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Question Paper	
SCMPE	**Duration**: 180
Details: Full Test 1	**Marks**: 100

Instructions:

- All the questions are compulsory
- Properly mention test number and page number on your answer sheet, Try to upload sheets in arranged manner.
- In case of multiple choice questions, mention option number only Working notes are compulsory wherever required in support of your solution
- Do not copy any solution from any material. Attempt as much as you know to fairly judge your performance.

(Question No. 1 is compulsory. Attempt any four questions from the Rest 5)

Q-1: Excel Ltd. is the leading manufacturer and exporter of high quality leather products - Product A andProduct B.

Selling price per unit of Product A and Product B is Rs.620 and Rs.420 respectively.

Both the products pass through three processes - Tanning, Dyeing and Finishing during manufacturing process. Allocation of costs per unit of leather products manufactured among theprocesses are given below:

Particulars	**Tanning**	**Dyeing**	**Finishing**	**Total**
Direct Materials per unit	140	180	140	460
Direct Labour per unit	90	120	90	300
Cost allocation to Product A	70%	50%	70%	
Cost allocation to Product B	30%	50%	30%	

General overheads per unit of leather products manufactured are Rs.230 which is allocated equallybetween Product A and Product B. Above cost allocation is the basis for the decisions regardingpricing of the products.

In this Industry, all the major production processes have environmental impact at all stages of theprocess, including generation of waste, emission of harmful gases, noise pollution, watercontamination etc.

The management of the company is worried about the above environmental impact and has takeninitiative to preserve the environment like - research and development activities aimed at reducingpollution level, planting trees, treatment of harmful gases and airborne emissions, wastewatertreatment etc.

The management of the company desires to adopt Environmental Management Accounting as a partof strategic decision making process. Pricing of products should also factor in environmental costgenerated by each product.

General overheads per unit of leather products manufactured are Rs.230 which includes:

Treatment cost of harmful gases…	Rs.80
Wastewater treatment cost……….	Rs.100
Cost of planting of trees……………	Rs.20

Process wise information related to generation of wastewater and harmful gases is given as below:

	Tanning	Dyeing	Finishing	Total
Wastewater generated (litres per week)	900	600	0	1,500
Emission of harmful gases (cc per week)	400	300	100	800
Cost allocation to Product A	70%	50%	70%	
Cost allocation to Product B	30%	50%	30%	

The remaining overheads cost and cost of planting trees can be allocated equally between ProductA and Product B.

Required

(a) CALCULATE the product wise profitability based on the original cost allocation.
(b) RECALCULATE the product wise profitability based on activity based costing(Environment driven costs).

(c) ANALYZE the difference in product profitability as per both the methods.

(d) RECOMMEND and EXPLAIN the four management accounting techniques for theidentification and allocation of environmental costs.

(e) STATE why the management of environmental costs is becoming increasingly importantin organizations. Give reasons.

(20 Marks)

Q-2 (a) RK Ltd, which is producing a product, prepared a budget for the next year as follows:

Fixed Cost p.a	Rs.12,60,000
Variable Cost p.u	25
Production	1,80,000 units

Selling price- Cost plus 25% mark up on total budgeted cost

When these budgeted figures and the pricing approach were informed to the Marketing Manager, he came out with a remark that the demand for the product is more price sensitive and he expected the demand under various prices as given below:

Selling Price p.u. (Rs.)	36	38	40	42	44
Annual Demand (units)	1,74,000	1,62,000	1,50,000	1,38,000	1,25,000

The Marketing Manager further informed that a wholesale dealer is ready to buy the entire production of the company at a price of Rs. 32 p.u. In that situation he expected a savings of Rs.2p.u. in the selling expenses which are a part in the above stated variable cost.

Required

EVALUATE the situation and advice the most profitable course of action

(8 Marks)

Q-2 (b) H Automobile Group is among top 20 business houses in India. It has been founded in the year 1930, at the height of India's movement for independence from the British, the group has an illustrious history. H's footprint stretches over a wide range of industries, spanning automobiles (two wheelers manufacturer and three wheelers manufacturer). H's headquarter is located atHyderabad. Bike Production is one of segment of H Group. Management of H wants to analyse thefollowing actual information for the April:

Cost Data

Customer Complaints Centre Cost	35 per hr.
Equipment Testing Cost	18 per hr.
Warranty Repair Cost	1,560 per bike
Manufacturing Rework Cost	228 per bike

Volume and Activity Data

Bikes Requiring Manufacturing Rework	3,200 bikes
Bikes Requiring Warranty Repair	2,600 bikes
Production Line Equipment Testing Time	1,600 hrs.
Customer Complaints Centre Time	2,000 hrs.

