For Old Students

স্কুল অব বিজনেস

Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1ˢᵗ Level)

Course Title: Management and Organization   **Submit by: March 27, 2020**

Instructions for Assignment Submission
1. *Answer all questions in your own handwriting on A4 size white paper.*
2. *Fill-in the cover page (see page#5 of Semester Calendar) of your assignment with care.*
3. *Submit the assignment to the study centre coordinator or his delegate and ensure his/her signature on your Assignment Acknowledgement Form (see page#6 of Semester Calendar).*
4. *Don't make spiral binding. Instead, make soft binding.*
5. *If your e-mail address is not yet added to our e-mail list, please send a mail stating your ID Number and Level to* **zahirunimp14@gmail.com** *with the subject "Add Me".*
6. *In the case of delayed submission, the School will not acknowledge the submission of the assignment(s) and will not be responsible for any damage or loss of the assignment(s).*
7. *If it is noticed that your assignment is copied from another student's assignment, your assignment will automatically be cancelled or graded poor.*

Questions:

1. (a) What is management and relate it with organizational behavior?
   (b) Describe the managerial challenges and changes faced by today's managers.
   (c) Explain the variables of organizational behavior.

2. (a) Why should we understand perception and attribution? Explain.
   (b) What is perception? Explain the perceptual distortion of perception.
   (c) What do you mean by personality? Describe the BIG FIVE model of personality traits.

3. (a) What is motivation? Explain the process of motivation.
   (b) Discuss the Maslow's Hierarchy of Needs Theory of motivation.
   (c) Explain the expectation theory of motivation.
   (d) What is the relationship between Maslow's Hierarchy of Needs Theory and McClelland need theory of motivation?

স্কুল অব বিজনেস

Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1ˢᵗ Level)

Course Title: Management and Organization   **Submit by: May 08, 2020**

1. (a)   What is group? Explain the benefits of group.
    (b)   Why is it important for a manager to understand informal group?
    (c)   Describe the group roles.

2. (a)   What is decision making? Explain the decision making environments.
    (b)   How does decision making differ between individuals and group?
    (c)   How can we improve decision making.

3. (a)   What is communication? Explain the types of communication.
    (b)   Discuss the model of communication.
    (c)   Describe the barriers to communication.

4. Read the following passage and answer the questions that follow:

    Akram's dilemma

    Mr Akram couldn't understand the problem. After all, his metal working firm was complying with all existing pollution – control laws. And yet somehow he'd incurred the wrath of a local environmental protection group that wanted him to stop polluting a river that passed through the center of the town.

    Mr. Akram had informed the group that the pollution they referred to amounted to such an insignificant amount that any reasonable person, even a government agency, would consider it a tolerable social cost for the benefits of doing business. But the committee didn't see it t hat way.

    "Your obligations, "one member told him, "extend beyond the letter of the law".

    Another member indicated that government regulations simply served as guidelines. The goal of the environmental movement was to stop all pollution, minor as well as major. As one member put it, "You should remember that all major pollution probably began as what you call an insignificant insult to the environment". In the same vein, another member pointed out that while Akram's effluent discharge didn't amount to much in isolation, taken together with all other so-called tolerable amounts it was contributing to a serious water-pollution problem.

    In reply, Akram asked the group if they realized how much pollution-control equipment would cost. He would have to pay about Tk. 3, 70,000 for installation and over Tk. 50,000 annually for operating expense. "Such an expense", he pleaded, "won't make a dime's worth of difference in my product". Then he added, "But I can tell you one thing:

I'm going to have to charge more than a dime more if I do what you're asking".

The committee deplored this economic reality but said that if that was the only way to erase pollution, them so be it.

"Easy for you to say," Akram told them bitterly, "but I sell my product nationally. Do you have any idea of the competitive disadvantage you're imposing on me? Why, it wouldn't surprise me if, in addition to freezing salaries, your proposal causes a production tailspin that would force me to lay off worker". The Akram asked them sharply: "Are you sure people would rather have cleaner water than a steady job?"

The committee remained adamant in its demands. It told Akram that it would return in ten days to find out what Akram intended to do to curb pollution of the river. Should he do nothing, they were prepared to take him to court.

Questions:

(a) Do you think that the environmental committee is right in making this demand of Akram?
(b) If Akram complies with the committee's demands, what would be the fairest way to allocate control costs?

