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. **ZA** is the second largest airline in the Country "X". Aviation industry in the Country "X" is growing fast. In 2011, 45 million people travelled to/ from/ or within the Country "X". By 2020 that doubled to 100 million. This number is expected to treble to 300 million by 2030. Also, by 2025, Country "X" is expected to be the third largest air transport market in the world, behind the US and China.

   Government is trying to meet the significant growth potential of aviation Industry. However, it will create challenges also for the airline industry and its industry partners.

   Government also wants to ensure that broader business and policy environment should not place hurdles which inhibit growth and reduce the level of benefits that aviation can deliver to the nation. The industry, its supply chain partners, and the government and policy makers have a clear mandate to work in collaboration towards the common goal of ensuring that aviation's economic and social benefits are fulfilled.

   Despite of operating in World's fastest growing market ZA struggles for passengers. Also, ZA is facing following problems:

   - Aviation Turbine Fuel (ATF) prices constitute about 40% of operational costs in Country "X" and are taxed higher here than anywhere else in the World. The Central government charges 14% duty on ATF. While the state government pile on their own local tax that can go as high as 29%.
   - The currency depreciation is hitting Airline harder. About 25% to 30% of their costs, excluding ATF, are dollar denominated, from aircraft lease rents, maintenance costs to ground handling and parking charges abroad etc.
   - With the entry of Low Budget Carriers, full-service carrier like ZA that have higher overhead costs have been forced to offer discount to passengers looking for great bargain.
   - Continuous improvements in tourism infrastructure, tourism policies, human resources development, airport infrastructure density are among the areas that could further enhance Country "X"'s competitiveness. Ease of doing business over the last five years has risen.
   - The intense competition among domestic airlines carriers, the need to capture a slice of the ever-expanding market and passenger price sensitivity makes the airlines difficult to raise ticket prices.

   Together, these factors have now plunged Country "X"'s aviation industry to its most precarious phase in the last three years or so.

   ZA is facing huge competition as a "year of sharp U-turns" for "X"'s aviation industry from record profit in Financial Year 2019-20 to mega losses, resulting in direct need of recapitalisation. ZA has been appealing to the government for a decade for a reduction in taxes on fuel, but all in vain. ATF is 35-40% more expensive in Country "X" than in the rest of the world, because of relatively high tax rates.

   Required

   Advise the strategy that ZA should follow in order to gain superior performance and competitive advantage over its competitors. **(20 Marks)**

2. X Ltd. first opened its door in 1991 for business and now it is a major supplier of metals supporting over a dozen different industries and employs experts to support each industry. These include Wood & Panel Products Manufacturing, Hearth Products, Site Furnishings, Commercial and Residential Construction etc. It has grown through devotion to its customers, dedication to customer service and commitment to quality products. The company has two divisions: Division 'Z' and Division 'E'. Each division work as an investment centre separately. Salary of each divisional manager is ₹ 720,000 per annum with the addition of an annual performance related bonus based on divisional return on investment (ROI). A minimum ROI of 12% p.a. is expected to be achieved by each divisional manager. If a manager only achieves the 12% target, he will not be rewarded a bonus. However, for every whole 1% point above 12% which the division achieves for the year, a bonus equal to 3% of annual salary will be paid subject to a maximum bonus of 20% of annual salary. The figures belonging to the year ended 31 March 2022 are given below:

	Division 'Z' ('000)	**Division 'E' ('000)**
Revenue	29,000	17,400
Profit	5,290	3,940
Less: Head Office Cost	(2,530)	(1,368)
Net Profit	2,760	2,572
Non- Current Assets	19,520	29,960
Cash, Inventory, and Trade Receivable	4,960	6,520
Trade Payable	5,920	2,800
Manager Responsible	HAI	FAI

During the financial year 2021-22, FAI manager of Division 'E' invested ₹ 13.6 million in new equipment including an advanced cutting machine, which will increase productivity by 10% per annum. HAI, manager of Division 'Z', has made no investment during the year, even its computer system needs updation. Division 'Z''s manager has already delayed payments of its suppliers due to limited cash & bank balance although the cash balance at Division 'Z' is still better than that of Division 'E'.