Additional Information

Due to the quality issues in the month, the bike production line experienced unproductive 'down time' which cost Rs.7,70,000. H carried out a quality review of its existing suppliers to enhance quality levels during the month at a cost of Rs.1,25,000.

Required

i PREPARE a statement showing 'Total Quality Costs'.

ii. ADVISE any TWO measures to reduce the non- conformance cost.

(5 Marks)

Q-2 (c) A company makes a single product which sells at Rs.800 per unit and whose variable cost of production is Rs.500 per unit. Production is 1000 units per months. Production is running to full capacity and there is market enough to absorb an additional 20% of output each month.

The company has two options

Option-I

Inspect finished goods at Rs.10,000 per month. 4% of production is detected as defectives and scrapped at no value. There will be no warranty replacement, since every defect is detected. A small spare part which wears out due to defective material is required to be replaced atRs. 2,000 per share for every 20 units of scrap generated. This repair cost is not included in the manufacturing cost mentioned above.

Option-II

Shift the finished goods inspection at no extra cost, to raw material inspection, (since detective raw materials are entitled to free replacement by the supplier), take up machine set-up, tuning and machine inspection at an additional cost of Rs. 8,000 per month, so that scrap of finished goods completely eliminated. However, delivery of uninspected finished products may result in 1% of the quantity sold to be replaced under free warranty due to minor variation in dimensions, Which does not result in the wearing out of the spare as stated in Option-I

(i) Using monthly figures relevant for decision making, advise which option is more beneficial the company from a financial perspective

(ii) Identify the quality costs that can be classified as

(a) Appraisal costs and

(b) External failure costs.

(4 Marks)

Q-2 (d) TP Ltd. produces a product which passes through two processes-cutting and finishing.

The following information is provided:

	Cutting	**Finishing**
Hours available per annum	50,000	60,000
Hours needed per unit of product	5	12
Fixed operating costs per annum excludingdirect material	10,00,000	10,00,000

The selling price of the product is Rs.1,000 per unit and the only variable cost per unit is directmaterial, which costs Rs.400 per unit. There is demand for all units produced.

Evaluate each of the following proposals independent of each other

(i) An outside agency is willing to do the finished operation of any number of units between5,000 and 7,000 atRs.400 per unit.

(ii) An outside agency is willing to do the cutting operation of 2,000 units at Rs.200 per unit

(iii) Additional equipment for cutting can be bought for Rs. 10,00,000 to increase the cutting facilityby 50,000 hours, with annual fixed cost increased by Rs.2 lacs.

(3 Marks)

Q-3 (a) Mobe Co manufactures electronic mobility scooters. The company is split into twodivisions: the scooter division (Division S) and the motor division (Division M). Division M supplieselectronic motors to both Division S and to external customers. The two divisions run as autonomously as possible, subject to the group's current policy that Division M must make internal sales first before selling outside the group; and that Division S must always buy its motors from Division M. However, this company policy, together with the transfer price which Division M charge Division 5, is currently under review.

Details of the two divisions are given below.

Division S

Division S's budget for the coming year shows that 35,000 electronic motors will be needed. An external supplier could supply these to Division S for Rs.800 each.

Division M

Division M has the capacity to produce a total of 60,000 electronic motors per year. Details of Division M's budget, which has just been prepared for the forthcoming year, are as follows:

Budgeted sales volume (units)	60,000
Selling price per unit for external sales of motors	Rs.850
Variable costs per unit for external sales of motors	Rs.770

The variable cost per unit for motors sold to Division S is Rs.30 per unit lower due to cost savings on distribution and packaging

Maximum external demand for the motors is 30,000 units per year.

Required

Assuming that the group's current policy could be changed, advise, using suitable calculations, the number of motors which Division M should supply to Divisions S in order to maximise group profits. Recommend the transfer price or prices at which these internal sales should take place.

Note: All relevant workings must be shown.

(5 Marks)

Q-3 (b) A company has prepared the following budget for the forthcoming year:

	Rs. lakhs
Sales	20.00
Direct materials	3.60
Direct labour	6.40
Factory overheads:-	
Variable	2.20
Fixed	2.60
Administration overheads	1.80
Sales commission	1.00
Fixed selling overheads	0.40
Total costs	18.00
Profit	2.00

The policy of the company in fixing selling prices is to charge all overheads other than the prime costs on the basis of percentage of direct wages and to add a mark-up of one -ninth of total costs for profit.

