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Roll No. ....

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Final New Syllabus  
Paper - 5

Total No. of Printed Pages – 16

Time Allowed – 3 Hours

Strategic Cost Management  
& Performance Evaluation

Maximum Marks – 100

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Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be valued.

Question No. 1 is compulsory.

Candidates are also required to answer any **FOUR** questions from the remaining **FIVE** questions.

Working Notes should form part of the respective answers.

No statistical or other table will be provided with this question paper.

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1. Rejuve Hotel is an Indian hotel chain of luxury hotels, based in New Delhi. With over 100 hotels, it is one of the largest hotel chain of the Country. It has a franchise agreement to operate most of its hotels as part of "The Luxury Collection of Fruition International". It is the biggest hotel business operator within the domestic and a well-established player in the international hotel business segment. From the past many decades, the hotel has been catering primarily to the business and premium segment travellers. To create one-of-a-kind style experiences for the domestic and international travellers, the hotel offered exquisite services along with additional segment of services like in-room styling services by a local luxury boutique, provide exclusive hotel photo opportunities, create super personalized hotel amenities, include kid-friendly surprises, in house forex change services.

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The hotel is liberal with the room stay timings such as early check-in and late check-out. They also offered option of auto-upgrade from deluxe/joint room to suite class rooms, if available for free. A free shuttle pick-up and drop services were provided for passengers from the domestic/international airport.

Indian Hotel industry has been growing exponentially in the recent years due to growing economy. Consequently, there have been many new entrants in the domestic segment, offering low-cost rates to customers. These hotels have been offering rooms at huge discounts, thereby attracting a sizable chunk of customers away from the Rejuve Hotel. To counter this and maintain its market share, Rejuve Hotels also followed counter strategy.

For a period of six years, rooms for various domestic travellers were offered at low competitive prices. At the same time, low rates were offered only if it was profitable to do so. Therefore, certain cost management measures were undertaken. The hotel converted itself from "Create One-of-a-Kind Style Experiences" to limited services hotel.

Most of the previously offered exclusive free services by Rejuve Hotels were moved to "paid section". Other measures taken were to immediately terminate the free shuttle pick-up and drop services and to offer last-minute deals for rooms at a heavy discount if the hotel was not fully booked for that date. Vacant rooms are "perishable", therefore instead of letting them go empty, the hotel can be filled at cheaper rates. This yield management measure based on capacity utilization was expected to increase market share and also the hotel's revenue. Rooms could be booked online using the internet or through any associate hotel reception maintained by the hotel group at various locations in selected cities.

In order to quickly respond to a competitor's move, the pricing and marketing staff of the individual hotel were given sufficient autonomy to make this price war work. Therefore, in many situations, decisions could be taken even without the prior approval of the top management. Meanwhile adding to the stiff competition, prices due to inflation have been soaring in the last few years. Maintenance of Hotels, staff compensation and other overheads have also been increasing. Given this scenario, after six years of

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operations, the management at Rejuve Hotels found that they were not able to generate sufficient profits on many of the domestic hotel offers. A price discount by a competitor had to be matched with a similar price discount by Rejuve Hotels and vice versa. Offering last minute deals to fill up hotel to full capacity did not generate additional revenue. The volume of last-minute hotel bookers was low. It was found that most travellers booking at the last minute were anyway "price indifferent". Had the deals not been offered, the traveller would have been willing to pay more money anyway to book the hotel. *Therefore, neither did these deals generate extra customers nor any extra revenue.*

Rejuve Hotels has always been perceived to cater the premium segment traveller, therefore participating in this price war had been contrary to its image of a luxurious hotel. This left a section of the customers confused about the product offering.

Therefore, the management of Rejuve Hotels decided to discontinue its discount pricing strategy and exit the "low cost" hotel business. The rooms are now being offered at its usual "full service" rates. This strategy is proposed to be followed for both current and prospective projects and operations.

