FINAL EXAMINATION

GROUP III

(SYLLABUS 2012)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER 2017

Paper-15: BUSINESS STRATEGY AND STRATEGIC COST MANAGEMENT

Time Allowed: 3 Hours **Full Marks : 100**

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

SECTION- A (20 marks)

Answer Questions No. 1, which is *compulsory.*

1. (a) State whether the following statements are *True or False.* Give reasoning for your answers.
No credit will be given for answers without reasoning. If the statement is False, give the correct statement. **1×5= 5**

(i) Special Alert Control is designed to observe a wide range of events within and outside the organization that are likely to affect the track of the organization's strategy.

(ii) Management Development is a complex educational strategy designed to increase organizational effectiveness and wealth through planned involvement by a consultant, using the theory and techniques of applied behavioural science.

(iii) JIT deals with controlling defects in time.

(iv) Benchmarking cannot be used as a tool in the establishment of standard manufacturing cost.

(v) Transfer Pricing has significance for the purpose of measurement of divisional performance.

(b) Match the statement under column I with the appropriate statement under Column II:

Column I	Column II
(A) Crown Jewel Tactics	(i) is about creating and maintaining a competitive advantage in a constantly changing hyper-competitive environment.
(B) Strategic Position	(ii) defines the nature and range of businesses a firm intends to operate.
(C) Strategic Leadership	(iii) is a unique skill or technology that creates distinct customer value.
(D) Corporate Strategy	(iv) The target company arranges to sell its highly profitable part of the business in order to dissuade the predator.
(E) Core Competency	(v) involves making choices between competing alternatives that are, to some extent, mutually exclusive.

(c) Define the following terms in just one-two sentence (s): 1×5=5

(i) Kaizen Costing
(ii) Responsibility Accounting
(iii) Activity Based Costing
(iv) Strategic Cost Management
(v) Gross Profit Ratio

(d) By making and selling 7,000 units of its product, a company would loss ₹10,000; whereas in the case of 9,000 units, it would make a profit of ₹10,000 instead. Calculate: 1×5=5

(i) Contribution per unit,
(ii) The amount of fixed expenses,
(iii) The number of units to break-even,
(iv) Profit or loss for 10,000 units, and
(v) Units required to earn a profit of ₹ 10,000.

Answer: 1(a)

(i) **False.** Strategic Surveillance is designed to observe a wide range of events within and outside the organization that are likely to affect the track of the organization's strategy.

(ii) **False.** Organizational Development is a complex educational strategy designed to increase organizational effectiveness and wealth through planned involvement by a consultant, using the theory and techniques of applied behavioural science.

(iii) **False.** JIT is a management tool that helps to produce the needed quantities, at the needed time and advocates to reduce wastage and enhance productivity of the factors of production by taking part in manufacturing process.

(iv) **False.** Benchmarking is an approach of setting goals and measuring productivity based on best industry practices.

(v) **True.** Transfer Pricing has significance for the purpose of measurement of divisional performance

Answer: 1(b)

Column I	Column II
(A) Crown Jewel Tactics	(iv) The target company arranges to sell its highly profitable part of the business in order to dissuade the predator.
(B) Strategic Position	(i) is about creating and maintaining a competitive advantage in a constantly changing hyper-competitive environment.
(C) Strategic Leadership	(v) involves making choices between competing alternatives that are, to some extent, mutually exclusive.
(D) Corporate Strategy	(ii) defines the nature and range of businesses a firm intends to operate.
(E) Core Competency	(iii) is a unique skill or technology that creates distinct customer value.

Answer: 1(c)

(i) Kaizen Costing: is based on the belief that nothing is ever perfect, so improvements and reductions in the variable costs are always possible.

(ii) Responsibility Accounting is the collection, summarization and reporting of financial information about various decision centres throughout an organization.

(iii) Activity Based Costing (ABC) is a costing methodology that identifies activities in an organization and assigns the cost of each activity with resources to all products and services according to the actual consumption by each.

