

MOCK TEST PAPER – 2

FINAL COURSE: GROUP – II

PAPER – 5: STRATEGIC COST MANAGEMENT AND PERFORMANCE EVALUATION

Question No. 1 is compulsory

*Answer any **four** questions from the remaining **five** questions*

Time Allowed – 3 Hours

Maximum Marks – 100

1. The Crafted Mobile Applications Ltd. ('the company'), is an Indian company, crafting the various mobile applications. Recently the company is going to introduce three new applications, all belonging to different areas and having various features. Details for the same is given below –

The first application is 'Pic X Chat', a social media application. In this application, users can upload images, videos, write something, chat with friends, follow friends, make a group, audio/ video call, post updates etc. Business users can upload their advertisements too. These are similar features as available in other social media applications.

Additionally, in this application users can video call with up to 15 members at a time. User can hide some of the conversation of particular friend, it can be seen by him/her by unhiding it whenever he/she wants. This application features 'Child Safe Mode' to save children from showing any inappropriate content for them, it will be beneficial for users having children or younger siblings.

Further, it restricts adult content in the post as well as chat. Not to compromise privacy of the user, chats are end-to-end encrypted, but the application has feature that highlights the listed words, which are inappropriate or vulgar, to the company, if used in the post or chat and if it is found, the company can restrict that content. This feature included after the news of inappropriate chats in one of the groups in the popular social media application. That news made some parents think about the use of mobile phones by their children and that is why the company hopes that its application would be successful as it has numerous different and crucial features than any other application. The market survey also suggested that people would divert towards this application and consequently its demand will be higher.

Hence, the company wants to charge ₹ 75-150 per click on the advertisement while in the market, rate is ₹ 50-100 per click from business users. However, for other users it would be free of cost like other applications.

The second application is the 'Remote Meet', which is a remote video calling application. It provides similar features like other current video calling applications available in the market. This application is 'Made in India' and has more safeguards compared to its competitor. Generally, basic version of these types of applications is free of charge and for every additional feature, company charges price starting from ₹ 100. But the charges of the company are 20% more than its competitors.

The third application is the 'Mobile Dr.' which is a unique featured application. User of the application can measure his/her temperature through their device and on that basis; it suggests whether the user has any symptoms of any disease. Further, it can identify coughing and sneezing by the person who holds the mobile phone. It can also measure heart beats and pulse beats. It also helps in identifying normal fever.

From the above tests, it can suggest next moves to be taken i.e. symptoms of any disease and need of further health check-up, suggestions of nearby doctors, medical stores, medicines etc. It can also remind the user's regular check-up of sugar, blood pressure, full body check-up, eye testing etc.

It guides in exercise, food habits, water drinking habits etc. It reminds to drink the water as well. It suggests needed calories, proteins, vitamins etc. All these suggestions would be based on height, weight, and other personal details.

To use this application, the mobile phone needs some extra features which will be added in the subsequent production of most of all mobile phones. This application is approved by the Doctors' Association and the Government and suggested by them to use. After the outbreak of the corona virus, the application has potential to be adapted by many users.

In the era of free applications, the company would charge ₹ 500 per year from the user as subscription fees. For advertisements on this application, the company would charge 25%-30% higher than the general market rate of advertisements in other applications.

Required

EXPLAIN and EVALUATE the pricing strategy of each new product introduced by the company.

(3 + 17 = 20 Marks)

2. Art Décor is a marble sculpture making company based out of Jaipur, Rajasthan. It has been making miniature figurines (small statues) for the past many years. It now plans to foray into making larger sizes statues that can be displayed in gardens, resorts or large corporate offices. As a trial it has asked its main designer Raj to come up with an appropriate design model that would appeal to such customers. There is already a competitive market for such larger size statues. However, the management of Art Décor has a skilled artist like Raj who can come up with attractive designs for customers. Within the month, Raj has come up with the appropriate design. Jay is the product manager who likes the design but wants to price it competitively in the market. The costing for 200 statues is as below:

Cost	Amount (₹)
Design cost	5,00,000
Direct materials	20,00,000
Direct manufacturing labour	25,00,000
Variable manufacturing overhead	20,00,000
Fixed manufacturing overhead	5,00,000
Marketing	10,00,000