In order to improve tourism within the country, the government has been formulating policies that are aimed at changing the landscape of the hospitality sector. Hotels are being built in smaller cities and towns that did not have any one till date. Concurrently with the expansion of its luxury hotel chain in the major metropolitan cities, the Rejuve Hotel Group also expanded its business hotels division in the secondary cities in India. The Rejuve Hotel Group continued to expand its geographic and market coverage in India. It developed specialized operations (such as wildlife lodges) and consolidated its position in established markets through the upgrading of existing properties and development of new properties.

In a new competitive market move, Rejuve Hotels proposed to develop a model where-in travellers booking rooms at smaller towns are redeemable at other hotels within the group in the same price range and category, subject to availability.

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Under this policy, the hotels at the major metro cities will serve as a main hub for travellers touring different cities/towns in a sequence. Rejuve Hotels also proposes to develop few budgeted small rooms with limited amenities in its metropolitan hotels to cater budgeted travellers from small cities. The ultra-luxurious amenities in the hotel will remain paid for such budgeted travellers.

The travellers will have the advantage to relish the ultra-luxurious hotel environment in the metropolitan cities at a very budgeted price. More hotel options within the Rejuve Hotel group will now be available for travellers. For example, a tourist from a smaller city, wanting to travel to another smaller city can take a break at the nearest hub with Rejuve hotels under the same booking plan. For the tourist, this is a better alternative as compared to staying in the hub at a small hotel with limited facilities. For Rejuve group of hotels, the proposition broadens its customer base. To implement this effect, Rejuve began scouting the market for smaller hotels in small cities that can be operated more economically on the hub-spoke route under its brand.

Along with, it discussed role for partnership with airlines, car rentals, city tour operators in order to offer attractive holiday packages to customers. Since most of the other hotels do not have the scale of operations to achieve the "hub-spoke" model or the ability to offer holiday packages, Rejuve Hotels identified this as a unique proposition that it can offer to its customers. The hotel proposed tag line for its advertisement as ***"REJUVENATE at REJUVE ANYWHERE, ANYDAY, ANYTIME"***.

Room booking continued to be offered over the internet using various online digital payments services. In the past, customers liked this option due to the convenience it offered. Dedicated customer service lines available 24x7 to resolve issues is proposed. Pay@Hotel services were also proposed to ease and facilitate bookings by customers. The free shuttle pick-up and drop services were reinstated for passengers from the domestic/international airport and extended to city railway stations and city bus stands.

The management of Rejuve hotel wants to have a seamless implementation of this project. This could be a game changer for the company that will help it to consolidate its position in the hotel industry. Therefore, a meeting has been called to discuss critical reporting that needs to be in place for ensuring a successful launch.

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**Required :**

- |  |   |
|--|---|
| (i) Evaluate the strategy adopted by Rejuve Hotels in becoming a “low-cost” hotel with limited services. | 6 |
| (ii) Identify the strategy adopted by Rejuve Hotels for the proposed project.                            | 4 |
| (iii) Recommend the company to adopt a mechanism to avoid errors in its strategy.                        | 5 |
| (iv) Suggest a control reporting mechanism for timely corrections in the strategy.                       | 5 |

2. (a) Global Bakery is one of the largest bakery service providers for fresh breads. Among all the variants, the focaccia bread is very popular and is favourite of all its customers and envy of its rivals.

The firm has set a price of ₹ 629 for baking the focaccia breads. ‘Global Bakery’ derived this price as follows: raw materials ₹ 40, labour (4 hrs @ ₹ 60 per hr) ₹ 240, variable overheads ₹ 50, fixed overheads (2 hrs @ ₹ 20 per hr) ₹ 40 plus mark-up 70% on total cost.

Global Bakery 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 ₹ 60 is arrived by dividing the total salary by the total number of hours available. Variable overheads depend on the number of breads baked 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 ‘Global Bakery’ as the focaccia bread bakers of their hotel are on strike, about the possibility of delivering 120 focaccia breads in coming week and they need the work done on a rush basis. ‘Global Bakery’ has sufficient quantity of required raw material in stock for special order. It perceives that it could complete 70% of the special order during normal working hours. However, to complete the remaining 30%, some employees will have to work overtime. Overtime hours are paid at premium, which could be time and half the normal hourly rate.