স্কুল অব বিজনেস

Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1ˢᵗ Level)

Course Title: Management and Organization   **Submit by: June 26, 2020**

1. (a)   What is organizational structure? How labour is divided and coordinated? Explain.
    (b)   What is leadership? Comment on "Leaders are born not made".
    (c)   Describe the current leadership issues.

2. (a)   How organizational environment is define? Explain the impact of globalizations and managers.
    (b)   What is power? Explain the various source of power.
    (c)   What is organizational culture? Discuss the various purposes of organizational culture.

3. Read the following passage and answer the questions that follow:

    What Do They Want?

    Pat Riverer is vice president of manufacturing and operations of a medium-size pharmaceutical firm in the Midwest. Pat has a Ph.D in chemistry but has not been directly involved in research and new-product development for twenty years. From the "school of hard knocks" when it comes to managing operations, Pat runs a "tight ship." The company does not have a turnover problem, but it is obvious to Pat and other key management personnel that the hourly people are putting in only their eight hours a day. They are not working anywhere near their full potential. Pat is very upset with the situation because, with rising costs, the only way that the company can continue to prosper is to increase the productivity of its hourly people.

    Pat called the human resources manager, Carmen Lopez, and laid it on the line: "What is it with our people, anyway? Your wage surveys show that we pay near the top in this region, our conditions are tremendous, and our fringes choke a horse. Yet these people still are not motivated. What in the world do they want? "Carmen replied:" I have told you and the president time after time that money, conditions, and benefits are not enough. Employees also need other things to motivate theme. Also, I have been conducting some random confidential interviews with some of our hourly people, and they tell me that they are very discouraged because, no matter how hard they work, they get the same pay and opportunities for advancement as their coworkers who are just scraping by. "Pat then replied: "Okay, you are the motivation expert; what do we do about it? We have to increase their performance".

    Questions:

    (a)   Explain the "motivation problem" in this organization in term of the content model of Maslow and Herzberg.
    (b)   Do you think this manager is internally or externally controlled? How?

school of business (Bengali)

Bangladesh Open University
CEMBA/CEMPA Program
Semester: 182

Course: Quantitative Techniques   Submit by: March 27, 2020

Instructions for Assignment Submission

1. Assignments must be submitted on A4 size paper in own hand writing.

2. Completed cover must be used on the top of each assignment (For specimen cover page, see **page-3** *of the Semester Calendar)*

3. Assignments must be submitted to the **coordinator** *of the study center you are attached with.*

4. Spiral binding must be avoided. Instead, transparent folder or file cover or any other soft binding may be used.

5. Contact e-mail address & Cell Phone and Land Phone numbers must be written on the cover page clearly. If your e-mail address is not yet added to our e-mail list, please send a mail to **zahirunimp14@gmail.com** *with subject "Add Me".*

6. In the case of delayed submission, the School will not acknowledge the submission of the assignment(s) and will not be responsible for any damage or loss of the assignment(s).

7. If it is noticed that your assignment is copied from another student's assignment, your assignment will be cancelled automatically.

1. Distinguish between:
   i) Algebraic functions and transcendental functions
   ii) Exponential functions and logarithmic functions
   iii) Linear functions and quadratic functions
   iv) Univariate functions and multivariate functions

2. Find the slope, X-intercept and Y-intercept of the following functions:
   i) $Y = 6X + 3$
   ii) $Y = 3X^2 - 9X + 6$
   iii) $Y = 2X + 10$
   iv) $Y = (10X + 6)/7$

3. Differentiate the following functions with respect to X and find which ones are increasing or decreasing at X=5:
   i) $Y = 5X^2 + 3X + 10$
   ii) $Y = 3^{(2X+5)}$
   iii) $Y = 5e^{lnX+2} +$
   iv) $Y = Log_a X^2$

4. Find $\dfrac{\partial Y}{\partial X_1}$ and $\dfrac{\partial Y}{\partial X_2}$ from the following functions:

   i) $Y = 10X_1 + 2X_1X_2$
   ii) $Y = e^{X_1} + 15X_1X_2$
   iii) $Y = 10X_1X_2 + 17X_2$
   iv) $Y = \log X_1X_2 + 11$
   v) $Y = \ln X_1{}^2 + 20$

5. What is a questionnaire? Discuss the important points to be considered while designing a questionnaire.

6. Distinguish between mean, median and mode. For what kind of data, median is the appropriate measure of central tendency? Suppose, you are the manager (marketing) at a showroom of motorcycles. Various brands of motorcycles are displayed and sold out at the showroom. If you are asked to put an import order for motorcycle that is most sellable, what measure of central tendency will you use to identify the item?

