,000
August 2008	Rs.2,40,000
September 2008	Rs.2,62,500
October 2008	Rs.2,82,000

25% of its sales are expected to be for cash. Of its credit sales, 50% are expected to be recovered in the month following the month of sales, 45% are expected to be recovered in the second month following the month of sales and 5% are expected to be unrecovered. The cash receipts for the month of September 2008 would be

(a) Rs.2,54,560
(b) Rs.2,30,550
(c) Rs.2,03,550
(d) Rs.1,96,875
(e) Rs.2,45,625. **(2 marks)**

<Answer>

34. A systematized approach known as zero-based budgeting (ZBB)

(a) Presents the plan for only one level of activity and does not adjust to change in the level of activity
(b) Presents a statement of expectations for a period of time but does not present a firm commitment
(c) Presents a technique where each activity to be funded must be justified every time a new budget is prepared
(d) Classifies budget requests by activity and estimates the benefits arising from each activity
(e) Emphasizes on the accomplishment of specific goals over a period of time. **(1 mark)**

<Answer>

35. Which of the following may be considered as an independent item in the preparation of the master budget?

(a) Production budget
(b) Capital investment budget
(c) Proforma income statement
(d) Proforma statement of financial position
(e) Overhead expenses budget. **(1 mark)**

<Answer>

36. The variance created to segregate the difference due to a new factor like a steep rise in price of material, is known as

(a) Revision variance
(b) Uncontrollable variance
(c) Price variance
(d) Favorable variance
(e) Efficiency variance. **(1 mark)**

<Answer>

37. Management by exception is **best** defined as

(a) Choosing exceptional managers
(b) Controlling actions of subordinates through acceptance by them of management techniques **(1 mark)**
(c) Investigating unfavorable variances

(c) Investigating unfavorable variances
(d) Devoting management time to follow-up on significant variances
(e) Controlling costs so that non-zero variances are quite exceptional.

<Answer>

38. Bhupathi Ltd., has furnished the following data for the month of June 2008:

Particulars	Budget	Actual
Labor hours	3,000 hours	2,760 hours
Units produced	12,000 units	11,680 units

If the standard variable overhead rate per hour is Rs.3.50, the variable overhead efficiency variance was

(a) Rs.300 (Favorable)
(b) Rs.560 (Adverse)
(c) Rs.560 (Favorable)
(d) Rs.840 (Favorable)
(e) Rs.840 (Adverse). **(2 marks)**

<Answer>

39. Consider the following details pertaining to Tataji Ltd., for the month of June 2008:

Particulars	Rs.
Sales	1,35,000
Direct materials	48,000
Direct labor	22,500
Variable overheads	12,000
Capital employed	1,20,000

If the return on investment in June 2008 is 15%, the fixed overhead costs for the month were

(a) Rs.52,500
(b) Rs.18,000
(c) Rs.43,500
(d) Rs.34,500
(e) Rs.30,000. **(2 marks)**

<Answer>

40. If the selling sub-unit is operating at full capacity and can sell everything produced either internally or externally, the transfer price of the product will be fixed up on the basis of

(a) Negotiation between the divisions
(b) Market price
(c) Variable cost
(d) Cost plus a mark-up
(e) Full cost pricing. **(1 mark)**

<Answer>

41. Anju Ltd., has furnished the following information pertaining to its business for a period:

Sales	Rs. 3,90,000
Variable costs	Rs. 2,16,000
Traceable fixed costs	Rs. 56,000
Average invested capital	Rs. 2,10,000
Imputed interest rate	18%

The residual income of the company is

(a) Rs.1,18,000
(b) Rs. 90,200
(c) Rs. 80,200
(d) Rs. 96,800
(e) Rs. 80,600. **(2 marks)**

<Answer>

42. Triangle Ltd., has furnished the following budgeted and actual sales for the month of June 2008:

Particulars	Budget	Actual
Units sold	4,000 units	4,200 units
Sale price	Rs.65 per unit	Rs.62 per unit

The sales volume variance is

(2 marks)

(e) Rs.12,400 (Favorable).

<Answer>

43. Hema Ltd., has provided the following projections for the month of August 2008:

Sales	Rs.6,00,000
Gross profit margin	30%
Increase in inventories	Rs. 35,000
Increase in accounts payable	Rs. 19,000

The amount of cash disbursement for the month of August 2008 would be

(a) Rs.6,00,000
(b) Rs.5,84,000
(c) Rs.6,54,000
(d) Rs.4,36,000
(e) Rs.4,04,000. **(2marks)**

<Answer>

44. Arvind Ltd., manufactures a single product with a capacity of 2,00,000 units per annum. The company has furnished the following income statement for the year 2007-08:

Particulars	Rs.	Rs.
Sales (1,50,000 units @ Rs.14 per unit)		21,00,000
Total variable cost	9,37,500	
Total fixed overheads	8,20,000	
Total costs		17,57,500
Profit		3,42,500