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**Required :**

- (i) Advise the company to determine the price to be quoted for the special order. **5**
- (ii) Comment on the suitability of special order decision to deal with excess supply or excess demand. **5**
- (b) A leading Beauty product company manufactures and sells cream. It sells cream in a container of 200 ml. This container is of one time use. Raw material is procured locally. The raw material is blended with additives and fragrance at the manufacturing plant at specified temperatures to produce cream. **10**

The plant has an automated packing facility. The operator is required to pre-set the quantity and number of 'containers' to be filled in a computerised system. No manual intervention is required thereafter. The cream is filled in 'container' at the first stage of packaging with 200 ml. Caps are fixed on the 'Container' and sealed at the second stage of packaging. The container is weighed at third stage of packaging. After weighing the containers are packed in cartons of 500 containers each.

Any 'Container' having lesser quantity of cream is removed before the 'containers' are packed into the cartons. The 'containers' which are short filled cannot be reused. Once the seal is broken, the 'container' is of no use. There is no process by which the cream in short filled 'container' could be reused. Hence the cream is wasted.

The company is considering a proposal to add a machinery in its packaging unit to avoid losses arising out of quantity issues in packaging. The machinery will be installed after the first stage of packaging. The machinery will measure the volume of cream and will forward the 'container' for capping and sealing only if the quantity in 'container' is correct. In case the 'container' does not have required volume of cream, the 'container' will be topped up with balance cream before the capping and sealing process. By this the company will be able to achieve 0% wastage due to short filling after implementation of new system.

**Required :**

Identify and Explain the type of existing control system in the company and also the type of control system proposed.

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3. A new startup venture ABC Ltd. has successfully entered into their first contract with an offshore pharmaceutical company to supply one of the high demand generic medicines. Expected demand for the medicine will be 98,000 units annually. The plant holds the maximum capacity to 25,200 units per quarter but it can additionally produce 14,000 units per quarter in overtime. Total fixed overheads are expected to be ₹ 16,80,000 for all the quarters. Each unit produced in overtime would incur an additional cost equivalent to 32% of the expected variable cost per unit of that quarter.

Expected sales and variable cost per unit for all quarters are given as under :

Quarter	Q1	Q2	Q3	Q4
Sales (units)	13,300	23,800	25,900	35,000
Variable cost per unit (₹)	36	36	39	42

The production manager has to decide about the production plan.

The choices are :

Plan-1 : Produce at a constant rate of 24,500 units per quarter. Inventory holding costs will be ₹ 7.80 per unit of average inventory per quarter.

Plan-2 : Use a Just-in-Time (JIT) system

Assume that there is no balance of opening inventory.

**Required :**

- (a) Calculate the incremental production cost and the savings in inventory holding cost by JIT production system. 6
- (b) Advise the company on the choice of the plan. 3
- (c) State, any four pros and cons of the JIT Inventory Management. 4
- (d) State Why Kanban and machine cells are critical elements for the JIT Inventory System. 3
- (e) State the difference between Just-in-Time Inventory Vs Economic Order Quantity (EOQ) ? 2
- (f) State any four areas in which JIT purchasing may reduce cost significantly to bring the cost efficiency. 2

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4. (a) Supreme Automation Limited (SAL) is a leading AI based home automation-based manufacturing firm. SAL started its business around 5 years back when it was the only manufacturer of such home automation-based systems. SAL manufactures all assembly components themselves, irrespective of fact that these components can be acquired from market at a cheaper rate. Major component of total costs in manufacturing of such automation systems is variable in nature. Company was performing well, earning reasonably and enjoyed a large market share up-till two years ago majorly due to the first mover advantage. However, with rough macro-economic conditions, an increase in rival competition and more new entrants coming into the market, the resultant market share and thereby, profitability has started shrinking. If no major steps are immediately taken, then company may run into red in a year to come.

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The CEO of SAL attended a workshop where he learnt about the lean management techniques of Cost Management. He asked Mr. X the Chief Management Accountant to report on underlying reasons behind the company's current performance with available set of possible solutions. Mr. X immediately convened a meeting with top ranked officers to address the issues.