7. The data on the monthly spending of CORE 1602 students are given in the table below.

Monthly spending (Inclusive)	Number of students
0 - 5000	3
5000 - 10000	6
10000 - 15000	10
15000 - 20000	5
20000 - 25000	3
25000 - 30000	2

   i. Find the average spending of the students.
   ii. What is the monthly spending of top 10% students?

8. What is geometric mean? A machine was purchased for TK. 50000 in 1984. Depreciation on the diminishing balance was charged @ 35% in the first year, 30% in the second year and 15% per annum during the next three years. What is the average depreciation charged during the whole period?

স্কুল অব বিজনেস
Bangladesh Open University
CEMBA/CEMPA Program
Semester: 182

Course: Quantitative Techniques

Submit by: May 08, 2020

1. What is matrix? "All diagonal matrices are not scalar matrices" – do you agree? Give examples in favour of your answer. Find AB, Determinant of A and Determinant of B from the following matrices:

$$i.\ A = \begin{bmatrix} 4 & 2 & 0 \\ 2 & 3 & 2 \\ 0 & 1 & 6 \end{bmatrix} \quad ii.\ B = \begin{bmatrix} 6 & 3 & 4 \\ 1 & 0 & 1 \\ 2 & 2 & 3 \end{bmatrix}$$

2. What are the critical values that may be noticed in a non-linear function? Mention the necessary and sufficient conditions for identifying the critical values. Find the critical values of the following functions:
   a. $Y = 5X^3 + 3X^2 + 10X + 100$
   b. $Y = 10X^2 - 4X + 65$
   c. $R = 5Q^3 + 3Q^2 + 7Q + 15$

3. What are the measures of dispersion? If two distributions have the identical mean and identical variance, can the distributions be identical for sure?

4. If you plan to buy a car, which of the following brands you will choose that will be statistically meaningful? The data on the brands for last 11 years are given below:

Lifetime (Yrs) [Inclusive]	Toyota	Hyundai
1-4	3	1
4-7	10	4
7-10	30	24
10-13	28	40
13-16	13	15

5. What is regression analysis? How it differs from correlation analysis? Suppose, following are the summary of data on the CEMBA students' expenditure and income. Thirty students were interviewed and the following results were found:

   $\overline{Y} = 5000$, $\Sigma(Y-\overline{Y})^2 = 20000$, $\Sigma(Y-\overline{Y})(C-\overline{C}) = 8000$,

   $\overline{C} = 3000$, $\Sigma(C-\overline{C})^2 = 83200$

   Find –
   i) The consumption function C=a+bY that best fits the above data
   ii) If the income is 10000, what will be the consumption expenditure?

6. Define sampling. What are the advantages of sampling over census?

7. What is normal distribution? Discuss the properties of the normal distribution. Suppose, the duration of a particular project is normally distributed with a mean of 12 days and a standard deviation of 3. What is the probability that the project will be completed in 15 days?

8. What is estimation? Why do we go for estimation? The daily wages of 10 randomly sampled farm labourers are: 14, 17, 14.5, 22, 27, 16.5, 19.5, 21, 18 and 22.5. (i) What is the best estimate of the mean daily wages of the farm labourers? (ii) What is the standard error of the mean? (iii) What is the 95% confidence interval for the population mean?

শুল অব বিজনেস
Bangladesh Open University
CEMBA/CEMPA Program
Semester: 182

Course: Quantitative Techniques   **Submit by: June 26, 2020**

1. How measure of variation is helpful in statistical analysis? If we would like compare the income distributions of the people of Singapore and Bangladesh, which measure of variation will be appropriate and why?

2. The data on the age of CEMBA-182 students are given in the table below.

Age (Yrs) (Inclusive)	Number of students
20 – 25	3
25 – 30	5
30 – 35	10
35 – 40	4
40 – 45	3

   Find: (i) Standard deviation (ii) Coefficient of Variation

3. What are the absolute measures of skewness? If a series of data is distributed with the mean= 20, median=15 and Mode= 5, what is type of the distribution it is?

4. A distribution of the income of CEMBA students are characterised by the following values: Mean=20000, Median=30000, Mode=35000, Standard deviation= 1.2
   i)   Calculate the coefficient of skewness.
   ii)   What is the shape of the distribution?