If the company desires to increase the present level of sales from 1,50,000 units to 1,75,000 units at a price of Rs.16 per unit, by increasing an expenditure of Rs.3,40,000 on advertising, the profit of the company will be

(a) Rs.8,86,250
(b) Rs.5,46,250
(c) Rs.5,64,250
(d) Rs.6,20,800
(e) Rs.5,80,000. **(2marks)**

<Answer>

45. Vanitha Manufacturing Ltd., currently uses the company's budget only as a planning tool. Management has decided that it would be beneficial to use budgets for control purposes also. In order to implement this change, the management accountant must

(a) Appoint a budget director
(b) Organize a budget committee
(c) Develop forecasting procedures
(d) Integrate all aspects like budgeting and accounting system of the enterprise
(e) Change the organization structure. **(1 mark)**

<Answer>

46. Which of the following statements is **false** in respect of activity based costing?

(a) It does not segregate variable and fixed costs
(b) It tends to be more costly than the traditional methods of costing
(c) It deals with the prime costs and variable overhead costs only
(d) It highlights the causes of costs
(e) It is based on historical costs. **(1 mark)**

<Answer>

47. The most common measurement of performance of revenue center is

(a) Return on investment
(b) Sales margin
(c) Margin of safety
(d) Capital turnover
(e) Return on equity. **(1 mark)**

<Answer>

48. An organized creative approach, which emphasizes efficient identification of unnecessary cost is known as

(a) Management by objective
(b) Value analysis
(c) Zero-based budgeting
(d) Activity based costing
(e) Quality costing. **(1 mark)**

<Answer>

49. 'The average human being has an inherent dislike of work and will avoid it if he can' - this job attitude is specifically dealt with in

(a) Herzberg's Two Factor Theory
(b) Douglas McGregor's Theory Y
(c) The principles of human motivation as revealed by Abraham Maslow
(d) Douglas McGregor's Theory X
(e) McDonald's Theory Z. **(1 mark)**

<Answer>

50. Consider the following particulars pertaining to Vardhaman Ltd., for the month of June 2008:

Overheads cost variance	Rs. 2,025 (Adverse)
Overheads volume variance	Rs. 865 (Adverse)
Budgeted overheads for June 2008	Rs.18,000

The actual overhead costs incurred by the company for the month was

(a) Rs.16,840
(b) Rs.17,720
(c) Rs.19,160
(d) Rs.16,140
(e) Rs.17,200. **(2 marks)**

<Answer>

51. Division A of Balaji Manufacturing Ltd., transfers parts to Division B of the same organization. The cost to Division A for providing the parts to Division B is Rs.65 per unit. With an additional cost of Rs.32 per unit, Division B sells the units to an outside party for Rs.190 per unit. What transfer price will provide a profit of Rs.48 per unit to Division B?

(a) Rs. 45
(b) Rs. 77
(c) Rs.110
(d) Rs. 80
(e) Rs. 97. **(2 marks)**

<Answer>

52. Which of the following pricing techniques considers only variable cost?

(a) Return on investment based pricing
(b) Contribution margin approach pricing
(c) Standard cost based pricing
(d) Cost plus profit pricing
(e) Negotiated transfer pricing. **(1 mark)**

<Answer>

53. Consider the following data pertaining to the division of Sujatha Ltd., for a period:

Investment in working capital	Rs.2,00,000
Investment in fixed assets	Rs.5,00,000
Total cost of production	Rs.4,00,000
Imputed interest cost	10%

If the company desires to achieve a residual income of Rs.1,75,000, the revenue of the division would be

(a) Rs.6,54,000
(b) Rs.5,46,000
(c) Rs.5,95,000
(d) Rs.5,75,000
(e) Rs.6,45,000. **(2 marks)**

<Answer>

54. Which of the following costs is **not** considered in Activity Based Costing?

(a) Direct labor costs
(b) Set-up costs
(c) Material handling costs
(d) Inspection costs
(e) Processing of production order costs. **(1 mark)**

<Answer>

55. In value chain analysis, the primary activities are those that are directly concerned with creating and delivering a product. Which of the following activities is **not** a primary activity in value chain analysis?

(a) Inbound logistics **(1 mark)**

(b) Outbound logistics
(c) Operations
(d) Human Resource Management
(e) Marketing and sales.