The Marketing department confirmed that it is difficult to maintain the same level of sales in upcoming years because the price of SAL automation systems is much higher than price offered by its competitors in the market with similar Quality and features.

The Customer Relations department conveyed that the popularity of their product is declining. They quoted that they receive lot of complaints from buyers in e-mails and tele-calls due to manufacturing defects, which arise in the product within a month period of purchase & frequency of such calls and emails have increased in recent years. They also mentioned that in some cases, customer reported that assembled part did not belong to model they purchased, and some customers say, assembly is not as per the specifications provided in the product datasheet.

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In addition, the maintenance department affirms that the repair issues in case of recently sold products have increased drastically.

The Operations department testifies that firstly large percentage of workers employed with the company are unskilled; secondly, large number of raw materials in each category are dumped by store at the production floor; that's too well prior to requirement. These two reasons cause worker catastrophe in differentiating among parts which appear similar. They also mentioned the entire business process, especially production process is quite old and contains certain activities which are purely unnecessary. To its defence, the purchase department argued about the economics of discount involved behind purchase of large quantities of raw material and also mentioned about possibility of buying too less quantities may lead to stock-out situations.

**Required :**

Prepare a report to advise the CEO pointing out the factors influencing the current performance and policies of the company and also with available set of possible solutions.

- (b) TSK Limited is a mobile manufacturing company. The company using budgets for control which are prepared on traditional basis. The new CEO of the company wants to change the budgeting system from traditional budgeting to Beyond Budgeting in the company on experimental basis.

Therefore, as the management accountant of the company you have been assigned to explore the possibilities of introducing Beyond Budgeting system in the company.

You are required to explain reasons for taking approval of change the budgeting system from Traditional to Beyond Budgeting on following points :

- The advantages and benefits available in Beyond Budgeting. 3
- The suitability of Beyond Budgeting to the company. 2

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HRY Limited is a leading company in the kitchenware industry. Due to competition in the market, company is continuously making R&D to develop new products. Product "Aiken" is currently being developed and is about to be launched in the market. The company has made very heavy expenditure to develop this product. This is a highly innovative product which the company believes that it will change the market and consumer behavior. Production and promotional costs in the launching year are likely to be very high. The CEO of the company has decided to use a market skimming approach for pricing this product during its induction stage.

You are required to analyze the reasons for going with market skimming approach of pricing by the CEO of HRY Limited.

- (c) ABC Ltd. is a manufacturer of motorbikes. It has two divisions, Assembly division 'A' and manufacturing division 'P'. Division 'P' manufactures the part which may be used by division 'A' as well as outside customers. Division 'A' gets its entire requirement for the part from division 'P'. The Division 'P' operates at full capacity, with no inventory at the beginning and end of the year. As per company policy, demand from Division 'A' has priority over external customers. The data of Division 'P' during 2021-22 is as under :

Production Capacity	1,50,000 Units
Sales price to external customers	₹ 6,000 per unit
Variable cost of production per unit	₹ 4,125
Transfer price to Division 'A'	Any opportunity cost in the form of lost sales.
Total Sales including transfer to division P	₹ 81 crores
Sales made to the external customers	75,000 Units.

This year, there was an additional demand from external customers for 27,000 components. However, since Division C operated at full capacity, this demand was not catered to.

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**Required :**

- (i) Analyse the Sales in terms of ₹ and units made by Division 'P' to both external and internal customers. **3**
- (ii) Recommend the transfer pricing range that would promote goal congruence between divisions A and P. **2**
- (iii) Discuss the effect of changes in external demand on the transfer price for the company, assuming the current policy continues. **2**
- (iv) Discuss the advantages, disadvantages and behavioral Consequences of Transfer Pricing at Variable Cost method. **3**

5. (a) *Aeron Electrical Solutions (AES)* is a renowned firm for manufacturing a wide range of electrical appliances for professional and domestic use. The *Scriver division* of Aeron Electrical solutions is engaged in the manufacturing of motorized screw driving machines capable of handling high-end commercial loads. They are particularly very popular in automation plants where the tasks are pre-defined and accuracy is the primary concern. The Scriver division is presently manufacturing only three models namely SD-100, SD-200 and SD-500 based on the increasing order of incorporated features and complexities.