While the company is confident of achieving the budget drawn up as above, a new customer approached the company directly for execution of a special order. The direct materials and direct labour costs of the special order are estimated respectively at Rs.36,000 and Rs. 64,000. This special order is in excess of the budgeted sales as envisaged above. The company submitted a quotation of Rs.2,00,000 for the special order based on its policy. The new customer is willing to pay a price or Rs.1,50,000 for the special order. The company is hesitant to accept the order below total cost as,according to the company management, it will lead to a loss.

You are required to state your arguments and advise the management on the acceptance of the special order.

(4 Marks)

Q-3 (c) Amber Ltd. is a leading company in the Footwear Industry. The company has four factories in different locations with state of the art equipment's. Due to competition in the market, company is continually reviewing its product range and enhancing its existing products by developing new models to satisfy the demands of its customers.

The company currently has a production facility which has a capacity of 3500 standard hours perweek.

Product 'Comfort' was introduced to the market six months ago and is now about to enter the maturity stage of its life cycle.

However, research by the marketing department indicates that demand of the product 'Comfort in the market is price sensitive. The likely market responses are as follows

Selling price per unit (Rs.)	1750	1600	1525	1450	1300
Sales demand per week (units)	550	725	1000	1150	1200

The variable cost per unit of manufacturing 'Comfort' is Rs.750.

Standard hours used to manufacture one unit is2 hours

Product ‘Sports’ was introduced to the market two months ago using a penetration pricing policy and is now about to enter its growth stage. Each unit has a variable cost of Rs.545 and takes 2.50 standard hours to produce. Market research has indicated that there is a linear relationship between its selling price and the number of units demanded, of the form P= a - bx. At a selling price of Rs 1000 per unit demand is expected to be 1000 units per week. For every Rs 100 increase in selling price the weekly demand will reduce by 200 units and for every Rs.100 decrease in selling price the weekly demand will increase by 200 units.

Product Ethnic' is currently being developed and which is about to be launched in the market. This is a highly innovative designer product which the company believes that it will have a revolutionary impact on the marketand consumer behaviour. The company has decided to' use a marketskimming approach to pricing this product during its introduction stage.

Required:

(a) (i) Advise which of the above five selling prices should be charged for product ‘Comfort’, in order to maximize its contribution during its maturity stage.

(ii) Calculate the number of units to be produced of product ‘Sports’ in order to utilize all of the spare capacity from your answer to (i) above and the selling price per unit of product ‘Sports’ during its growth stage.

(b) Compare penetration and skimming pricing strategies during the introduction stage, using product 'Ethnic' to illustrate your answer.

(C) Explain with reasons, for each of the stages of ‘Ethnic’s product life cycle, the changes that would be expected in the

(i) Average unit production cost

(ii) Unit selling price

(8 Marks)

Q-3 (d)

Particulars	**Division A**	**Division B**
	Rs. per unit	**Rs. per unit**
Variable cost	10	16
Transfer price at market value	-	20
Fixed Costs	5	10
Profits	5	24
Transfer Price/selling price	20	70

Division A can Sell externally at Rs. 20 per unit or transfer internally to Division B at Rs. 20 per unit.

Division B receives an offer from a customer of Rs. 30 per unit for its final product.

Requirements

(a) Would Division B accept the offer of Rs. 30 per unit given the existing transfer price?

(b) Is this the correct decision from the company's point of view

- **(i)** Division A has surplus capacity?
- **(ii)** Division A is operating at full capacity?

(3 Marks)

Q-4 (a) A-One Automobile is manufacturer of Motor Bikes. A-one is based in a country which recentlybecame liberal and global economy. Hence till the time, when businesses in country wascontrolled by government and the government, in order to maintain price and domesticdemand, regulates the market to maintain the uniformity in the prices determined by theentities.

The country is large enough with widespread populations with high density; there is high demand for motor bike as large population of country is in the age group of 18-24 years.

A -one automobile enjoys reasonable market share. The new government in country believes in deregulatingmarkets and allows the imports of reign motor bikes.

Management team at A–One acknowledge that it utmost needs to make changes to its process in order to respond the competitionfromforeignmanufacturers.Further A-One’s MotorBikes are now being seen as expensive product in comparison to the foreign competition because A-One motor bikes are costly. Currently, finance department uses traditional standard costing and budgetary variance analysis on the basis of standards set semi-annuallyin order to monitor and control production activities. Management at A-One plans to improve its performancethrough the use of Kaizen costing

Required:

(i) RECOMMEND key changes significant to A-One’straditionalcostingsystem to support the adoption of ‘Kaizen Costing Concept’.