<Answer>

56. Cosmos Ltd., manufactures product UV which requires two raw materials – X and Y. One unit of finished product requires 25 kg of raw material. The standard mix is as follows:

Material X	5 kg at a cost of Rs.10
Material Y	20 kg at a cost of Rs. 60

During a period, the product was produced at the following costs:

Material X	6,000 kg at a cost of Rs.12,000
Material Y	26,000 kg at a cost of Rs.83,200

The material mix variance for the period was

(a) Rs. 400 (Adverse)
(b) Rs. 400 (Favorable)
(c) Rs. 800 (Favorable)
(d) Rs. 800 (Adverse)
(e) Rs.1,200 (Adverse). **(2marks)**

<Answer>

57. Two companies – Bright Ltd., and Light Ltd., are competitors in the Electronics Industry. Basic comparative data of the two companies for the year 2007-08 are as follows:

Company	Operating assets (Rs.)	Operating costs (Rs.)	Net sales (Rs.)
Bright Ltd.	20,00,000	30,00,000	35,00,000
Light Ltd.	50,00,000	10,00,000	25,00,000

The returns on capital employed of Bright Ltd., and Light Ltd., were

(a) 20% and 25% respectively
(b) 25% and 30% respectively
(c) 20% and 10% respectively
(d) 20% and 30% respectively
(e) 30% and 25% respectively. **(2marks)**

<Answer>

58. Jesudas Ltd., has two divisions – the Machining division and the Assembly division. The Machining division which is operating at full capacity manufactures and sells 31,250 units of component S, in a perfectly competitive market. The revenue and cost data of component S are as follows:

Particulars	Rs.
Variable cost per unit	10
Fixed cost	5,62,500
Sales value	12,50,000

The Assembly division received an order for supplying Product SM for which it requires component S. The minimum transfer price that should be charged by Machining division to Assembly division is

(a) Rs.40.00
(b) Rs.54.00
(c) Rs.72.00
(d) Rs.60.00
(e) Rs.80.00. **(2marks)**

<Answer>

59. Which of the following would be the last item to be prepared in the normal budget preparation process?

(a) Sales budget
(b) Cash budget
(c) Direct labor budget
(d) Cost of goods sold budget
(e) Manufacturing overhead budget. **(1 mark)**

<Answer>

60. Malvi Ltd., uses standard cost system. The following information pertains to direct labor for product Z for the month of June 2008:

Standard hours allowed for actual production	4,800
Actual rate paid per hour	Rs.16
Standard rate per hour	Rs.14

(2marks)

Standard rate per hour	Rs.14
Labor efficiency variance	Rs.2,800 (Favorable)

The actual labor hours worked for the month was

(a) 4,600
(b) 4,450
(c) 4,756
(d) 4,845
(e) 4,780.

<Answer>

61. The cash inflows in the cash budget include

(a) Funded depreciation
(b) Operating supplies
(c) Extinguishment of debts
(d) Loan proceeds
(e) Amortization of preliminary expenses. **(1 mark)**

<Answer>

62. Comparing performance report of the top level management with that of the lower level management is an important part of an overall organization structure. Which of the following statements is **true** with respect to performance measurement report?

(a) Top level management reports are detailed
(b) Top level management reports show control over fewer costs
(c) Lower level management reports are typically for longer periods
(d) Top level management reports are usually not of the exception type but present a complete analysis of all variances
(e) Lower level management reports are likely to contain more quantitative data and less financial data. **(1 mark)**

<Answer>

63. Madhu Ltd., is engaged in the production of garments. The workers of the company are working at the efficiency ratio of 124%. The actual hours worked are 6,400 hours. The standard hours for actual production is

(a) 6,496 hours
(b) 6,963 hours
(c) 7,357 hours
(d) 8,926 hours
(e) 7,936 hours. **(2marks)**

<Answer>

64. Kranthi Ltd., produces and sells 800 units of product H each month with total variable costs of Rs.16,000 and total fixed costs of Rs.24,000. Idle capacity would permit the acceptance of a special order for 200 units each month. If the special order is accepted, the average unit cost per month of producing and selling the total output, would be

(a) Rs.50
(b) Rs.40
(c) Rs.44
(d) Rs.47
(e) Rs.45. **(2marks)**

<Answer>

65. To identify the interrelationships between key activities and resources consumed is a part of the

(a) Activity Based Costing method of cost allocation
(b) Classification of costs as either fixed, variable or semi-fixed
(c) Absorption costing method
(d) Step-down method to allocate cost pools from one service department to other service departments
(e) Reciprocal services method. **(1 mark)**

<Answer>

66. If the activity level is increased from 75% to 80%, the fixed cost

(a) Will reduce by 5%
(b) Will increase by 5%
(c) Per unit will reduce
(d) Per unit will reduce by 5%
(e) Per unit will increase by 5%. **(1 mark)**

<Answer>

67. The opportunity cost of making a component part in a factory with no excess capacity is the

(a) Total manufacturing cost of the component
(b) Fixed manufacturing cost of the component
(c) Variable manufacturing cost of the component
(d) Net benefit given up from the best alternative use of the capacity
(e) Cost of production given up in order to manufacture the component. **(1 mark)**

<Answer>

68. Prabhu Ltd., manufactures two products – C and D. The company has furnished the following data relating to the products:

Particulars	Product C (Rs.)	Product D (Rs.)
Variable cost per unit	45.00	57.00
Fixed cost per unit	25.00	37.00
Total cost	70.00	94.00

The company has received the following price quotations for the two products from a supplier:

Product	Rs. per unit
C	55.00
D	50.00

Which of the following decisions should be considered by the company?

