

**CMA JUNE-2020 EXAMINATION
OPERATIONAL LEVEL
SUBJECT: P1. PERFORMANCE OPERATIONS**

Time Allocated: Three hours

Total Marks: 100

Instructions to Candidates

There are three sections (that is A, B & C) in this paper. You are required to answer ALL questions.

Answers should be properly structured, relevant and computations need to be shown wherever necessary.

You are strongly advised to carefully read ALL the question requirements before attempting the question concerned (that is all parts and/or sub-questions).

ALL answers must be written in the answer book. Answers written on the question paper will not be submitted for marking.

Start answering each question from a fresh sheet. Your answers should be clearly numbered with the sub-question number then ruled off, so that the markers know which sub-question you are answering.

Section	No of questions in the Section	No of sub-questions in the Section	Marks allocation
A	01	08	20%
B	01	05	30%
C	02		50%

TURN OVER

SECTION A – 20 MARKS

This section consists of 1 question and 8 sub-questions.

You are advised to spend no longer than 36 minutes on this section. Section will carry 20 marks and one sub-question will carry 2.5 marks each.

Question 01

- (a) Differentiate between Throughput accounting and Backflush accounting. **[Marks: 2 ½]**
- (b) Distinguish between Mix Variance and Yield Variance. **[Marks: 2 ½]**
- (c) Discuss the motivational factors in involving functional managers in the setting of functional budgets. **[Marks: 2 ½]**
- (d) What are the main uses of forecasts based on the statement of financial position? **[Marks: 2 ½]**
- (e) State the three-step method of decision tree analysis. **[Marks: 2 ½]**
- (f) State the attitude to risk of a manager that is risk averse. **[Marks: 2 ½]**
- (g) What is the difference between trade credit and consumer credit? **[Marks: 2 ½]**
- (h) List three reasons for holding cash. **[Marks: 2 ½]**

END OF SECTION A

SECTION B Starts on page 3

Section B

This section consists of 1 question and 5 sub-questions.
You are advised to spend no longer than 9 minutes on each sub-question in this section.
Section will carry 30 marks and one sub-question will carry 6 marks each.

Question 02

- (a) SMART BACKPACK Co. (SBC) was established in 2015 and manufactures a range of Travel backpack and Laptop backpack which it makes from cloths purchased from a number of suppliers. The recently appointed Managing Director has expressed increasing concern about the trends in falling sales volumes, rising costs and hence declining profits over the last two years. There is general agreement amongst the managers of SBC that these trends are the result of the increased intense competition that has emerged over the last two years. SBC continues to have a reputation for high quality but this quality is now being matched by the competition. The competitors are taking SBC's share of the market by selling equivalent products at lower prices. It is thought that in order to offer such low prices the production costs of the competitors must be lower than SBC's.

Required:

Discuss how SBC could improve its sales volumes, costs and profits by using (i) value analysis and (ii) functional cost analysis.

[Marks: 6]

- (b) The costs of operating the canteen at 'Eat a lot Company' for the past three months is as follows.

<u>Month</u>	<u>Cost (Tk.)</u>	<u>Employees</u>
January 2020	72,500	1,250
February 2020	75,000	1,300
March 2020	68,750	1,175

Required:

- (i) What is the variable cost per employee per month?
(ii) What is the fixed cost per month?

[Marks: (3+3) = 6]

- (c) Product B requires 4.5 kg of material per unit. The standard price of the material is Tk.6 per kg. The budgeted production for last month was 750 units. Actual results were as follows.

Material used	2,250 kg
Production	780 units
Material cost	Tk.14,175

Due to worldwide increases in the price of the material used it was realized, after the month had ended, that a more realistic material standard price would have been Tk.6.50 per kg.

Required:

- (i) Calculate planning and operational variances for material costs for the month.
(ii) State three possible causes of the operational usage variance you have calculated.

[Marks: 6]

SECTION B Continues on page 4

- (d) SSS Sound Systems Limited begins each week with 450 phasers in stock. This stock is depleted each week and reordered. If the carrying cost per phaser is Tk. 37 per year and the fixed order cost is Tk. 125.

Required:

- (i) What is the total carrying cost?
- (ii) What is the restocking cost?
- (iii) Should SSS increase or decrease its order size? Describe an optimal inventory policy for SSS in terms of order size and order frequency.

[Marks: 6]

- (e) Three investors are considering the same investments. The net returns from the investments depend on the state of the economy and are illustrated as follows:

State of the economy	Returns from investment			Probability of economic state
	A Tk.	B Tk.	C Tk.	
Good	6,000	14,000	3,000	0.1
Fair	5,000	3,000	5,000	0.4
Poor	4,000	500	8,000	0.5

Details on the attitudes to risk of the three investors are as follows:

- Mizan is risk neutral
- Zahir is a risk seeker
- Jaman is risk averse and typically follows a minimax regret strategy with his investments.

Required:

Calculate which investment would be best suited to each investor's risk attitude.

[Marks: 6]

END OF SECTION B

SECTION C Starts on page 5

The selling price of the new product in Year 1 will be Tk.45 and the variable cost per unit will be Tk.25. The selling price and the variable cost per unit are expected to increase by the rate of inflation each year.

The Oxygen Cylinders will be exclusively produced in the new manufacturing facility. The total fixed costs in Year 1 will be Tk.2.5 million including depreciation. The fixed costs are expected to increase thereafter by the rate of inflation each year.

Taxation

SS's Financial Director has provided the following taxation information:

- Tax depreciation: 25% per annum of the reducing balance, with a balancing adjustment in the year of disposal.
- Taxation rate: 30% of taxable profits. Half of the tax is payable in the year in which it arises, the balance is paid in the following year.
- SS has sufficient taxable profits from other parts of its business to enable the offset of any pre-tax losses.

Other information:

- A cost of capital of 12% per annum is used to evaluate projects of this type.
- Inflation is expected to be 4% per annum throughout the life of the project.

Required:

- (a) Evaluate whether SS should go ahead with the investment project. You should use net present value as the basis of your evaluation. Your workings should be rounded to the nearest Tk.000.
- (b) Explain two other factors that the company should consider before making a final decision about the investment project.
- (c) Calculate the following for the investment project:
 - (i) The internal rate of return (IRR);
 - (ii) The increase or decrease in the cost of capital, expressed as a percentage of the original cost of capital, which would change the decision about whether to accept or reject the project.

[Marks: {14+4+(5+2)} = 25]

End of the Exam Paper