During the manufacturing process, each screw driving machine needs to pass through various level of steps, before it gets ready. One of the manufacturing steps involved manual intervention wherein the programming of the processing chip for automation is done post installation and tested before passing to the next stage. This process is termed as Processor Manual Programming for Automation (PMPA). The production capacity of Scriver division is constrained by PMPA.

The basic information pertaining to top-line and prime cost is as follows :

(Amount in ₹)

Particulars	SD-100	SD-200	SD-500
Sale price per unit	168	240	540
Material cost per unit	86.4	124.8	240
Labour cost per unit	36	63	90

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All the process and division at AES are operating for a single shift of 8 hours in a day. Conversion cost per hour (including labour cost) is ₹ 6,720. The standard out-put for PMPA during a day is the processing of either 960 units of SD-100 or 672 units of SD-200, or 384 units of SD-500.

AES is capable of sale more than, what they are presently capable to produce in all range of models.

The CEO of AES recently attended a science exhibition, Robo-tech 2022; where he saw a Robot developed by Micro Robotics Limited, capable to assembly including installation and programming of processing chip to any sort of device.

You are required to advise the company as management accountant on following aspects :

- |       |   |   |
|-------|---|---|
| (i)   | On a random day if 576 units, 168 units and 144 units of SD-100, SD-200, and SD-500 respectively are produced and sold, CALCULATE at what efficiency level current constraint (bottleneck) is operational. INTERPRET the same. COMPUTE profit earned during such day. | 3 |
| (ii)  | Considering the ranking based upon throughput performance ratio, find production of which model is more beneficial for the firm ?   | 3 |
| (iii) | Apply Goldratt's five steps to remove the bottleneck at Scriver Division.   | 4 |
- (b) The TVA Multiplex Pvt Ltd. (TMPL) is a movie theatre chain in India with its headquarter located in Mumbai. Each centre has a cinema with a minimum of 8 screens equipped with IMAX & 4DX technologies, and mainstream auditoriums. It is the biggest chain of Multiplexes showing latest released movies across the country. The business of cinema is extremely competitive in all regions. Each centre operates autonomously and managers are able to offer best services in terms of customer experience and cleanliness.

TMPL's mission statement is "to inspire and enhance customer experience by using latest technologies and experience". To establish long term relationship of trust and commitment with clients, TMPL wants to provide their client highest level of satisfaction with emphasis on

- Best in class Audio and Video Services
- Professionalism, Comfort and Hygiene
- Client's Feedback

Company has developed a website where it creates blogs, post high-quality content related to newly released movies. Website is also connected to social media to reach customers. If a customer searches TMPL's services on search engine, it automatically redirects to the place of nearest TMPL cinema for customers comfort and ease. TMPL's majority of tickets are booked through online channel.

Results for one of the centres, "VT Cinemas", are given below. The column headed "Centre's" shows the **average figures** for all TMPL cinemas :

Particulars	VT Cinemas Apr'22	Centre's Apr'22
Revenue (₹)	45,63,000	54,33,450
Gross profit (₹)	24,25,200	25,68,870
Number of senior Managers	45	55
Number of junior staff	30	28
Number of website hits	7,505	9,630
Total number of services booked online and completed	4,958	6,135
Number of services taken from repeat customers	755	802
Total time spent on completing maintenance tasks (hours)	12,060	12,940
Number of new combo packages	3	2
Customer percentage in terms of feedback forms showing score of 9 or 10	88%	79%

Notes :

- (i) Managers are categorized as 'senior' if they have been qualified for more than five years.
- (ii) Junior staff includes both trainees and staff who have been qualified for less than five years.
- (iii) The VT Cinemas launched three new combo packs during the year :
  - free food coupon of worth ₹ 450 for bookings over and above ₹ 1,000.
  - a Premium Recliner seat costing only ₹ 260, instead of the usual ₹ 520, for 5 days advanced bookings.
  - a Popcorn meal charged at ₹ 100, which usually costs ₹ 300, for all customers booking for minimum of 6 tickets.