(iv) Strategic cost management is not simply about keeping costs as low as possible. It is about spending money wisely.

(v) Gross Profit Ratio is important for management because it highlights the efficiency of operation and also indicates the average spread between the operating cost and revenue. Gross Profit Ratio = Gross Profit/Net Revenue × 100.

Answer: 1(d)

i. We know that the Marginal Cost Equation = Sales - MC = Contribution = Fixed Cost + Profit.

If there is a loss, the Marginal Cost Equation= Sales-MC = Contribution = Fixed Cost-Loss.

C_{9000} = F + 10,000

C_{7000}= F - 10,000

C_{2000} = F +10,000 - F + 10,000 =20,000

∴ C_{2000} = 20,000 or **Contribution/ unit** = 20,000 ÷ 2000 **= ₹ 10.**

ii. C $_{7000}$ = F - 10,000

or 7000 × 10 = F - 10,000 or F = 70,000 +10,000 = ₹80,000

or **Fixed Cost** = **₹80,000/-**

iii. **BEP** = Fixed Cost ÷ Contribution/unit = 80,000/10 = **8,000 units.**

iv. Profit + F = Contribution.

Or P = $C_{10,000}$ – F

or P= ₹ 1,00,000 - 80,000 = **₹20,000**

v. **Required Volume =** (F + P)/Cper unit = 80,000 +10,000 /10 = 90,000 /10 = **9,000 units.**

SECTION – B (80 marks)

Answer *any five* questions from the following.

Each question carries *Sixteen* marks. 16×5=80

2. (a) What is meant by 'Business Strategy'? How is it different from Corporate Strategy? 8

(b) Explain how external factors influence the activities of an organization. Mention at least five such factors which an organization should consider to minimize their adverse effects on its business. 3+5=8

Answer: 2 (a)

<u>Business strategy:</u>

A business strategy is an organization's intent that reflects the plans of the entire business. Business strategy gives an idea about what the organization wants to achieve and the process how they want to achieve it. It basically includes the purpose of the entire organization, its goals and objectives as well as the plans and methods that they are considering so that they can achieve this. Business strategy is a plan that is often used so that they can attract financing from big investors as well as creditors. It is a plan designed to give information regarding a new venture so that they can convince financial backers to invest in the said business. Business strategy describes the market opportunities that the business intends to develop, the process on how they are going to do it and the resources that are required to make it possible. Business strategy has to be anticipatory and dynamic.

The definition of business strategy is a long-term plan of action designed to achieve a particular goal or set of goals or objectives. Business strategy is management's game plan for strengthening the performance of the enterprise. It states how business should be conducted to achieve the desired goals. Without a strategy, management has no roadmap to guide them. Creating a business strategy is a core management function.

A good business strategy is the base ingredient for a successful business. However, there are many different kinds of business strategies. The best business strategy should be able to guide the company into a direction, wherein the expected internal pressure due to business continuity meets the great demand of the fast changing world for the revolutionary business plan.

<u>Corporate Strategy:</u>

Corporate level strategy is concerned with the strategic decisions a business makes that affect the entire organization. Financial performance, mergers and acquisitions, human resource management and the allocation of resources are considered part of corporate level strategy.

The corporate strategy defines the market and the business wherein a certain company will operate. Corporate strategy is usually decided through the context of being able to define the company's mission and vision. This is the same, as being able to recognize what the company does, why it exists in the first place and what it intends to become in the future.

Many companies have one overarching goal: to earn a profit and create a return for shareholders. To achieve their goals, corporations may own multiple business units in various industries. Business-level strategy is used to obtain a customer base and sell a product at a profit. Corporate-level strategy, on the other hand, is used when deciding what business units to sell and purchase and how to integrate operations and find synergies between them.