(ii) LIST the impact of implementation of the Kaizen costing approach on the employee management at A-One.

(5 Marks)

Q-4 (b) The Business Digest, a fortnight business magazine, in its recent release has published an article titled "Why you can safely ignore Six Sigma". This was highly critical of Six Sigma. The pointed criticism levelled under five sequentially numbered paras which are listed herein below:

(i) The results often don't have any noticeable impact on company financial statements. Thus, Six Sigma success doesn't assure you the higher stock values. This is true for 90 percent of companies that implement Six Sigma.

(ii) Only early adopters can benefit from the implementation of Six Sigma.

(iii) Six Sigma focuses on defects which are subjective to determine for service business.

(iv) Six Sigma can't assure that your product will have market.

(v) Substantial infrastructure investment is required.

How would you RESPOND to these statements?

(5 Marks)

OR

Q-4 (b) SW & Co is a firm of Chartered Accountants having head office at Delhi and four branches in different parts of Northern region. They are providing wide range of services to their esteemed clients. Their core services include Taxation, Corporate Audits, Bank Audis Management Audits and Project financing. The firm is preparing its budgets for the financial year 2019-20.

The senior partners of the firm have stated that they would like to pay off the firm's loan taken from a public sector bank two years back for the renovation of their office premises this year and to have a positive cash reserve ofRs.2,00,000 by the end of the year.

While comparing the actual cost with the budgeted data of last year, it was revealed that traveling costs were much higher than the budgeted costs. Fees receivable from some clients were so pending for more than three years thus distorting the expectations of cash budget.

DISCUSS the differences between feedforward control and feedback control using the above information about the cash budget of SW & Co.

(5 Marks)

Q-4 (c) ABC Ltd an Investment company undertakes share market research for its clients.To design a tailor made investment strategy for clients the designated team of staff takes 4 months theteam comprises involvement of 3 divisions

Types of staff used	**Proportion of variable costs incurred for respective months**				**Total Variable Cost**
	April	**May**	**June**	**July**	
Data Collection	20%	30%		50%	100%
Research		40%	40%	20%	100%
Advisory	30%	10%	40%	20%	100%

The variable costs of ABC Ltd are distributed among the 3 categories of staff in the following ratios:

Department	**Share in total variable costs incurred**
Data Collection	30%
Research	50%
Advisory	20%
Total Variable Cost	100%

The contribution from each department would be at the following percentages:

Department	**Required Contribution as a percentage on variable costs**
Data Collection	100%

Research	80%
Advisory	150%

For calculation of monthly revenue generated the value of work executed is divided on the following lines:

April	30%
May	20%
June	30%
July	20%

The work executed by ABC Ltd in the month of April is Rs.3,00,000, May Rs.2,00,000, June Rs.3,00,000 and in July Rs.2,00,000.

Required:

Calculate the additional order to be received if the targeted contribution that the company wants to earn is Rs.1,50,000 for the period April to July.

(You may assume that no fixed costs are relevant in arriving any calculations and the profitpercentage of July is to be considered for calculating the additional order required in July)

(10 Marks)

Q-5 (a) Y Limited is a manufacturer of Cardboard boxes. An analysis of its operating income between 2016 and 2017 shows the following:

	Income Statement (amount in 2016)	Revenue & cost Effect of Growth component in 2017	Revenue & cost Effect of Price Recovery component in 2017	Cost Effect of Productivity component in 2017	Income Statement (Amount in 2017)
Revenue (Rs.)	40,00,000	2,00,000(F)	4,20,000(F)	-	46,20,000
Cost (Rs.)	29,20,000	60,000(A)	2,56,000(A)	58,000(F)	31,78,000
Operating Income (Rs.)	10,80,000	1,40,000(F)	1,64,000(F)	58,000(F)	14,42,000

Y limited sold 4, 00,000 boxes and 4, 20,000 boxes in 2016 and 2017 respectively. During 2017 the market for cardboard boxes grew 3% in terms of number of units and all other changes are due to company's differentiation strategy and productivity.

Required

Compute how much of the change in operating incomefrom 2016 to 2017 is due to the industrymarket size factor, productivity and product differentiation and also reconcile the profit of both years due to these factors.