These three new combo packs produced revenues of ₹ 3,96,000; ₹ 3,48,000 and ₹ 3,24,000 respectively. Two comparable new combo packs developed by other centre's produced revenues of ₹ 2,64,000 and ₹ 2,52,000.
- (iv) Customers to rate the particular centre from 1 to 10 in an online feedback form with 10 being the best.

**Required :**

The Chief Executive Officer (CEO) of TMPL has recently attended a webinar and heard about Building Block Model of Performance Management. The CEO is interested to know how the dimensions block could be applied at TVA Multiplex Pvt Ltd.

- (i) Analyse VT Cinema's performance relative to the other Centres. 8
- (ii) Explain how the Standards and Rewards block support the Dimensions block in case of Building Block Model. 2

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6. (a) During the second peak wave of Covid-19 in April 2021 in the country, many patients were deprived of oxygen due to its non-sufficient availability at the hospitals. A private company ABC Limited offers the government to manage the delivery and ensuring the availability of liquid oxygen at all hospitals of locale within the expected time limit. 10

ABC Limited plans to manage 1,68,750 metric tons of liquid oxygen at the rate of ₹ 6.00 per metric ton. The company estimates that variable cost (all resources) will be equal to ₹ 1.50 per metric ton and that fixed costs (Cryogenic Oxygen tanker rent, driver wages, fuel and maintenance charges) will be equal to ₹ 1,04,400 per month.

In April 2021, ABC Limited managed 2,02,500 metric ton liquid oxygen and received ₹ 10,12,500 as total revenue. However, ABC Limited paid ₹ 3,24,000 on resources (including urgent purchase of PPE kits and other safety equipment). In addition, ABC Limited paid ₹ 1,10,000 for Cryogenic Oxygen tanker rent, fuel and maintenance charges under fixed costs. This past April was unusually high with infections and more than expected hospitals needed oxygen urgently. Due to the time constraint and urgency, ABC Limited resorted to use extra Cryogenic Oxygen tankers than expected which were partially filled with liquid oxygen. As a result, ABC limited has to incur extra expenses for Cryogenic Oxygen tanker rent, fuel and additional driver's wages.

**Required :**

Prepare a budget reconciliation report along with suitable analysis.

- (b) Yummy Foods Limited (YFL) is known to be the leading restaurant in India offering best in quality foods to its customers at very reasonable prices. YFL has made its credit pioneering effort and service for over one decade in development of domestic and international cuisines with its decade old unique recipes & hygiene. One of its Signature dishes is produced by mixing and cooking with three main ingredients: A1, A2 and A3. It uses a standard costing system to monitor its costs. The standard material cost for 120 kg of the Signature dish is as follows : 10

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Ingredients	Standard Qty (Kg)	Cost per kg (₹)	Cost per 120 kg of "Signature Dish" (₹)
A1	48	4	192
A2	72	5	360
A3	23	3.5	80.5
	<b>143</b>		<b>632.5</b>

Notes :

A1, A2 and A3 are organic & region-specific products. Their quality and price change significantly every year. Standard prices are determined at the average market price over the last three years YFL has a purchasing manager responsible for purchasing and pricing. The standard mix is decided by the Managing Partner having 15 years rich experience in food recipes. The last time this was done at time of launching the signature dish was six years back. The standard mix has not been changed since.

Mixing and cooking process are subject to some evaporation losses.

In current month 5,520 kg of "Signature dish" was produced, using the following ingredients :

Ingredients	Actual Qty. (Kg)	Cost per Kg. (₹)	Total Cost of "Signature Dish" (₹)
A1	2,528	3.8	9606.40
A2	2,891	6	17,346.00
A3	947	4.1	3,882.70
	<b>6,366</b>		<b>30,835.10</b>

At every month end, the production manager receives a statement from the Managing Partner. This statement contains material price and usage variances for the month and no other feedback on the efficiency of the processes is provided.

**Required :**

Evaluate the performance measurement system in YFL.

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