Required

(i) For each division, COMPUTE, ROI for the year ending 31 March 2022. EXPLAIN the figures used in your calculation. **(6 Marks)**

(ii) COMPUTE bonus of each manager for the year ended 31 March 2022. **(4 Marks)**

(iii) DISCUSS whether ROI provides justifiable basis for computing the bonuses of managers and the problems arising from its use at X Ltd. for the year ended 31 March 2022. **(10 Marks)**

3. **Shyam Paper Mart (SPM)** is in process of getting ISO 14001:2004 Environmental Management Systems (revised ISO 14001:2015) certification. SPM is selling eco-friendly and wheat straw-based paper of different sizes (A3, A4, and A5) and GSM under the brand 'Prime'. Prime is a famous name among both commercial and household consumers.

For purpose of getting certified, a cross-functional team is constituted, which is responsible **'to improve the environmental impact & image of SPM as eco-friendly enterprise and control environmental cost'**, which collects the following particulars relating to the H1 and H2 (first and second half of the relevant fiscal year respectively)

Disposing of the toxic material costs ₹ 1.2 crores to SPM in H2 which is 20% lesser than what was spent during H1. Committee responsible for formulating policy matters on environment-related aspects in SPM has departmental budget of ₹ 6 lakhs p.a., in H1 the utilisation rate was 80% and in H2 it was 110%.

Environmental audits earlier used to conduct on a half-yearly basis, but management decided to reduce the frequency to quarter each, in the mid of such year. Each such audit cost ₹ 8 lakhs to SPM. In the

H2 SPM extends the production capacity and installed the new plant & machinery which has put to use cost of ₹ 77.25 crores, this is the premium version of the plant and machine due to its capability to reduce the generation of waste. Erection and other installation costs including dry-run were ₹ 65 lakhs and the same for all versions. The standard version has on-board cost of ₹ 76.20 crores.

SPM is practicing the recycling policy, which was formulated around three years ago; for the scrap, it generates in its plant. The review of the recycling policy is pending for the last 12 months. The cost incurred during the fiscal year was ₹ 2.75 crores, spent in alignment to scrap generated during the year. The policy document also states– 'zero discharge of waste/scrap into the environment, in order to be true-sense eco-friendly enterprise'.

In H2 contamination test was performed which cost ₹ 4 lakhs to SPM. The monitoring cost incurred during the year was ₹ 78 lakhs; in H2 this was double then H1.

Required

(i) PREPARE the environmental cost statement as per the classification suggested by 'Hanson and Mendoza'. **(6 Marks)**

(ii) ANALYSE the elements of environmental cost at SPM. **(4 Marks)**

(iii) EVALUATE whether the cross-functional team is successful in serving their 'terms of reference'.

(10 Marks)

Note- Clearly State the assumptions (if any).

Annexure

Scrap Generated (during the year)

Quarter	First	Second	Third	Fourth
Scrap generated and recycled	1,572 MT	1,428 MT	1,114 MT	886 MT

4. (a) **'Z Makers'** is one of the largest laundry service provider for Suits. The firm has set a price of ₹ 510 for cleaning the "suit set". 'Z Makers' derived this price as follows: cleaning materials ₹ 35, labour (3 hrs. @ ₹ 50 per hr.) ₹ 150, variable overheads ₹ 70, fixed overheads (3 hrs. @ ₹ 15 per hr.) ₹ 45 plus mark-up 70% on total cost. 'Z Makers' is known for its quality work and timely delivery; hence, customers are willing to pay this premium price. Firm's employees receive a fixed salary. The "hourly rate" ₹ 50 is arrived by dividing the total salary by the total number of hours available. Variable overheads depend on the number of suits cleaned whereas fixed overheads rate is derived at by dividing the total cost of all related expenses by the number of labour hours available. Fixed overheads generally include office rent and administrative salary.

A local hotel approached 'Z Makers' as the regular cleaners of these suits are on strike, about the possibility of cleaning 130 suits in coming week and they need the work done on a rush basis. 'Z Makers' has sufficient quantity of required cleaning material in stock for special order. It perceives that it could complete 60% of the special order during normal working hours. However, to complete the remaining 40%, some employees will have to work overtime. Overtime hours are paid at premium, which could be time and half the normal hourly rate.