(a) Make both the products
(b) Buy both the products
(c) Make Product D and buy Product C
(d) Make Product C and buy Product D
(e) Insufficient information for making decision. **(2 marks)**

<Answer>

69. Which of the following is **not** a major consideration while setting the price of a product?

(a) The cost of the product
(b) The desired profit
(c) Competitor's price of the product
(d) The price of the other different products in the same company
(e) The demand for the product at that particular price. **(1 mark)**

<Answer>

70. The critical test of profitability of a decentralized segment is

(a) The absolute amount of profit
(b) The relationship of costs to sales
(c) The relationship of profit to sales
(d) The relationship of profit to invested capital
(e) The relationship of profit to the number of employees. **(1 mark)**

<Answer>

71. In a make or buy decision, the relevant costs include

(a) Avoidable fixed costs plus fixed manufacturing costs
(b) Variable manufacturing costs plus total fixed costs
(c) Variable manufacturing costs plus unavoidable fixed costs
(d) Avoidable fixed costs plus variable manufacturing costs
(e) Total fixed costs plus total variable costs. **(1 mark)**

END OF QUESTION PAPER

Suggested Answers

Management Accounting – II (MB162): July 2008

	Answer	Reason
1.	E	Where the machine hours is a key factor, the products to be produced should have highest contribution per machine hour. <

2. D Relevant costs are the costs which are relevant or pertinent to the decision. In decision making, the relevancy of cost data takes on a special meaning. It exhibits two fundamental characteristics – it must be future and it must differ between alternatives. Other costs mentioned in (a), (b), (c) and (e) are not correct answers. Hence (d) is the answer. ≤

3. C The correct answer is (c) because deprecation will be expensed whether or not the company accepts the special order; it is irrelevant to the decision. Only the variable costs are relevant hence answer (a), (b), (d) and (e) are not correct. ≤

4. E Managerial decisions should be based on the relevant revenues and costs. Hence, a relevant cost or revenue has the ability to affect the decision made. ≤

(a) and (b) are not correct because the size and nature of the cost is irrelevant if the cost does not affect the decision process.

(c) is not correct because the riskiness of the decision is irrelevant if the cost does not affect the decision process. (d) is not correct answer because some estimates of the cost must be considered regardless of its accuracy.

Hence (e) is the correct answer.

5. C The correct answer is (c). The purpose of standard costing is to control costs. (a) and (b) are not correct because a standard costing system is not required to determine profitability of a product or to appraise break-even analysis. (d) is not correct because standard costing does not allocate costs more accurately, especially when variances exist. (e) is not correct because standard costs are used by management as an aid in decision making. ≤

6. D ≤

The labor rate variance ratio = $\dfrac{\text{Actual hours} \times \text{Actual rate}}{\text{Actual hours} \times \text{Standard rate}} = \dfrac{(17{,}000 \times 0.45)}{(17{,}000 \times 0.50)} = 0.90.$

7. C The correct answer is (c). The sales price variance is determined by multiplying the difference between actual price and budgeted price by actual units. ≤

Actual price = $\dfrac{\text{Rs.}2{,}94{,}300}{21{,}800 \text{ units}}$ = Rs.13.50

Budgeted = $\dfrac{\text{Rs.}2{,}93{,}250}{23{,}000 \text{ units}}$ = Rs.12.75

$\therefore$ Sales price variance is 21,800 units (Rs.13.50 ~ Rs.12.75) = Rs.16,350 (Favorable).

8. E Sub-standard materials, Pilferage of materials, Non-standard material mixture, Wastage due to inefficient mixture are causes of material usage variance. However purchasing non-standard lots lead to reduction in quantity discount which is a cause for material price variance. ≤

9. B The number of standard hours equivalent to the work produced expressed as a percentage of the budgeted standard hours is known as activity ratio. ≤

10. C Material usage variance = Standard rate (Actual quantity ~ Standard quantity) ≤

Material A	=	Rs.21 (1,920 kg ~ 300 units × 6 kg)	
	=	Rs.21 × 120 kg =	Rs.2,520 (Adverse)
Material B	=	Rs.38 (1,160 kg ~ 300 units × 4 kg)	
	=	Rs.38 × 40 kg =	Rs.1,520 (Favorable)

Material usage variance	Rs.1,000 (Adverse)