Answer: 2 (b)

External factors are those factors that are beyond the control of an enterprise. Tight lending conditions, government regulations and competitions are some of the external factors that affect virtually every small business. Strategic planners anticipate and manage some of the circumstances that affect their business. Exploring alternative financing sources until lending restrictions ease, developing plans for compliance with regulations and enhancing motivation and service to stay ahead of the competition are forward-thinking ways to keep external factors from threatening the survival of the business.

5 External factors that an organization should consider to minimize their adverse effects on its business could be:

- Social factors
- Legal factors
- Economic factors
- Political factors
- Technological factors.

Social factors:

These factors are related to changes in social structures. These factors provide insights into behaviour, tastes and lifestyles patterns of a population. Buying patterns are greatly influenced by the changes in the structure of the population and in consumer lifestyles. Age, gender etc., all determine the buying patterns and understanding of such changes is critical for developing strategies which are in line with the market situations. In a global environment, it is important that the business strategies are designed keeping in mind the social and cultural aspects for successful business management.

Legal factors:

These factors that influence business strategies are related to changes in government laws and regulations. For a successful business operation, it is important that the businesses consider the legal issues involved in a particular situation and should have the capacity to anticipate ways in which changes in laws will affect the way they must behave. Laws keep changing over a period of time. From the point of view of business, it is important that they are aware of these changes in the areas of consumer protection legislation, environmental legislation, health and safety and employment law, etc,

Economic factors:

These factors involve changes in the global economy. A rise in living standards would ultimately imply an increase in demand for products there by, providing greater opportunities for businesses to make profits. An economy witnesses fluctuations in economic activities. This would imply that in case of a rise in economic activity the demand of the product will increase and hence the price will increase. In case of reduction in demand, the prices will go down. Business strategies should be developed, keeping in mind these fluctuations.

Political factors:

This refers to the changes in environment and government policies. Political factors greatly influence the operations of business. This has gained significant importance of late. For example: Companies operating in the European Union have to adopt directives and regulations created by the EU. The political arena has a huge influence upon the regulation of businesses and the spending power of consumers and other businesses. Business must consider the stability of the political environment, government's policy on the economy, etc.,

Technological factors:

These factors greatly influence business strategies as they provide opportunities for businesses to adopt new innovations and inventions. This helps the business to reduce costs and develop new products. With the advent of modern communication technologies, technological factors have gained great impetus in the business arena. Huge volumes of information can be securely shared by means of databases there by enabling vast cost reduction and improvements in service. Organizations need to consider the latest relevant technological advancements for their business and to stay competitive.

3. (a) Explain the concept of 'Value Chain Analysis' (VCA) bringing out its linkage with an organization's competitive position. List the four step processes involved in VCA that can be performed by an organization. 6+2=8

(b) Excel Electronics manufacturing electronic equipments is currently procuring component A from a local supplier at a cost of ₹60 each. The company is presently considering the proposal for installing a machine for the manufacture of the component. It has two alternative proposals as under:

(A) Installation of semi-automatic machine involving an annual fixed expenditure of ₹36 lakhs and a variable cost of ₹24 per component manufactured.

(B) Installing an automatic machine involving an annual fixed expenditure of ₹ 60 lakhs and a variable cost of ₹ 20 per component manufactured.

You are required to:

(i) Find the annual requirement of components to justify a switch-over from procurement of components to manufacture of the same by installing (I) semi-automatic machine and (II) automatic machine.

(ii) Advise the company on the machine to be installed if the annual requirement of the components is 5,00,000 units.

(iii) Advise the company at what annual volume it should select automatic machine instead of semi-automatic machine. 3+3+2=8

Answer: 3 (a)

The value chain approach was developed by Michael Porter in the 1980s in his book — "Competitive Advantage: Creating and Sustaining Superior Performance".

Value chain, is a strategic tool designed in order to gain competitive advantage by the creating and sustaining superior performance. It can be achieved through five primary areas: inbound logistics, operations, out-bound logistics, marketing and sales. Further these influence upon support activities such as procurement, technology development, human resource management, and infrastructure.