Required

Reply on following points in brief–

- (i) The target profit required is 25% of revenue. If the sale price per statue is ₹ 45,000 what is the target cost per statue? **(2 Marks)**
- (ii) What is the cost estimate per unit as per the cost information given above? **(2 Marks)**
- (iii) Given your calculations in (i) and (ii) has the target cost per statue been met? **(1 Mark)**
- (iv) During the course of discussions, Jay the product manager found that the designer Raj plans to use high quality marble for these statues. Jay suggests that he use a much lower quality marble material for the statues. This would reduce the material cost by 60%. Skilled labour hours required will also be reduced resulting in direct manufacturing labour to reduce by 50%. Accordingly, what would the revised estimate cost per unit be if value engineering is applied? **(2 Marks)**
- (v) Given your calculations in (i) and (iv) has the target cost per statue been met? **(1 Mark)**
- (vi) Raj the designer does not agree with Jay's proposition given in (iv) above. He feels that inferior quality material would affect the durability of the statue and hence would affect the demand for it in the long run. Instead of value engineering, he feels that 10% increased spending in marketing can increase the selling price per statue to ₹50,000 per statue. The target profit required is 25% of revenue. Given this scenario, what is the target cost per statue? **(2 Marks)**

- (vii) Given the situation in (vi) what would be revised estimated cost per statue after increasing the spend on marketing? **(2 Marks)**
- (viii) Given your calculations in (vi) and (vii) has the target cost per statue been met? **(1 Mark)**
- (ix) What is the estimate profit earned per statue as per (iv) (adopting value engineering) and (vi) (increasing marketing spend)? **(2 Marks)**
- (x) Briefly Advise on this scenario. **(5 Marks)**

Note: Targeted Verbs- Compute and Advise.

3. Gold Coast community operates Homelessness Services (HS) on a not-for-profit basis as a local solution to local housing needs. The primary objective is to meet the accommodation needs of persons within its locality targeting those living in the low/middle income groups and senior citizens. Accommodation is basically furnished; it consists of a small house, with kitchen, bathroom, bedroom(s), and a sitting room. HS manages 450 such houses across various localities. Exclusive Services (ES) is a profit-seeking organisation which provides rented accommodation to the public. ES manages 200 such houses across localities similar to HS' operations.

Income and Expenditure accounts for the year ended 31st March 2023 were as follows:

	HS (₹)	ES (₹)
Rent Received	1,02,98,600	1,09,98,000
Less:		
Employee Costs	24,00,000	38,00,000
Planned Maintenance and Substantial Repairs	34,19,500	10,41,000
Running Repairs	23,91,600	6,38,000
Miscellaneous Operating Costs	15,27,500	11,75,000
Insurance, Property Taxes, and Interest etc.	13,15,500	18,75,000
Operating (Deficit)/ Surplus	(7,55,500)	24,69,000

Operating Information in respect of the year ended 31st March 2023 was as follows:

House and rental information:

Size of House	Number of Houses		Rent per Week (₹)	
	HS	ES	HS	ES
1 Bedroom +	40	20	400	750
2 Bedrooms +	80	40	450	800
3 Bedrooms +	250	140	500	1,175
4 Bedrooms +	80	Nil	700	N.A.

HS had certain houses that were unoccupied during part of the year. The rents lost as a consequence of unoccupied properties amounted to ₹18,17,400. ES did not have any unoccupied houses at any time during the year.

Employees were paid as follows:

Number of Staff		Salary per Staff Member (₹) per annum	
HS	ES	HS	ES
1	2	3,00,000	5,00,000

2	2	2,50,000	3,00,000
4	11	2,00,000	2,00,000
8	-	1,00,000	-

Planned maintenance and substantial repairs undertaken:

Nature of Work	Number of Houses		Cost per House (₹)	
	HS	ES	HS	ES
Miscellaneous Building Work	10	-	12,500	-
Sanitary Fittings (Kitchen + Bathroom) [all are the same size]	45	5	26,100	52,200
AC Upgrades/ Replacements	8	-	15,000	-
Replacement of Wooden Structure for 3-Bedroomed Houses	50	13	40,000	60,000

Running Repairs Information:

Classification of Repair	Number of Repair Undertaken		Total Cost (₹)
	HS	ES	HS
Emergency	480	160	6,72,000
Urgent	990	376	11,28,000
Non-urgent	560	102	5,91,600

Each repair undertaken by ES costs the same irrespective of the classification of repair.