11. D Target cost is the sale price (for the target market share) minus desired profit. Hence (d) is false. Target costs are based on external analysis of markets and competitors. Target costing is a cost management tool which reduces a product's costs over its entire life cycle. It is difficult to use target costing with complex products that require many sub-assemblies because tracking costs becomes too complicated and tedious, and cost analysis must be performed at so many levels. Target costing is used to control costs before the company incurs any production costs. ≤

12. B The answer is (b) because the advice of the staff of all the departments is not one of the factors to be considered while determining the period of the short-term budget. All the other options are the factors to be considered while determining the period for short-term budget. ≤

13. C While preparing a performance report for a cost center using flexible budgeting techniques, the planned cost column should be based on budget adjusted to the actual level of activity for the period being reported. ≤

14. D As market becomes saturated, pressure is exerted for a new product and sales along with profits of old product begin to fall. Intensified marketing effort may prolong the period of maturity, but only by increasing costs disproportionately. Hence option (d) is correct. All other options (a), (b), (c) and (e) are incorrect. ≤

15. C The return on investment can be increased by increasing sales, reducing expenses (both variable and fixed) and reduce operating assets. Hence by increasing the operating assets, the return on investments will decrease. ≤

16. A A favorable materials price variance is the result of paying less than the standard price for materials. An unfavorable materials usage variance is the result of using an excessive quantity of materials. If a purchasing manager is to buy substandard materials to achieve a favorable price variance, an unfavorable quantity variance could result from using an excessive amount of poor quality materials. ≤

17. C Many budgetees tend to budget revenues somewhat lower, and expenses somewhat higher, than their best estimates of these amounts. The difference between the budget amount and the best estimate is called Slack. In examining the budget, superiors attempt to discover and eliminate slack. Variance is the difference between the budget and actual. Standard error and Probability has no link with the difference between the budget amount and the best estimate. ≤

18. C No single method of transfer pricing is applicable across the board. In developing a system of transfer pricing for any particular situation, the factors needed to be considered are existence of competitive market (a), Sourcing constraint (b), Quantum of transfer (d), and Capacity level of selling division (e). Movability constraint (c) i.e. movement of the product from department to department is not a factor having relation with transfer pricing in any way. Hence (c) is not considered. ≤

19. B 15% return on investment = 15% of Rs.6,00,000 = Rs.90,000 ≤

Selling price per unit

= Variable cost per unit + fixed costs per unit + profit per unit

$$= \text{Rs.}34 + \frac{\text{Rs.}2,70,000}{22,500\text{ units}} + \frac{\text{Rs.}90,000}{22,500\text{ units}} = \text{Rs.}34 + \text{Rs.}12 + \text{Rs.}4 = \text{Rs.}50.$$

20. E Full cost pricing method is used if a company does not have the basic idea of demand for the product. It is not used to recover the only fixed costs or only variable cost. It is not used to recover market price plus mark-up or standard cost plus mark-up. ≤

21. D ≤

Mark-up percentage = $\dfrac{\text{Sales - Variable costs}}{\text{Variable costs}} \times 100$

Now sales = 600 units × Rs.40 + Rs.60,000 + Rs.21,000

= Rs.24,000 + Rs.60,000 + Rs.21,000 = Rs.1,05,000

Variable cost = Rs.40 × 600 units = Rs.24,000

∴ Mark-up percentage = $\dfrac{\text{Rs.1,05,000 - Rs.24,000}}{\text{Rs.24,000}} \times 100$ = 337.50%.

22. B Variable cost per unit = Rs.30 + Rs.20 + Rs.7 + Rs.30 = Rs.87 ≤

Fixed cost = Rs.28 × 1,600 units + Rs.30 × 1,600 units

= Rs.44,800 + Rs.48,000 = Rs.92,800

Fixed cost per unit at 1,450 units = $\dfrac{\text{Rs.92,800}}{\text{1,450 units}}$ =Rs.64.

23. A ≤

Standard variable cost per unit = $\dfrac{\text{Budgeted variable costs}}{\text{Budgeted units}} = \dfrac{\text{Rs.54,000}}{\text{6,000 units}}$ = Rs.9

Variable overhead cost variance

= Actual variable overhead costs – Standard variable overhead cost per unit × Actual output

= Rs.56,400 – Rs.9 × 6,400 units

= Rs.56,400 – Rs.57,600 = Rs.1,200 (favorable).