Required

ADVISE the price it shall quote for the special order? **(5 Marks)**

(b) The MD of P 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, P Limited decided that dropping this client was necessary. The client was profitable.

The MD of P 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, P Limited was able to cut costs and obtain new customers to fill the void. Moreover, the dropped client later gave P Limited two projects on more equitable terms.

Required

(i) Discuss the reasons behind dropping of a profitable client by P Limited. **(5 Marks)**

OR

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

(c) T is operating its entire business through its four customers T_1, T_2, T_3, and T_4. T_1 and T_2 are small pharmaceutical stores while T_3 and T_4 are large discount stores with attached pharmacies. T prices its products at 25% above variable cost, although all four customers demand and receive a sizable discount off the list price.

The Finance Officer Mr. K has been asked to undertake a customer profitability analysis that shows the profit from each customer and each customer channel, stand-alone pharmaceuticals, and large pharmaceuticals attached to discount stores.

Mr. K identifies ₹ 20,250 of general administration costs to small pharmaceuticals stores and ₹ 48,375 of general administration costs to the large discount stores.

You are required to assist Mr. K in preparing a customer profitability report as desired. Also comment to improve T's profit.

Item	**Small Pharmaceuticals**		**Large Pharmaceuticals**		**Activity Rate**
	T_1	**T_2**	**T_3**	**T_4**	
Number of Orders	4	9	6	3	₹ 750
Order Size	₹ 40,000	₹ 20,000	₹ 4,25,000	₹ 4,00,000	n/a
Average Discount	5%	10%	18%	12%	n/a
Regular Deliveries	4	9	6	3	₹ 375
Expedited Deliveries	2	0	2	0	₹ 1,250

(10 Marks)

5. (a) 'A One Security' manufactures surveillance camera equipment that are sold to various office establishments. The firm also installs the equipment at the client's place to ensure that it works properly. Each camera is sold for ₹ 2,500. Direct material cost of ₹ 1,000 for each camera is the only variable cost. All other costs are fixed. Below is the information for manufacturing and installation of this equipment:

Particulars	**Manufacture**	**Installation**
Annual Capacity (camera units)	750	500
Actual Yearly Production and Installation (camera units)	500	500

Required

The questions below are separate scenarios and are not related to each other.

(i) IDENTIFY the bottleneck in the operation cycle that 'A One Security' should focus on improving. Give reasoning for your answer. **(2 Marks)**

(ii) An improvement in the installation technique could increase the number of installations to 550 camera units. This would involve total additional expenditure of ₹ 40,000. ADVISE 'A One Security' whether they should implement this technique? **(4 Marks)**

(iii) Engineers have identified ways to improve manufacturing technique that would increase production by 150 camera units. This would involve a cost ₹ 100 per camera unit due to necessary changes to made in direct materials. ADVISE 'A One Security' whether they should implement this new technique. **(4 Marks)**

(b) BYZ, a leading school of management in the heart of India's financial centre of Mumbai, preparing its budget for 2019. In previous years, the director of the school has prepared the budget without the participation of senior staff and presented it to the school board for approval.

Last year the Board blasted the director over the lack of participation of his senior staff in the budget process for 2018 and requested that for the 2019 budget the senior staff were to be involved.

Required

LIST the potential advantages and disadvantages to the BYZ of involving the senior staff in the budget preparation process. **(10 Marks)**

6. (a) "Zinc" a brand of Zink Pen and Plastic Limited (ZPPL), is a household name for stationery products. The R&D Division of "Zinc" developed a new pen 'Zentonic' with assorted ink colours with the tagline 'give your writing a Zen energy'.

"Zinc" has used market research/ studies to determine that if price of ₹ 40 is charged for pen, demand will be NIL. It has also been established that demand will rise or fall by 2,000 units for every ₹ 1 fall/ rise in the selling price. The further information is also available in Annexure as a result of these studies.

The Board members in presence of functional heads at ZPPL are discussing the different pricing strategies that can be adopted in context to 'Zentonic'.