Required

- (i) Critically EVALUATE how the management of Homelessness Services could measure the 'Value for Money' of its service provision during the year ended 31 March 2021. **(14 Marks)**
 - (ii) IDENTIFY, 1 performance measures in relation to Flexibility and Service Quality (dimensions of performance measurement). **(2 Marks)**
 - (iii) ANALYSE, 2 performance measures relating to 'Cost and Efficiency' that could be utilised by the management of Homelessness Services when comparing its operating performance against that achieved by Exclusive Services. **(4 Marks)**
4. (a) Z Limited manufactures three products by using a single machine which has 2,40,000 bottleneck hours per month. The details with regard to the three products are as under:

	Products		
	P1	P2	P3
Selling price per unit (₹)	170	140	180
Direct Material cost (₹)	80	90	120
Direct Labour cost (₹)	30	25	35
Other Expenses (₹)	10	10	5
Maximum Demand (units)	20000	15000	25000
Time required per unit (hours)	6	4	3

Required

Based on the concept of throughput accounting, CALCULATE the optimum number of units to be produced for each product. **(5 Marks)**

- (b) The MD of PQR Limited, a 150 persons engineering company, decided it was time to fire the company's biggest client. Although the client provided close to 60% of the company's annual revenue, PQR Limited decided that dropping this client was necessary. The client was profitable.

The MD of PQR Limited stated "We cannot be a great place to work without employees, and this client was bullying my employees. Its demands for turnaround were impossible to meet even with people working seven days a week. No client is worth losing my valued employees".

The initial impact on revenues was significant. However, PQR Limited was able to cut costs and obtain new customers to fill the void. Moreover, the dropped client later gave PQR Limited two projects on more equitable terms.

Required

- (i) DISCUSS the reasons behind dropping of a profitable client by PQR Limited. **(5 Marks)**

OR

- (ii) STATE five qualitative factors that management should consider in outsourcing and make or buy decisions. **(5 Marks)**

- (c) A manufacturing company manufactures a product and sells its through four dealers X₁, X₂, X₃ and X₄. The transaction details with the dealers during a period is given below:

	X ₁	X ₂	X ₃	X ₄
Selling price p.u. (₹)	200	200	200	200
No. of units sold	2000	3000	5000	4000
Size of order (units)	500	300	250	400
Units delivered per delivery	250	300	250	200
No. of sales visits	8	3	10	2
No. of speed deliveries in total deliveries	1	-	2	-
Distance per delivery (km.)	15	20	10	30
No. of warranty complaints	-	8	-	9

Additional information:

Order processing cost	₹ 50 per order
Cost per sales visit	₹ 2,000
Product handling expenses	₹ 0.20 p.u.
Ordinary delivery cost per km	₹ 3
Speed delivery cost per km	₹ 5
Cost of production	60% of sales
Average expenses per warranty complaint	₹ 6,000

Required

COMMENT on the profitability for each dealer. FIND which dealer is the most profitable.

(6+3+1 = 10 Marks)

5. (a) Golden paints is a manufacturer of industrial dyes. It has received an order for 200 kgs of powder dye that needs to be customized to certain specifications. The job would require the following materials:

Material	Total units required	Units already in inventory	Book value of the units in inventory (₹ per unit)	Realizable value (₹ per unit)	Replacement cost (₹ per unit)
M	2,000	0	NA	NA	8
N	3,000	1,200	7	8	10
O	2,000	1,400	12	9	14
P	500	500	9	12	15

- I) Material N is used regularly in production of all types of dyes that Golden paints produces. Therefore, any stock used towards this job order would need to be replaced to meet other production demands.
- II) Inventory of material O and P are from stock that was purchased in excess previously. Material O has no other use other than for this special order. Material P can be used as a substitute for 700 units of material Z which currently costs ₹11 per unit. The company does not have any inventory of material Z currently.

Required

ANALYSE the relevant costs of material while deciding whether to accept the order or not?

(10 Marks)

- (b) Star Ltd. is engaged in marketing of wide range of consumer goods. A, B, C and D are the zonal sales officers and the company fixes annual sale target for them individually.