24. C A profit center is a segment of a company responsible for both revenues and expenses. A profit center has the authority to make decisions concerning markets (revenues) and sources of supply (costs). Option (a) is not correct because a revenue center is responsible for developing markets and selling the firm's products. Option (b) is not correct because a cost center combines labor, materials, and other factors of production into a final output. Option (d) is not correct because a service center provides specialized support to other units of the organization. Option (e) is incorrect because an investment center is responsible for revenues, expenses, and the amount of invested capital. ≤

25. B ≤

Particulars	Total (Rs.)	Per unit (Rs.)
Total cost	4,00,000	16.00
ROI (15% on Rs.10,00,000)	1,50,000	6.00
Desired selling price	5,50,000	22.00

26. E The total cost budget ≤

Particulars	Rs.
Prime cost (variable)	1,45,750
Repairs and maintenance (semi-variable) (Rs.5,500 + Rs.2,000)	7,500
Depreciation (fixed)	14,900
Administration and selling overheads (semi-variable) (Rs.13,750 + Rs.15,000)	28,750
Total cost	1,96,900
Cost per unit (Rs.1,96,900 ÷ 11,000 units)	17.90

27. A Machine activity cost per hour ≤

$= \dfrac{\text{Rs.3,60,000}}{\text{5,000 units} \times \text{8 hours} + \text{4,000 units} \times \text{5 hours}} = \dfrac{\text{Rs.3,60,000}}{\text{60,000 hours}} = \text{Rs.6.00 per machine hour}$

Set-ups cost per set-up = $\dfrac{\text{Rs.80,000}}{40} = \text{Rs.2,000}$ per set-up

Order handling cost per order = $\dfrac{\text{Rs.58,500}}{45} = \text{Rs.1,300}$ per order

Particulars	Product M (Rs.)	Product N (Rs.)
Machine activity cost	2,40,000	1,20,000

Machine activity cost	2,40,000	1,20,000
Set-ups cost	32,000	48,000
Order handling cost	26,000	32,500
Total production overhead	2,98,000	2,00,500

28. C A fixed budget is not prepared for a range; rather it is used unaltered during the budget period. It is prepared for a particular activity level and it does not change with actual activity level being higher or lower than the budgeted activity level. ≤

29. E Fixed overhead volume variance = Budgeted fixed overheads cost ~ Applied fixed overheads cost ≤

$$= \text{Rs.}48{,}000 \sim \frac{\text{Rs.}48{,}000}{1{,}200\,\text{units}} \times 1{,}224\,\text{units}$$

= Rs.48,000 ~ Rs.48,960 = Rs.960 (Favorable).

30. A Standard material cost = Actual material cost – Adverse material price variance + Favorable material usage variance ≤

Total Standard material cost = Rs.(72,000 – 2,600 + 8,600) = Rs.78,000

$$\text{Standard material cost per unit} = \frac{\text{Rs.}7{,}80{,}000}{10{,}000\text{ units}} = \text{Rs.}7.80.$$

31. C If the sale price is Rs.100, the profit is 20% i.e. Rs.20. Therefore, the cost is Rs.80. So, the profit mark-up on cost is Rs.20 ÷ Rs.80 i.e. 25%. ≤

32. C TQC is a management process based on the belief that quality costs are minimized with zero defects. The phrase ‘Quality is free’ is commonly advocated by the proponents of TQC. TQC begins but not ends with the design and engineering of the product. TQC is often associated with JIT (Just In Time) manufacturing. TQC is sometimes referred to as TQM (Total Quality Management). Hence statement (c) is incorrect and all other statements (a), (b), (d) and (e) are correct. ≤

33. B ≤

Particulars		Rs.
Cash sales: September	Rs.2,62,500 × 0 .25	65,625
Credit sales realized:		
August	Rs.2,40,000 × 0 .75 × 0.50	90,000
July	Rs.2,22,000 × 0.75 × 0.45	74,925
Cash receipts in September		2,30,550

34. C Zero-based budgeting is a technique by which manager of each decision unit is to justify his entire budget request in complete detail with a zero base. The manager of the decision unit has to isolate each item of his budget in order to analyze it in separate decision packages, which are ranked in order of importance. ≤

35. B The capital investment budget may be prepared more than a year in advance, unlike the other elements of the master budget. In case of preparation of master budget, it requires production budget, overhead expenses budget, proforma income statement and balance sheet. It does not require capital investment budget at the time of its preparation. ≤

36. A Due to some unforeseen circumstances, it may be necessary to alter a standard during an accounting period. Once a standard has been set, it is undesirable that it should be changed, because this affects budgets, standard costs, etc. Therefore, it is often preferable to create a revision variance, which segregates the difference due to this factor. ≤

37. D Management by exception is a system of identification and communication that signals the managers when his attention is needed (that is when there are variances significant or large from the planned events) by devoting management time to follow up on significant variances. ≤

38. C ≤

Standard time = $\frac{12{,}000 \text{ units}}{3{,}000 \text{ hours}}$ = 4 units per hour.

Standard hours for actual production = $\frac{11{,}680 \text{ units}}{4 \text{ units}}$ = 2,920 hours.

Actual hours = 2,760 hours.

Variable overhead efficiency variance

= Standard overhead rate (Actual hours – Standard hours for actual production)

= Rs.3.50 (2,760 hours ~ 2,920 hours)

= Rs.560 (Favorable).