The value-chain concept has been extended beyond individual firms. It can apply to whole supply chain and distribution networks. The delivery of a mix products and services to the end customer will mobilize different economic factors, each managing its own value chain. The industry wide synchronized interactions of those local value chains create an extended value chain, sometimes global in extent.

Porter terms this larger interconnected system of value chain as the "value system." A value system includes the value chains of a firm's supplier (and their suppliers all the way back), the firm itself, the firm distribution channels, and the firm's buyers (and presumably extended to the buyers of their products, and so on).

Value chain analysis is defined as —a means of segregating various activities of a business and identify them with respect to their contribution towards value generation by identifying the cost i.e. inputs consumed by that activity and output generated by that activity.

The various business functions include research and development, design of products, services or process, production, marketing, distribution, customer service and strategy and administration. Value chain analysis not only describes these as an essential and valued contributor but also integrates and coordinates the efforts of all these business functions in addition to developing the capabilities of each individual business function. By this way value chain analysis helps the management towards proper planning, operation, performance evaluation and decision making.
The basic objectives of employing value change management in a business is to integrate communication and increase cooperation between production chain members in order to decrease the delivery times, reduce inventories and increase customer satisfaction.

The value chain analysis describes the activities the organization performs and links them to organization's competitive position. This analysis describes the activities within and around an organization and relates them to an analysis of the competitive strength of the organization. Therefore, it evaluates which value each particular activity adds to the organization's products or services. This idea was build upon the insight that an organization is more than a random compilation of machinery, equipment, people and money. Only if these things are arranged into systems and systematic activities, it will become possible to produce something for which customers are willing to pay a price.

Four step processes involved in Value Chain Analysis that can be performed by an organization:

A typical Value Chain Analysis can be performed with the following four step processes:

- Analysis of own value chain-which costs are related to every single activity
- Analysis of customer's value chains-how does our product fit into their value chain
- Identification of potential cost advantages in comparison with competitors
- Identification of potential value added for the customer-how can our product add value to the customer value chain (eg., lower costs or higher performance)

Answer: 3 (b)(i)

	Semi-Automatic Machine (₹)	Automatic Machine (₹)
Purchase price of the component		
Variable Cost	60	60
Saving	24	20
	36	40
Fixed Cost	36,00,000	60,00,000
Components required to be produced to justify the installation of the machine	36,00,000/36 = 1,00,000	60,00,000/40 = 1,50,000

(ii) If the annual requirement is 5,00,000 units:

Variable Cost	1,20,00,000	1,00,00,000
Fixed Cost	36,00,000	60,00,000
Total Cost	1,56,00,000	1,60,00,000

Recommendation: Install semi-automatic machine.

(iii)

Fixed costs for Automatic machine (-) Fixed costs for Semi-automatic machine	₹60,00,000 ₹36,00,000
Difference	₹24,00,000

Volume required to justify Automatic machine = 24,00,000/4 = 6,00,000 components.

4. (a) ICICI Bank and Vodafone India announced a strategic alliance to launch a unique mobile money transfer and payment service called 'm-pesa'. Write five typical strategic alliance formation process steps involved. 3+5=8

(b) Write eight steps of Business process re-engineering suggested by Vakola et al. (1998). 8

Answer: 4 (a)

ICICI and Vodafone (India) have announced a Strategic Alliance to launch a unique mobile money transfer and payment service called 'm-pesa'. A Strategic Alliance is an arrangement between two companies that have decided to share resources to undertake a specific, mutually beneficial project. It is less involved and less permanent than a joint venture, in which two companies typically pool resources to create a separate business entity.

In a strategic alliance, each company maintains its autonomy while gaining a new opportunity. A strategic alliance could help a company develop a more effective process, expand into a new market or develop an advantage over a competitor, among other possibilities. IC ICI and Vodafone (India) have entered into a Strategic Alliance.