স্কুল অব বিজনেস

Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1ˢᵗ Level)

Course: Marketing Management   **Submit by : March 27, 2020**

Instructions for Assignment Submission

1. *Answer all questions in your own handwriting on A4 size white paper.*
2. *Fill-in the cover page (see page#5 of Semester Calendar) of your assignment with care.*
3. *Submit the assignment to the study centre coordinator or his delegate and ensure his/her signature on your Assignment Acknowledgement Form (see page#6 of Semester Calendar).*
4. *Don't make spiral binding. Instead, make soft binding.*
5. *If your e-mail address is not yet added to our e-mail list, please send a mail stating your ID Number and level to comnwlthmba.bou@gmail.com with subject "Add Me".*
6. *In the case of delayed submission, the School will not acknowledge the submission of the assignment(s) and will not be responsible for any damage or loss of the assignment(s).*
7. *If it is noticed that your assignment is copied from another student's assignment, your assignment will automatically be cancelled.*

---

1. (a) What is meant by marketing management?

   (b) Distinguish among marketing concept and selling concept.

   (c) Imagine, you are a Brand Manager of XYZ Bank Bangladesh. You have to develop a marketing mix strategy for a "XYZ Credit Card" for Business People in Dhaka City. How would you define your market segment and design the "Seven P's" strategy for this product? Discuss.

2. (a) Discuss the social marketing planning process.

   (b) Explain the implication of service characteristics in designing a marketing strategy.

   (c) Elaborate the elements of marketing mix in service marketing.

3. (a) Explain the roles and strategies of marketing mix in different stages of product life cycle.

   (b) How does market segmentation differ from product differentiation? Discuss the number for segmentation and how a firm should select it segments.

   (c) What are the main basis for segmentation? Explain.

স্কুল অব বিজনেস
Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1st Level)

Course: Marketing Management   **Submit by: May 08, 2020**

1. (a) Define marketing research. Explain marketing research procedure.

   (b) Show the application of marketing research in sales and market analysis.

2. Suppose, you are a marketing Executive of XYZ company. The company wants to introduce Angel Furniture in Bangladeshi market. You have to develop a marketing plan for this new product. How would you develop this plan? Explain.

3. (a) "People do not buy a product rather they buy a bundle of benefits" – Explain the statement with examples.

   (b) What would be your pricing strategy? If you are (i) faced with an increased excise duty on you product. (ii) there is a fall in the prices of your major raw materials.

স্কুল অব বিজনেস
Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1ˢᵗ Level)

Course: Marketing Management

Submit by: June 26, 2020

1. (a) Discuss the different methods for setting promotional budget.
   (b) Explain "AIDA" model in setting advertising objectives.
   (c) Describe the DAGMAR approach for setting advertising objectives.

2. **Read the following passage and answer the questions that follow:**

   Hank Freeman was exclted. His new store, Hank's Furmlture Mart, was about to open. Hank had been in the furniture business for more than10 years, first as a delivery and setup man and then as an in-store salesperson. This was his big chance to launch out on his own. Using some money that he inherited, various loans, and the investment of a silent partner, the mid-price-range retail furniture store was ready for business.

   Hank's Furniture Mart was located outside the city limits meant customers would not have to pay city sales tax. The store was part of a large corner cluster. Hank's agreement with the other tenants was to stay out of the mattress and bedding business, because another retailer sold those items exclusively. For the same reason, he also agreed that he would not sell television sets or stereos. A "country-kitchen" chain restaurant was located across the parking lot from the retail stores. The entire shopping complex could be reached easily, because of its convenient location next to the interstate.

   Hank knew any furniture store faced a variety of competitors. On the high end, stores such Ethan Allen attracted the affluent customers. On the lower and were large warehouse style operations offering low prices and prompt delivery of lower-quality pleces. In the middle, several retail chains sold various furnishings. Specialty stores that focused solely on recliners were also close by.

   Two advantages gave Hank hope that is store would be a grand success. The first was his extensive knowledge of the retail furniture business. He knew how various stores competed, whether through price, quality, "deals," or any other tactic. His knowledge extended to the various manufacturers. Hank knew which ones gave the best deals, which ones delivered merchandise on time (or late), and the quality levels of the pleces each sold.

   The second advantage was Hank's extensive potential customer base. Hank had been working in the retail furniture marketplace for more than a decade. He believed he had a series of loyal buyers and that word-of-mouth would be a big help.