You are furnished with the following :

- (1) The standard costs of sales target in respect of A, B, C and D are ₹ 5,82,250, ₹ 4,50,500, ₹ 4,93,000 and ₹ 5,35,500 respectively.
- (2) A, B, C and D respectively earned ₹ 40,800, ₹ 32,400, ₹ 35,520 and ₹ 38,700 as commission at 6% on actual sales effected by them during the previous year.
- (3) The relevant variances as computed by a qualified cost accountant are as follows:

Particulars	A	B	C	D
	(₹)	(₹)	(₹)	(₹)
Sales Price Variance	6,000(F)	8,000(A)	7,000(A)	5,000(A)
Sales Volume Variance	11,000(A)	18,000(F)	19,000(F)	20,000(F)
Sales Margin Mix Variance	10,750(A)	5,500(F)	12,000(F)	9,500(A)

Assume sales margin quantity variance is zero.

Required

- (i) COMPUTE the amount of sales target fixed and the actual amount of margin earned in case of each of the zonal sales officer. **(5 Marks)**
- (ii) FIND whose performance is the best by taking three relevant base factors. **(4+1 = 5 Marks)**

6. (a) The CEO of P Limited is concerned with the amounts of resources currently spent on customers warranty claims. Each box of its product is printed with the logo: "satisfaction guaranteed or your money back". P is having difficulty competing with X Limited because it does not have the reputation for high quality that X Limited enjoys. Since the warranty claims are so high, the CEO of P Limited would like to assess what costs are being incurred to ensure the quality of the product. Following information is collected from various departments within the company relating to 2022-23:

	₹
Warranty claims	1,27,500
Employee training costs	36,000
Rework	90,000
Lost profits from lost customers due to impaired reputation	2,43,000
Cost of rejected units	15,000
Sales return processing	52,500
Testing	51,000

For the year 2023-24, the CEO is considering spending the following amounts on a new quality programme:

	₹
Inspect raw material	36,000
Reengineer the production process to improve product quality	2,25,000
Supplier screening and certification	9,000
Preventive maintenance on plant equipment	21,000

P expects the new quality programme to save costs by the following amounts:

	₹
Reduction in lost profits from lost sales due to impaired reputation	2,40,000
Reduction in rework costs	75,000
Reduction in warranty costs	97,500
Reduction in sales return processing	45,000

Required

- PREPARE a Cost of Quality Statement for the year 2022-23 showing the percentage of the total costs of quality incurred in each cost category. **(3 Marks)**
 - PREPARE a cost benefit analysis of the new quality programme showing how the quality initiative will affect each cost category. **(3 Marks)**
 - STATE how the manager trade-offs among the four categories of quality costs. **(4 Marks)**
- (b) Established in the year 1991, **Mario Woods** Private Limited (MWPL) is one of the distinguished manufacturers and suppliers of an unlimited array of Wooden Furniture Items. Product compilation comprises of Modular Furniture, Workstations, and Cafeteria Furniture. Moreover, it is also engaged in presenting Furniture Services that include Interior Fit Out, Office Interiors and Corporate Interior Designing. Since inception, it has strived to proffer an excellent blend of optimum quality and price, and successfully established the company as the preferred choice of customers in the past years. This is the reason that its products and services are applauded in the

industry for its flawlessness.

At MWPL, a world-class infrastructure is set up with different types of latest technology based machines and equipment, which provide great support in hassle-free production and storage of the proffered assortment. Besides the spacious workspace, it has recruited a team of skilled and experienced professionals, who are magnificently trained to understand and meet the diverse client requirements within the committed time period. It aims to attain complete client satisfaction and put in its best efforts to achieve the same by offering outstanding product range & feasible services.

MWPL's Budgeting Process for Sales

- 1) Each salesgirl makes a customer-wise listing of sales for the last few years. Based on this information and her knowledge about customer's requirements, she determines an overall sales goal.
- 2) The sale manager, W Robert, gathers all this information and modifies it a bit. Particularly, W looks at variance in sales growth and modifies low projections to be in line with the average. He, of course, discusses this correction with the concerned salesgirl. The usual approach is to hold up the other forecasts and attribute lack of sales growth to lower talent.
- 3) W then meets with J Donald, Managing Director. By this time, J already back out of his sales expectations for next year based on his desired profit. J discusses the overall target with the W. The usual result is a 7% to 10% increase in projected sales, which the W allocates among the salesgirls based on their past performance.
- 4) Of course, J desires that the W discuss and negotiate any alteration with the sales force. He believes that with appropriate logics, not high but attainable targets for his sales team can be met.

Required

- (i) DISCUSS the participative nature of the sales budgeting process at MWPL. **(4 Marks)**
- (ii) ADVISE on best approach from MWPL's perspective that may be adopted. **(6 Marks)**