<u>A typical strategic alliance formation process involves these five steps</u>:

- **<u>Strategy Development:</u>**
  Strategy development involves studying the alliance's feasibility, objectives and rationale, focusing on the major issues and challenges and development of resource strategies for production, technology, and people. It requires aligning alliance objectives with the overall corporate strategy.
- **<u>Partner Assessment:</u>**
  Partner assessment involves analyzing a potential partner's strengths and weaknesses, creating strategies for accommodating all partners' management styles, preparing appropriate partner selection criteria, understanding a partner's motives for joining the alliance and addressing resource capability gaps that may exist for a partner
- **<u>Contract Negotiation:</u>** Contract negotiations involves determining whether all parties have realistic objectives, forming high caliber negotiating teams, defining each partner's contributions and rewards as well as protect any proprietary information, addressing termination clauses, penalties for poor performance, and highlighting the degree to which arbitration procedures are clearly stated and understood.
- **<u>Alliance Operation:</u>**
  Alliance operations involves addressing senior management's commitment, finding the calibre of resources devoted to the alliance, linking of budgets and resources with strategic priorities, measuring and rewarding alliance performance, and assessing the performance and results of the alliance.

- **Alliance Termination:**
  Alliance termination involves winding down the alliance, for instance when its objectives have been met or cannot be met, or when a partner adjusts priorities or re-allocates resources elsewhere.

Answer: 4 (b)

Business process re-engineering (BPR)

Business process re-engineering (BPR) is a business management strategy, originally pioneered in the early 1990s, focusing on the analysis and design of workflows and processes within an organization. BPR seeks to help companies radically restructure their organizations by focusing on the ground-up design of their business processes. Business process re-engineering is also known as business process redesign, business transformation, or business process change management. The globalization of the economy and the liberalization of the trade markets have formulated new conditions in the market place which are characterized by instability and intensive competition in the business environment. Competition is continuously increasing with respect to price, quality and selection, service and promptness of delivery. Removal of barriers, international cooperation, technological innovations cause competition to intensify. All these changes impose the need for organizational transformation, where the entire processes, organization climate and organization structure are changed.

The eight proposed stages, as SUGGESTED BY Vakola et al. (1998) are as follows:

- Develop Vision and Objectives
- Understand existing processes
- Identify Process for Re-design
- Identify Change Levers
- Implement the new process
- Make new process operational
- Evaluate the new process
- Monitor ongoing continuous improvement.

5. (a) What are the determinants of Activity – Based Costing? Explain them. 8

(b) You are given, in respect of a manufacturing company, the following activity centres and their costs for a period:

	₹
1. Material handling	**8,000**
2. Machining	**5,000**
3. Assembly	**4,800**
4. inspection	**1,400**

The other particulars are:

	₹
Number of materials parts	**8,000**
Machine hours	**150**
Numbers of assembly parts	**8,000**
Number of finished units	**1,000**

(i) Calculate overhead allocation rates using ABC.

(ii) What will be the cost of a product which uses the following?
8 units of materials
One-fourth of the machine hour
8 assembly parts (₹100)
Power etc. (₹10)
Given direct material cost for one unit ₹200. **4+4=8**

Answer: 5 (a)

Activity-Based Costing (ABC) has grown in importance in recent decades because the manufacturing overhead costs have increased significantly. Further the manufacturing overhead costs no longer correlate with the productive machine hours or direct labour hours. Further the diversity of products and the diversity in the customers' demands have grown. Further some products are produced in large batches.