(10 Marks)

Q-5 (b) Victoria-Yeeland Logistics (Victoria) is a logistics support business, whichoperates a fleet of Lorries to deliver packages of goods on behalf of its customers within the country of Yeeland. Victoria collects packages from its customers' manufacturing sites or from the customers' port of importation and delivers to the final user of the goods. The Lorries are run and maintained from a set of depots spread throughout Yeeland.

The overall objective of Victoria is to maximise shareholder wealth. The delivery business in Yeeland is dominated by two international companies and one other domestic business and profit margins are extremely tight. The market is saturated by these large operators and a number of smaller operators. The cost base of Victoria is dominated by staff and fuel, with fuel prices being highly volatile in the last few years.

In order to improve performance measurement and management at Victoria, the chief financial officer (CFO) plans to use the balanced scorecard (BSC). However, she has been pulled away from this project in order to deal with an issue with refinancing the business' principal lending facility. The CFO has already identified some suitable metrics but needs you, as her assistant, to complete her work and address any potential questions which might arise when she makes her presentationon the BSC to the board. The CFO has completed the identification of metrics for three of the perspectives (Appendix 1) but has yet to complete perspective. This should be done using the data given in Appendix 2.

Additionally, two issues have arisen in the reward management systemat Victoria, one in relation to senior management and the other for operational managers. Currently, senior management gets a fixed salary supplemented by an annual bonus awarded by the board. Shareholders have been complaining that these bonuses are not suitable. The operational managers alsoget bonuses based on their performance as assessed by their management superiors. The operational managers are unhappy with the system. In order to address this, it has been suggested that they should be involved in bonus target setting as otherwise there is a sense of demotivation from such a system. The CFO wants an evaluation of this system of rewards in light of the introduction of the BSC and best practice.

Required:

(a) Discuss how Victoria's success in the customer perspective may impact on the metrics given in the financial perspective.

(b) Recommend, with justification, and calculate a suitable performance metric for each customer perspective success factor. Comment on the problems of using customer complaints to measure whether packages are delivered safely and on time.

(c) Advise Victoria on the reward management issues outlined by the CEO

Appendix 1

Financial perspective

(How do we appear to our shareholders?)

Return on capital employed

Profit margin

Revenue growth

Customer perspective

(How do we appear to our customers?) Success factors:

Ability to meet customers transport needs

Ability to deliver packages quickly

Ability to deliver packages on time

Ability to deliver packages safely

Internal process perspective

(What business processes must excel?)

Time taken to load and unload Lorry capacity utilisation

Learning and growth perspective

(How do we sustain and improve our ability to grow?)

Leadership competence (qualitative judgement)

Training days per employee

Appendix 2

The process:A customer makes a transport request for a package to be collected and delivered to a given destination. The customer is supplied with a time window in which the delivery will occur. Packages are then loaded onto Lorries and delivered according toa route specified by the depot's routing manager.

Total number of customer transport requests	6,10,000
Total number of packages transported	5,48,000
Total number of lorry journeys	73,000
Total package kilometres	65,7,60,000
Total package minutes	13,15,20,000
Number of delivery complaints from customers:	
from damaged packages	8,220
from late delivery (outside agreed time window)	21,920

Notes:

1. All figures are for the last financial year.
2. A package kilometre is defined as a kilometre travelled by one package.
3. A package minute is defined as a minute spent in transit by one package.

(10 Marks)

Q-6 (a) XEE Ltd. is a company which manufactures two types of material for engineering applications. it makes these two types of materials in two production lines: Line 1 and Line 2. Line 2 has different process and is easier in terms of 'getting this fixed at the customers end’ and has longer life (1.5 times the life of Line 1 product).

These are sold in kg. Line 1 hasa capacity to produce 6,50,000 kg. Per annum and Line 2 has a capacity to produce 2,40,000 kg-per annum.

The company management has given a directive to the CEO, CFO and the Sales Head that in no Circumstance the Contribution Margin to Sales shall fall below 40%.

Currently, Line 1 is running at about 92% capacity (3 shifts) and Line 2 at about 33% capacity (1 shift).