Dissension is clearly visible between the marketing head and the finance head. The marketing head is striving to keep the price as low as possible to capture the commercial space and maximise the revenue, whereas the finance head argued in favour of keeping the price high to maximise the profit because the design and R&D of 'Zentonic' will not be matched by the competitors currently. The distinct parameters (revenue and profit) of performance linked pay seem to be the major reason for contradiction between two functional heads. Board members consider both the thoughts and instruct you (management accountant) to drive the price(s).

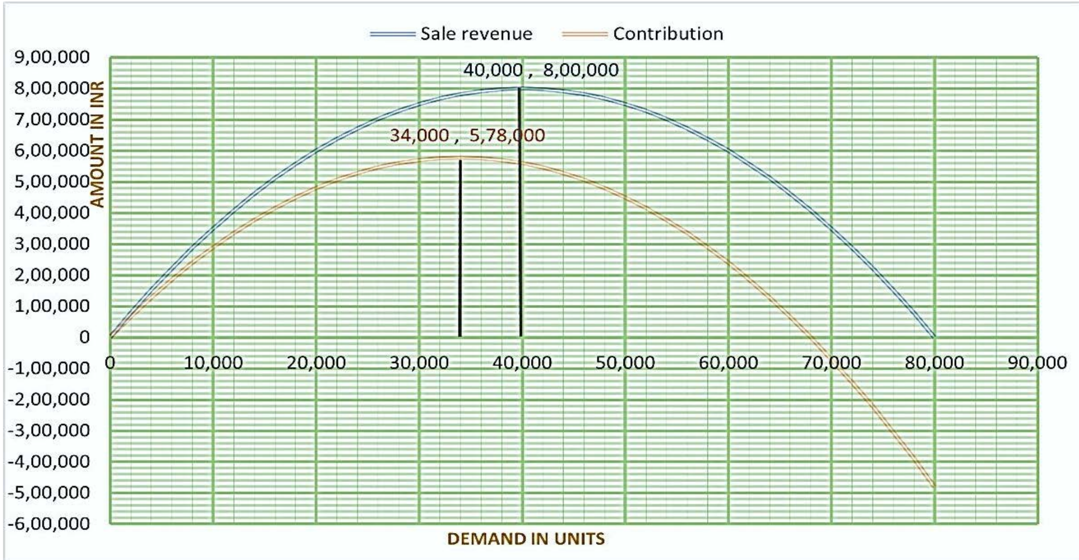
ZPPL diversifies itself into the online learning space and starts a web-based platform 'ZenZick', which offers quality videos for competitive and professional exams such as JEE, NEET, UPSC, KVPY and etc. In order to attract the viewer, 'ZenZick' offers few lectures on fundamental concepts of curriculum after registration at the website without any cost, but for complete access, candidates need to have paid account.

Required

(i) CALCULATE the unit selling price of 'Zentonic' that will maximise revenue and maximise profit. **(4 Marks)**

(ii) ELUCIDATE the pricing strategy advocated by marketing head and finance head for 'Zentonic' and pricing strategy adopted for 'ZenZick'. **(6 Marks)**

Annexure



(10 Marks)

(b) Queensland Chemicals (QC) manufactures high-quality chemicals Q-1, Q-2 and Q-3. Extracts from the budget for last year are given below:

	Q-1	**Q-2**	**Q-3**
Sales Quantity (kg)	1,000	3,250	750
	₹/ kg	**₹/ kg**	**₹/ kg**
Average Selling Price	17,600	2,560	22,400
Direct Material (C_2H_6O) Cost	8,000	1,280	9,600
Direct Labour Cost	3,200	480	4,800
Variable Overhead Cost	320	48	480

The budgeted direct labour cost per hour was ₹160.

Actual results for last year were as follows:

	Q-1	**Q-2**	**Q-3**
Sales Quantity (units)	900	3,875	975
	₹/ kg	**₹/ kg**	**₹/ kg**
Average Selling Price	19,200	2,480	20,000
Direct Material(C_2H_6O) Cost	8,800	1,200	10,400
Direct Labour Cost	3,600	480	4,800
Variable Overhead Cost	480	64	640

The actual direct labour cost per hour was ₹150. Actual variable overhead cost per direct labour hour was ₹20. QC follows just in time system for purchasing and production and does not hold any inventory.

Required

INTERPRET the Sales Mix Variance and Sales Quantity variance in terms of contribution.

(10 Marks)