The determinants of Activity -Based Costing are:

i. High incidence of overhead Cost
ii. Volume Diversity
iii. Product Complexity or Diversity.

i. High incidence of Overhead Cost: Activity-Based Costing (ABC) assigns manufactured overhead costs to products in a more logical manner than the traditional approach of simply allocating costs on the basis of machine hours. Activity -Based Costing(ABC) first assigns costs to the activities that are the real cause of the overhead. It then assigns the cost of those activities only to the products that are actually demanding the activities.

ii. Volume Diversity: Activity-Based Costing (ABC) recognizes that the special engineering, special testing, machine set-ups and such other activities are those activities that cause costs-they cause the company to consume resources. Under ABC, the company will calculate the cost of volume of the resources used in each of these activities. Next, the cost of each of these activities will be assigned only to the products that demanded the activities.

iii. Product Complexity or Diversity: ABC costs the products based on the activities that goes into it. This facilitates arriving at the accurate cost of the products and enhances effective strategic decisions to position the products better and facilitate better product-mix for the market. Further the diversity of the product enables ABC to deal with the problem appropriately.

Answer: 5 (b)

i. Allocation rates:		Per unit of application base ₹
Material handling (₹ 8,000 ÷ 80,000) Machining (₹5,000 ÷150) Assembly (₹4,800 ÷ 8,000) Inspection (₹ 1,400 ÷ 1,000)		0.10 33.33 0.60 1.40
ii. Cost Statement:		Per unit ₹
Direct Material Power.etc, Variable Costs		200 10 210

Other Costs: Material handling (8 parts × 0.10) Machining (1/4 × ₹33.33) Assembly (8 parts × 0.60) Inspection (1 unit × 1.40)	 0.80 8.33 4.80 1.40	 15.33
Total		₹225.33

6. (a) A firm received an order to make and supply eight units of standard product which involves intricate labour operations. The first unit was made in 10 hours. It is understood that this type of operations is subject to 80% learning rate. The workers are getting a wages rate of ₹12 per hour.

(i) What is the total time and labour cost required to execute the above order?

(ii) If a repeat order of 24 units is also received from the same customer, what is the labour cost necessary for the second order? **4+4= 8**

(b) A chemical company produces two compounds A and B. The following table gives the units of ingradients C and D per kg of compounds A and B as well as the minimum requirements of C and D and costs per kg of A and B. Formulate the Linear Programming Problem (LPP):

		Table Compound		Minimum Requirement
		A	**B**	
Ingradient	**C**	**1**	**2**	**80**
	D	**3**	**1**	**75**
Cost per kg (₹)		**4**	**6**	

Do not solve the LPP.

Answer: 6 (a)

80% Learning Curve results are as given below:

Production(units)	Cumulative Average Time (Hours)	Total Time (Hours)
1	10	10
2	8	16
4	6.4	25.6
8	5.12	40.96
16	4.096	65.54
32	3.2768	104.86

(i)

Labour time required for first eight units = 40.96 hours

Labour cost required for 8 units = 40.96 hours × ₹ 12/hr = ₹491.52

(ii)

Labour time for 32 units = 104.86 hours

Labour time for first eight units = 40.96 hours

Labour time required for 2nd order for 24 units = 63.90 hours

Labour cost for 24 units = 63.90 hours × ₹ 12/hr = ₹ 766.80.

Answer: 6 (b)

Let x_1 be the no. of units of A

Let x_2 be the no. of units of B

<u>Objective function</u>

Minimum $Z = 4x_1 + 6x_2$ (i)

Subject to constraints:

$x_1 + 2x_2 \geq 80$ (ii)

$3x_1 + x_2 \geq 75$ (iii)

$x_1, x_2 \geq 0$ (Non-negative constraints). (iv)

7. (a) The budget and actual data of an Airline Company for the first quarter of 2017-18 are as under:

₹ In Million

	Budget	Actual
Income	**400.0**	**418.0**
Variable costs	**240.0**	**290.4**
Contribution	**160.0**	**127.6**
Fixed costs	**140.0**	**136.0**
Operating Profit /(Loss)	**20.0**	**(8.4)**

The following further details are available:

(i) There was a decrease in air-fare by 10% over budget resulting in a 5% decrease in income for the quarter.