39. D ≤

Particulars	(Rs.)	(Rs.)
Sales		1,35,000
Less:Direct materials	48,000	
Direct labor	22,500	
Variable overheads	12,000	82,500
		52,500
Less: Profit (Rs.1,20,000 × 15%)		18,000
Fixed overheads		34,500

40. B Since the division can sell the full capacity production to the outside market, it has no incentive to take a lower price i.e. it will not opt for negotiation or variable costing or cost plus a mark-up and full cost pricing methods i.e. it will be willing to use a transfer price set by the market. ≤

41. C ≤

Sales	Rs.3,90,000
Less: variable costs	Rs.2,16,000
	Rs.1,74,000
Less: fixed costs (traced)	Rs. 56,000
	Rs.1,18,000
Less: interest (18% of Rs.2,10,000)	Rs. 37,800
Residual income	Rs. 80,200

42. D Sales volume variance = Standard sale price (Standard sales quantity ~ Actual sales quantity) ≤

= Rs.65 (4,000 units ~ 4,200 units)

= Rs.65 × 200 units = Rs.13,000 (favorable).

43. D Cost of goods sold = Rs. 6,00,000 × 0.70 = Rs. 4,20,000 ≤

Cash disbursement = Rs. 4,20,000 + Rs.35,000 – Rs.19,000 = Rs.4,36,000.

44. B Total fixed cost = Rs.8,20,000 ≤

Revised fixed cost = Rs.8,20,000 + Rs.3,40,000 = Rs.11,60,000

Selling price per unit = Rs.16

Variable cost per unit = $\frac{9,37,500}{1,50,000}$ = Rs.6.25

Total contribution = 1,75,000 × (Rs.16 – Rs.6.25) = Rs.17,06,250;

Profit = Rs.17,06,250 – Rs.11,60,000 = Rs.5,46,250.

45. D Budget is a numeric representation of the manager's plans for a specified period of time. It can be used for communication, co-ordination, and measurement of success, motivations and control. For the budgetary process to serve effectively as a control function, it must be integrated with functional and operational systems and the organization structure. Budget provides the standards for evaluating the data generated by the accounting system. Relating the budgeting and accounting systems to the organizational structure will therefore enhance control by transmitting data and assigning variances to the proper organizational subunits. Hence, the management accountant of Vanitha Manufacturing Ltd., must integrate all aspects like budgeting and accounting system of the enterprise. So, the correct answer is (d). ≤

46. C Activity based costing deals with the overhead costs. Overhead cost is the cost other than direct cost. It does not segregate variable and fixed costs. It is based on historical costs. It highlights the causes of costs. It is very costly. Therefore (c) is false. ≤

47. B A revenue center is a responsibility center responsible for generating revenue. The managers of revenue centers are responsible and accountable for generating sales margin. Hence, the answer is (b). ≤

48. B An organized creative approach, which emphasizes efficient identification of unnecessary cost i.e. cost that provides neither quality, nor use, nor life, nor appearance, nor customer's satisfaction is known as value-analysis. ≤

49. D McGregor's Theory X is based on the conception that 'The average human being has an inherent dislike of work and will avoid it if he can'. Because of this human characteristic of dislike for work most people must be coerced, controlled and directed towards the achievement of goal. Option (b) is incorrect as this theory is based on the principles that the average human being does not inherently dislike work. Option (c) is incorrect as it is set forth hierarchy of human needs. Option (a) and (e) are not related to the question asked. Therefore, (d) is correct. ≤

50. C Overhead expenditure variance = Overhead cost variance ~ Overhead volume variance ≤

= Rs.2,025 (A) ~ Rs.865(A) = Rs.1,160(A)

Actual overheads incurred = budgeted overheads ~ overheads expenditure variance

= Rs. 18,000 + Rs.1,160(A) = Rs.19,160.

51. C Profit = Revenue – (Transfer price + Division cost). ≤

Let the required transfer price be X

Rs.190 – (X + Rs.32) = Rs.48

X = Rs.110.

52. B Contribution margin approach for pricing ignores fixed cost. In contribution approach pricing models, only variable costs are used as the basis of pricing. The pricing model is concerned only with the costs that vary with the product or service being priced. Therefore, fixed cost has no relevancy with these differential cost techniques. Other techniques mentioned in (a), (c), (d) and (e) consider the fixed cost in pricing the goods. ≤

53. E Revenue = Total cost + Target profit ≤

= Total cost + Imputed interest cost + Residual income

= Rs.4,00,000 + 10% on (Rs.2,00,000 + Rs.5,00,000) + Rs.1,75,000

= Rs.4,00,000 + Rs.70,000 + Rs.1,75,000

= Rs.6,45,000.