   At the same time, Hank knew he would have to advertise. He had set aside enough money to fund television spots and radio, newspaper, internet, and specialty ads, including direct mail. Hank had chosen a local agency to develop a consistent theme across all the store's ads. He suggested the tagline "Hank's Furniture Mar: our prices are right and our deals are real."

   Questions:

   (a) What type of message strategy should Hank's Furniture Mart feature?
   (b) What type of executional framework should Hank's ads utilize? Which type of appeal will the framework feature?
   (c) Who should be the spokesperson for the store, Hank or a paid professional actor?
   (d) Design a print ad for Hank's Furniture Mart.

স্কুল অব বিজনেস

Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1ˢᵗ Level)

Course Title: Accounting and Finance   Submit by: March 27, 2020

1. (a) "Accounting is the language of business." Explain with examples.
   (b) Distinguish between profit and gain with examples.
   (c) Why is matching concept important in accounting? Explain.

2. The following information has been collected from the books of accounts of Apex Limited for the year ended 31ˢᵗ December, 2018:

Purchase of Materials	Tk. 1,85,000
Productive Wages	1,26,000
Carriage Inward	7,150
Carriage Outward	4,300
Inventories (1January 2018):	
Raw Materials	62,800
Finished Goods	25,000
Travelling Expenses	2,100
Selling Expenses	2,500
Salaries	18,000
Repair of Machineries	4,500
Director's Fees	6,000
Electricity and Fuel	15,000
Gas & Water:	
Factory	1,500
Office	500
Advertising	1,750
Rent, Rates & Insurance (Factory $^3/_4{}^{th}$, Office $^1/_4{}^{th}$)	6,000
General Expenses	3,500
Bad Debts Written off	6,500
Depreciation of Plant & Machinery	7,500
Depreciation of Office Furniture	600
Manager's Salary (Factory $^3/_4{}^{th}$, Office $^1/_4{}^{th}$)	10,000
Cash Discounts Allowed	3,000
Sales	4,90,000
Inventories (31December 2018):	
Raw Materials	48,000
Finished Goods	30,000

Required:

Prepare an income statement showing the following information:

(a) Raw materials consumed;   (b) Prime cost;
(c) Manufacturing overheads;   (d) Administrative expenses;
(e) Selling expenses;   (f) Cost of goods sold; and
(g) Net Profit.

3.   The contribution format income statement of Anamika Ltd. for the year 2018 is given below:

	Total	Per Unit	Percentage of Sales
Sales (10,000 units)	Tk.500,000	Tk.50	100%
Variable expenses	300,000	30	?%
Contribution margin	200,000	Tk.20	?%
Fixed expenses	170,000		
Net operating income	Tk.30,000		

Management is anxious to increase the company's profit and has asked for an analysis of a number of items.

Required:

(a)   Compute the company's variable expense ratio and CM ratio.
(b)   Compute the company's break-even point in both unit and sales taka.
(c) Assume that sales increase by Tk.100,000 in 2019. If cost behavior patterns remain unchanged, by how much will the company's net operating income increase? Show the data by preparing new contribution format income statement on a total, per unit and percentage basis.
(d) Refer to the original data. Compute the company's margin of safety in both taka and percentage form.

4.   Padma Company produces and sells a single product. Selected cost and other data for a recent year are given below:

Beginning inventory units	0
Units produced during the year	10,000
Units sold during the year	8,000
Ending inventory in units	2,000
Selling price per unit	TK.50
Selling and administrative costs:	
Variable per unit	TK. 5
Fixed per year	TK.70,000
Manufacturing costs:	
Variable per unit :	
Direct materials	TK.11
Direct labor	TK. 6
Variable overhead	TK. 3
Fixed per year	TK.1,00,000

Required:

(a) Assume that the company uses absorption costing:
    (i) Computer the manufacturing cost of one unit of product.
    (ii) Prepare an income statement for the year.
(b) Assume that the company used marginal costing:
    (i) Computer the manufacturing cost of one unit of product.
    (ii) Prepare an income statement for the year.
(c) Reconcile the marginal costing and absorption costing net income figures.

CORE 1604   স্কুল অব বিজনেস   Assignment # 2

Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1ˢᵗ Level)
Course Title: Accounting and Finance   Submit by: May 08, 2020

1. SA Paribahan operates a fleet of delivery trucks in Chattogram metropolitan area. A careful study by the company's cost analyst has determined that if a truck is driven 120,000 kilometers during a year, the average operating cost is Tk. 11.6 per kilometer. If a truck is driven only 80,000 kilometers during a year, the average operating cost increases to Tk.13.6 per kilometer.