(ii) Variable costs like fuel, wages, catering etc. are increased by 10% over budget.

Prepare an analysis reconciling the budgeted and actual profits for the Quarter. 8

(b) A manufacturing company has the following production budget for November, 2016: Product A = 20,000 units and Product B = 40,000 units.

A standard hour represents 10 units of A and 8 units of B. Standard wage rate per hour is ₹ 0.50.

During the month, 7,500 hours were paid (@ ₹ 0.60 per hour) which included 350 unproductive hours due to unbudgeted holidays as also loss of production of 250 units of Product A due to machine breakdown.

Actual production for the month were 24,000 units of A and 38,000 units of B.

Calculate: 2×4=8

(i) Direct labour rate variance

(ii) Direct labour idle time variance

(iii) Direct labour efficiency variance

(iv) Direct labour total variance

Answer: 7 (a)

		₹ In Millions
Operating Profit as per the Budget Add: Increase in Contribution due to increased volume		20.00 16.00
		36.00
Less: Reduction in Income due to reduced airfare Increase in Variable Cost	22.00 26.40	 48.40
Loss Less: Reduction in Fixed Cost		12.40 4.00
Actual Loss for the Quarter		8.40

Working Notes:

		₹ In Millions
i. Increase in Volume: Income as given in the problem Add: Decrease due to reduction in airfare rate by 5% (418/95 × 100 – 418)		 418.00 22.00
Total Adjusted Income		440.00
ii. Percentage increase over budget at 10% Variable Costs: Actual Less: Increase due to rates (10/110) × 290.40		 290.40 26.40
		264.00
Budgeted variable Expenditure Add: Increase in Volume by 10%	240.00 24.00	 264.00
iii. Increase in Contribution As per Budget Add: 10% for increase in volume		 160.00 16.00
		176.00

Answer: 7 (b)

Product	Production (units)	Per standard hours (units)	Standard hours
A	24,000	10	2,400
B	38,000	8	4,750
		Total	7,150

i. Direct Labour Rate Variance : (SR - AR) × AT = ₹ (0.50 - 0.60) × 7,500 = 750 (A)

ii. Direct Labour Idle time Variance :
Abnormal idle time × SR = 375 × 0.50 = ₹ 187.50(A)

iii. Direct Labour efficiency variance :
(ST-AT excluding abnormal Idle Time × SR = (7150 - 7125) × ₹0.50 = 12.50 (F)

iv. Direct Labour total variance:
Standard cost-7150 hours @ ₹0.50 = ₹3,575
Actual cost- 7500 hours @ ₹0.60 = ₹4,500
Direct Labour total variance: ₹ 925(A)

Note: Abnormal Idle time – Unbudgeted holidays = 350 hours
Machine breakdown – (1/10) × 250 = 25 hours
375 hours

8. (a) **State the circumstances when Premium Pricing is resorted as a marketing strategy. What are its limitations? 4+2=6**

(b) **What do you understand by (new) product development? Enumerate the important stages of product development process in a multi-national firm and briefly explain them. 2+8=10**

Answer: 8(a)

A Premium pricing strategy involves setting the price of a product higher than similar products. This strategy is sometimes also called "Skim Pricing" because it is an attempt to "skim the cream" off the top of the market. It is used to maximize profit in areas where :

a. Customers are happy to pay more
b. there are no substitutes for the product
c. there are barriers to entering the market
d. the seller cannot save on costs by producing at a high volume
e. the brand of the product is identifiable and distinguishable
f. the demand for the product outweighs the firm's ability to supply
g. the product seems to command a high esteem value
h. the initial high price also serves to skim the cream of the market.

Unique products usually have the best chance of commanding premium prices. This is one reason why pharmaceuticals -where the product is protected by patend-tend to be very expensive. This is especially true of technology products.