The Capacity, costs and portability data for the year 2018-19 are as follows:

Particulars	Line 1	Line 2	Total
Capacity kg.	6,50,000	2,40,000	
Production/ Sales kg	6,00,000	80,000	
Unit Price/ Costs per kg. in Rs.			
Selling Price	180	315	
Variable Cost	(108)	(189)	
Contribution	72	126	
Contribution%	40%	40%	
	Rs. in Lacs	**Rs. in Lacs**	**Rs. in Lacs**
Selling Price	1,080.00	252.00	1,332.00
Variable Cost	(648.00)	(151.20)	(799.20)
Contribution	432.00	100.80	532.80
Overheads			(240.00)
Depreciation			(93.00)

Profit			199.80
Profit %			15%

Scenario 1

At a meeting of the CEO, sales Head and the CFO; the Sales Head informs the team that there is a potential of a one-time 80,000 kg of Line 2 product order from a large customer who can commit on delivery schedules for the whole of 2019-20 kg. at a price of Rs. 250 per kg

The Sales Head also informs that the new customer is aware of the price of product from Line one, the fact that the line capacity is full and the Line 2 product can deliver life which is 1.5 times of the Line 1 product

The Sales Head also informs that he may have to reduce price by Rs.10 per kg for the existing customers i.e., fromRs.315 per kg toRs.310 per kg.

To a question from the CEOthat this would involve additional overheads, the CFO checks on his laptop and informs that for an additional shift of operation of line 2, the incremental overheads would be 6.20 Lacs pa. Pershift (shift supervisors lighting etc.) and depreciation will increaseby Rs.16.00 Lacs pa. Per shift.

The CEO poses the following questions to both the CFO and the Sales Head:

1. Given that the order is one time, what will happen to the fixed overheads committed in 2019-20 and the loss of profits due to reduction in price to existing customers which cannot be increased in the subsequent years?
2. The CEO is also concerned about the reduction in contribution % from the management stipulated 40%. To address the issue the CEO asks both the CFO and the Sales Head to come up with an acceptable pricing for Line 2 for the new one-time customer He indicates to them that the price should be such that the % to Sales to Profit achieved in 2018-19 is maintained
3. Further the CEO mentions that the new customer should also be convinced of the price to be quoted. He also mentions that the sales from Line 1 for 2019-20 will be at the

same level (6,00,000 kg) and at the same price. There are no changes in costs (both variable and fixed) too

Required:

You are the deputy to the CFO and you are requested to come up with RECOMMENDATIONS on:

(i) Ideal Price to be quoted for the new customer with reasons to be proposed by Sales Head to the new customer to convince in to accept the price so quoted.

(ii) Reasons to be mentioned to the management on why the price to be so quoted is acceptable despite the fact that it would resultin a lower contribution margin % than that prescribedby the management.

(iii) Recommend a strategy in consultation with the Sales Manager to make up for the fixed overheads and loss of profits due to reduction in price for the existing customers of line 2 product for subsequent years.

(iv) Also arrive at a price to the new customer at or below which it does not make financial sense to quote and get the order from the new customer with explanations.

Scenario 2

In a different scenario where volumes for the year 2019-20 are assumed to be exactly same as in 2018-19 but price of raw material has increased by Rs.12 per kg for both products manufactured out of Line 1 and Line 2.A price increase by Rs.12 kg for each of the products will result in a drop in contribution % below 40% for both the products. Calculations indicate that the contribution margin can be retained at 40% if the prices are increased by Rs. 20 perkg.

Required:

You are requested to indicate which price increase: Rs.12 per kg or Rs. 20 per kg has to be obtained from the customer and why?

(10 Marks)

Q-6 (b) Sri Manufacturers Ltd. manufactures a single product. Standard cost per unit is as follows:

Particulars		**Rs.**
Materials	12 kgs x Rs.5 per kg	60
Labour	10 hrs. x Rs.7 per hour	70
Variable Overheads	10 hrs. x Rs.3 per hour	30
Fixed Overheads	10 hrs. xRs.3 per hour	30
Profit		60
Selling Price		250

Overheads are allocated on the basis of direct labour hours. In the month of March 2020 there was no difference between the budgeted and actual selling price and there was no opening and closing stock during the period.

The other details for the month of March 2020 are as under:

	Budgeted	**Actual**
Product and sales	2500 units	2000 units
Direct Materials	30,000 kgs @Rs.5 per kg	30,000 kgs @ Rs.5 per kg
Direct Labour	25,000 hrs. @Rs.7 per hour	22,500 hrs. @ Rs.7per hour
Variable Overheads	Rs. 75,000	Rs.67,500
Fixed Overheads	Rs. 75,000	Rs. 75,000

Required:

Reconcile the budgeted and actual profit with the help of variances according to each of the following methods

(i) The conventional method

(ii) The relevant cost method assuming that

(a) Materials are scarce and are restricted to supply of 30,000 kgs for the period.

(b) Labour hours are limited and available hours are only 25,000 hour for the period.

(10 Marks)