   Required:

   (a) Using the high-low method, estimate the variable and fixed cost elements of the annual cost of truck operation.
   (b) Express the variable and fixed costs in the form $Y = a + bX$.
   (c) If a truck were driven 100,000 kilometers during a year, what total cost would you expect to be incurred?

2. The income and expenditure forecasts for the month of March to August 2019 are summarized below:

Month	Sales	Purchase	Wages	Overhead
March	TK.60,000	TK.36,000	TK.9,000	TK.10,000
April	62,000	38,000	8,000	9,000
May	64,000	33,000	10,000	11,500
June	58,000	35,000	8,500	9,000
July	56,000	39,000	9,500	9,500
August	60,000	34,000	8,000	8,500

   Required:

   Prepare a cash budget for 3 months starting on 1 May 2019 keeping in view the following information:

   (i) Cash balance as on 1May 2019 TK.8,000.
   (ii) Sales and purchases all are on credit.
   (iii) Plant costing TK. 16,000 due for delivery in July payable 10% on delivery and the balance after 3 months.
   (iv) Advance Tax installments of TK.8,000 each are payable in March and June.
   (v) The period of credit allowed by suppliers is 2 months and allowed to customers is 1 month.
   (vi) Lag in payment of all expense is one months.

3. The present capital structure of Tania Ltd. is as follows:

Common Stock	Tk. 2,00,00,000
12% Debt Capital	1,00,00,000
Total Capital	3,00,00,000

   The company is planning to expand its capacity that will require additional capital of Tk. 1,00,00,000.There are four alternative methods of financing:

   (A) Issuing 12% Debentures.
   (B) Issuing 13% Preferred Stock.
   (C) Issuing Common Stock @Tk. 100 per share.
   (D) 50% by issuing 12% Debenture and 50% by issuing Common Stock @Tk. 100 per share.

The expected earnings before interest and taxes (EBIT) is Tk. 100,00,000 and corporate tax is 40%.

Required:

Calculate EPS under different methods of financing. Which one would you prefer?

স্কুল অব বিজনেস

Bangladesh Open University
Commonwealth Executive MBA/MPA Programme
Semester: 182 (1ˢᵗ Level)

Course Title: Accounting and Finance   **Submit by: Submit by: June 26, 2020**

1. A company has opted standard costing, furnishes you the following information:
    Standard:
Material for 700 units of finished products	1,000 kgs.
Price of materials	Tk. 1 per kg

    Actual:
Output	210,000 units
Opening stock	Nil
Purchases	300,000 kg for Tk. 270,000
Closing stock	20,000 kgs

    Required:
    Calculate (a) Direct Material Usage Variance, (b) Direct Material Price Variance, and (d) Direct Material Cost Variance

2. *(a)* Explain the decisions made by the financial manger of a firm.
    (b) Star company is thinking to purchase one of the following two machines. Detail information for both the machines are given below:

		Machine A	Machine B
Purchases Price		Tk.50,000	Tk.75,000
Freight, Insurance Carriage etc.		10,000	15,000
Import Duty		25,000	30,000
Installation charges		15,000	20,000
Working capital requirement		25,000	---
Salvage value		20,000	----
Annual cash inflows	Year		
	1	40,000	45,000
	2	35,000	45,000
	3	30,000	45,000
	4	25,000	45,000
	5	20,000	45,000

    The company charges depreciation of straight line basis and pays tax @50%. Cost of capital for the company is 9%.

    Required: Calculate
    (i) Payback period (P.B.P)
    (ii) Average rate of return (A.R.R)
    (iii) Net present value (N.P.V)
    (iv) Profitability index (P.I)
    (v) Internal rate of return (I.R.R)

3. *(a)* What factors a financial manager would ordinarily take into consideration while estimating working capital needs of his firm? Explain.

(b) A company wishes to determine the optimal capital structure from the following information. Determine the optimal capital structure from the viewpoint of minimizing the cost of capital.

Financing Plan	Debt Amount	Equity Amount	After tax Cost of Debt (k_i%)	Cost of Equity (k_e%)
A	Tk. 8,00,000	Tk. 2,00,000	14	20
B	600,000	4,00,000	13	18
C	500,000	5,00,000	12	16
D	200,000	8,00,000	11	18