Premium pricing can also be used to improve brand identity in a particular market. This is called price-quality signaling because the high price signals to consumers that the product is high in quality. Some companies use this strategy to give their product an aspiration image.

Limitations of Premium Pricing:

Premium pricing is not generally used when there is direct competition for a product. Competition tends to undercut prices and lead to poor sales. For this reason, premium pricing is often a short-term strategy. The longer a company can keep its competitive advantage, the longer it can charge a premium price. Many products start out at premium prices but the price is cut once competitors appear on the market.

Answer: 8(b)

In business and engineering, **new product development (NPD)** is the complete process of bringing a new product to market. A product is a set of benefits offered for exchange of price and can be tangible (that is, something physical you can touch) or intangible (like a service, experience, or belief). There are two parallel paths involved in the NPD process: one involves the idea generation, product design and detail engineering; the other involves market research and marketing analysis. Companies typically see new product development as the first stage in generating and commercializing new product within the overall strategic process of product life cycle management used to maintain or grow their market share.

The eight stages of product development process are as follows:

1. **Idea Generation** is often called the "NPD" of the NPD process.
    - Ideas for new products can be obtained from basic research using a SWOT analysis

(Strengths, Weaknesses, Opportunities & Threats). Market and consumer trends, company's R&D department, competitors, focus groups, employees, salespeople, corporate spies, trade shows, or ethnographic discovery methods (searching for user patterns and habits) may also be used to get an insight into new product lines or product features.

- Lots of ideas are generated about the new product. The ideas are generated in many forms. Many reasons are responsible for generation of an idea.
- Idea Generation or Brainstorming of new product, service, or store concepts - idea generation techniques can begin when you have done your OPPORTUNITY ANALYSIS to support your ideas in the Idea Screening Phase.

2. Idea Screening

- The object is to eliminate unsound concepts prior to devoting resources to them.
- The screeners should ask several questions:
- Will the customer in the target market benefit from the product?
- What is the size and growth forecasts of the market segment / target market?
- What is the current or expected competitive pressure for the product idea?
- What are the industry sales and market trends the product idea is based on?
- Is it technically feasible to manufacture the product?
- Will the product be profitable when manufactured and delivered to the customer at the target price?

3. Concept Development and Testing

- Develop the marketing and engineering details
- Investigate intellectual property issues and search patent databases
- Who is the target market and who is the decision maker in the purchasing process?
- What product features must the product incorporate?
- What benefits will the product provide?
- How will consumers react to the product?
- How will the product be produced most cost effectively?
- Prove feasibility through virtual computer aided rendering and rapid prototyping
- What will it cost to produce it?
- Testing the Concept by asking a number of prospective customers what they think of the idea - usually Choice Modeling.

4. Business Analysis

- Estimate likely selling price based upon competition and customer feedback
- Estimate sales volume based upon size of market
- Estimate profitability and break-even point

5. Beta Testing and Market Testing

- Produce a physical prototype or mock-up
- Test the product (and its packaging) in typical usage situations
- Conduct focus group customer interviews or introduce at trade show
- Make adjustments where necessary
- Produce an initial run of the product and sell it in a test market area to determine

customer Acceptance

6. **Technical Implementation**
   - New program initiation
   - Finalize Quality Management System
   - Resource estimation
   - Requirement publication
   - Publish technical communications such as data sheets
   - Engineering operations planning
   - Department scheduling
   - Supplier collaboration
   - Logistics plan
   - Resource plan publication
   - Program review and monitoring
   - Contingencies - what-if planning

7. **Commercialization**
   - Launch the product
   - Produce and place advertisements and other promotions
   - Fill the distribution pipeline with product
   - Critical path analysis is most useful at this stage

8. **New Product Pricing**
   - Impact of new product on the entire product portfolio
   - Value Analysis (internal & external)
   - Competition and alternative competitive technologies
   - Differing value segments (price, value and need)
   - Product Costs (fixed & variable)
   - Forecast of unit volumes, revenue, and profit