54. A ABC cost allocation systems can be used to allocate set-up costs, material handling costs, inspection costs and processing of production order costs to outputs. Direct labour costs do not need to be allocated to specific cost objectives, it is a direct cost. Other options mentioned in (b), (c), (d) and (e) are overhead costs and considered in Activity Based Costing system. ≤

55. D Human resource management is not a primary activity but it is a support activity in value chain analysis. All the other options are primary activities in value chain analysis. Hence, the answer is (d). ≤

56. A Revised standard proportion: ≤

Material X = 5/25 × 32,000 = 6,400 kg.

Material Y = 20/25 × 32,000 = 25,600 kg.

Material mix variance: standard rate (revised standard quantity – actual quantity)

Material X = (6,400 – 6,000) × Rs. 2.00 = Rs.800(F)

Material Y = (25,600 – 26,000) × Rs. 3.00 = Rs. 1,200(A)

Total material mix variance = Rs. 800(F) + Rs. 1,200(A) = Rs. 400(A).

57. B Return on Capital Employed = Operating profit ÷ Operating Assets ≤

Bright Ltd. = (35,00,000 – 30,00,000) ÷ 20,00,000 = 25%

Light Ltd. = (25,00,000 – 10,00,000) ÷ 50,00,000 = 30%.

58. A If the transferor division is operating at full capacity and the product is perfectly competitive, the appropriate transfer price is the sales value per unit = Rs.12,50,000 ÷ 31,250 = Rs. 40. ≤

59. B The budget process begins with the sales budget, proceeds to the production and expense budgets and eventually the cash budget. The cash budget cannot be prepared until the end of the process because all other budgets provide inputs to the cash budget. ≤

(a) is not correct because budget process begins with the sales budget.

(c) is not correct because direct labor budget provides inputs to the cash budget.

(d) and (e) are not correct because these budgets provide inputs to the cash budget, which is not prepared until the end of the other budgets.

60. A The standard hours for actual production allowed equaled 4,800 and the labor efficiency variance was Rs.2,800 (favorable), i.e., standard hours exceeded actual hours. The labor efficiency variance equals to Standard rate × (Standard hours for actual production ~ Actual hours) ≤

Therefore, Rs.2,800 (favorable) = Rs.14× (4,800 ~ actual hours)

200 hours (favorable) = 4,800 ~ actual hours

Actual hours = 4,600 hours.

61. D A cash budget may be prepared monthly or even weekly to facilitate cash planning and control. The purpose is to anticipate cash needs while minimizing the amount of idle cash. The cash receipts section of the budget includes all sources of cash. One such source is the proceeds of loans. ≤

62. E The reports for the lower level of management are fairly detailed through limited in scope and they are quantitative in nature. The reports for the top management are highly summarized with financial data. ≤

63. E

Efficiency ratio = $\frac{\text{Standard Hours for Actual Production}}{\text{Actual Hours Worked}} \times 100$ ≤

Standard hours for Actual Production = $\frac{6,400}{100} \times 124 = 7,936$ hours.

64. C

The variable cost per unit = $\frac{\text{Rs.16,000}}{\text{800 units}}$ = Rs.20. ≤

The total production per month if the special order is accepted = 800 units + 200 units = 1,000 units

The average fixed cost per unit with the special order = $\frac{\text{Rs.24,000}}{\text{1,000 units}}$ = Rs.24.

The average cost per unit = Rs.20 + Rs.24 = Rs.44.

65. A Identifying interrelationships between key activities and resources consumed is central in understanding how business activities drive costs. It is part of creating an ABC cost allocation method and usually requires direct input from employees engaged in the process. ≤

66. C If the activity level is increased from 75% to 80%, the total fixed costs remain fixed. Hence, the fixed cost per unit will reduce but not in the same proportion of 5%. Fixed cost per unit or in total does not increase with an increase in the activity level. Therefore (c) is correct. ≤

67. D The opportunity cost is the net benefit foregone by using a scarce resource for a given purpose. It is the benefit provided by the next best use of that resource. Thus, in a factory operating at full capacity, the opportunity cost of making a component is the benefit given up by not selecting an alternative use of the plant capacity. The other options are not correct. ≤

68. D The variable cost of product C is less than quoted price and variable cost of product D is more than quoted price, therefore, the company will make product C and buy product D. Hence the answer is (d). ≤

69. D The answer is (d), because the price of the other different products in the same company is not a consideration while setting the price of a product. The other options are not the answer because they are all the major considerations while setting the price of a product. ≤

70. D All are measures of productivity or efficiency, but the best measure of the segment's profitability as an investment is profit related to invested capital. ≤

71. D The relevant costs in a make or buy decision are those that differ between the two decision choices. These costs include any variable costs plus any avoidable fixed costs. Avoidable fixed costs will not be incurred if the 'buy' decision is selected. Hence, the answer is (d). ≤

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