

MBA 3rd Semester Examinations, Dec. 2020 (CBCS) (DDE)

[Session: July 2019 – June 2021]

Subject: Integrated Marketing Communication

Paper: MBAE-3512

Time-3 Hours

Full Marks: 80

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable*

Group-A

Answer any six questions

5×6=30

1. What is Learn-Feel-Do Model of Marketing communications?
2. Define Media Reach, Frequency and Gross rating points (GRP).
3. Distinguish between Climax and Anticlimax presentations in advertising.
4. Define Sponsorship and mention its role in Integrated Marketing Communications.
5. What are Public Relations? State Myths about it.
6. State different components of Integrated Marketing Communications.
7. Define a. exhibition and b. corporate image.
8. What are 5Ms of advertising?

Group-B

Answer any five questions

10×5=50

9. Explain Elaboration Likelihood Model of advertising communication.
10. Explain different types of advertising appeals with examples.
11. Reasons for growth of Integrated Marketing Communications are many. Discuss.
12. Explain the merits and demerits of advertising in newspaper.
13. Describe the role and responsibility of a PR manager in a marketing firm.
14. Explain different types of sponsorship programs in India.
15. What are press release and press conference? Discuss in brief.

Please Turn Over

MBA 3rd Semester Examinations, Dec. 2020 (CBCS) (DDE)**[Session: July 2019 – June 2021]****Subject: Business Valuation****Paper: MBAE-3612****Time-3 Hours****Full Marks: 80***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words
as far as practicable***Group-A****Answer any six questions****5×6=30**

1. What do you mean by Valuation? How the concept of value is different from cost & price?
2. What do you mean by Financial Instruments? Which Financial Instruments (spot as well as derivative market) are usually valued in Business Valuation?
3. What are the different methods of valuation of interest rate swap at point Zero and Point “t”? How the methods are different?
4. What is Yield to Maturity (YTM)? How it is computed? How is it different from coupon rate? What are its implications in Business Valuation?
5. Nifty is currently valued at Rs.2000. The market lot is 100. Bank Interest is 11%. The initial margin is 10% of the exposure. 6 months Nifty is quoted at Rs. 2103. What should be your current strategy?
6. Which key variables are considered in bond valuation? Identify 4 essential conditions observed in those 4 key variables?
7. You are expected to receive Rs. 2,000 towards interest on bond every yr. Already you have received for 3 yrs interest. Maturity value of Bond is 1, 00,000. YTM is 12%. Compute value of the bond.
8. You plan to go for a trip to London after 5 years hence. Estimated cost in INR is Rs. 3,00,000. Compound rate of interest (discrete) is 8%. How much you are required to save each year in recurring deposit account?

Group-B**Answer any five questions****10×5=50**

9. Principle amount is Rs. 100. Assume that 2 yrs ago, A entered a 5 –years interest rate swap, it received fixed 8% and paid MIBOR +1%. For simplicity of exposition, we assume annual payments. There are 3 remaining annual remaining annual payments. Assume that the payment of floating rate determined one period in advance is at the rate of 9.5% (MIBOR was 8.5% then). The term structure rate of interests on today is:

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1 year	10.0 %
2 year	10.5 %
3 year	11.0 %

Compute value of IRS under (i) POB method and (ii) SFC methods and draw inference from your result.

10. YTM on a given bond is 12 %. The bond has a per value of Rs. 1,000. And annual interest payments of Rs. 120, indicating a 12 % coupon. The bond has a per value of Rs. 1,000 and annual interest payments of Rs. 120, indicating a 12% coupon interest rate.

Assuming a 5 years maturity period, compute the value of bond. Recomputed the value assuming (i) YTM @15% & (ii) YTM @9%; coupon being the same. Draw inference from your result.

11. D Ltd has entered the phase of maturity in its life cycle and its cash flows (before interest & taxes) are expected to remain constant at the current level of Rs. 550.25 lakh. Presently it is all equity financed firm.

The cost of equity for D Ltd, which resembles D Ltd in terms of its risk –return characteristics, is 15.75%. You are expected to find out the value of D Ltd. Corporate tax rate is 38.5%. What will be the impact on firm's cost of equity, WACC and its valuation, if the firm decides to alter its capital structure to have 25% debt ratio? The cost of debt for firms with the risk profile similar to D Ltd is 10.25%.

12. Compute EVA of S Ltd. From the financials given below:

Particulars	Rs. In crores
Total assets	500.00
Debt-equity ratio	0.25
Beta	1.19
Sales	1,050
Cost of goods sold	288.75
Gross profit	761.25
Administrative, selling & distribution overheads	325.00
Profit before interest & Tax	436.25
Interest & 12@	12.00
Profit before Tax(PBT)	424.25
Tax @ 38.5%	163.34
Profit after Tax(PAT)	260.91

The firm finances the asset base with 20% debt. The risk –free rate for the second period can be taken as 5.75% while the risk premium has been estimated as 10.35%. The beta for the firm is 1.19.

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13. X Ltd is planning to procure a server for IT applications costing Rs. 45 lakhs. Due to fast changing developments in the field of information technology and to avoid the risk of obsolescence, the firm is considering leasing the server for a period of 3 years at a rental of Rs. 18 lakhs per annum payable in arrears. There is no salvage after 3 years. Alternatively, the firm can buy the server by borrowing at 12%.

The firm pays tax @ 40%. The depreciation rate that can be claimed by the firm is 33.33%.

- (a) Find whether it is beneficial for X Ltd to lease the server or buy it.
 (b) If the salvage value is reckoned to be Rs. 3 lakhs at the end of 3 years, does your decision change?
14. Management of A Ltd is under pressure to boost its sagging earnings. The firm has been advised by its consultants to follow the route of inorganic growth as an immediate solution to its problem. In the medium term as the market picks up the earning position is likely to improve on its own. The current profit after tax (PAT) for A Ltd is Rs 125 lakh and the EPS is Rs. 3.125. Current market value per share for A Ltd stand at Rs. 57.25.

A Ltd has identified S Ltd as the suitable target firm. The current PAT of S Ltd is Rs. 75 lakhs. Its EPS is Rs. 7.5 and the market price of its share is Rs. 87.5.

If A Ltd wants its EPS to go up to the level of 5.75, what exchange ratio should it offer to the shareholders of S Ltd.?

15. K Ltd provides following data for 2 different phases; High growth & Stable growth.

Particulars	High growth	Stable growth
Length of high growth phase(Yrs)	4.00	
Earnings per share at (y=0)	5.00	
Dividend per share (t=0)	1.50	
Dividend payout ratio	30%	70%
Growth rate	20%	06%
Beta	1.40	1.10
Risk-free rate	6.50%	6.50%
Risk premium	7%	7%

Required:

- (i) Cost of equity of K Ltd for (i) High growth phase and (ii) Stable growth phase.
 (ii) Value of Equity for the of the firm as on today.
 (iii) Value of equity at the end of high growth period.

MBA (3rd Semester) Examination, Dec. 2020 (CBCS) (DDE)**[Session: July 2019 – June 2021]****Subject: Performance Management and Employee Development****Paper: MBA-3712****Time-3 Hours****Full Marks: 80**

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable

Group-A**Answer any six questions****5×6=30**

1. Distinguish between performance management and performance appraisal.
2. Discuss the characteristics of a good objective.
3. Briefly discuss the learning opportunities provided by performance management?
4. Explain 'performance related pay' and 'competency related pay'.
5. Provide a brief write-up on potential appraisal.
6. Explain why attitude is called as the prime driver of competency.
7. Explain the rationale for 360-Degree Feedback.
8. What do you understand by 'job graph' and 'person graph'?

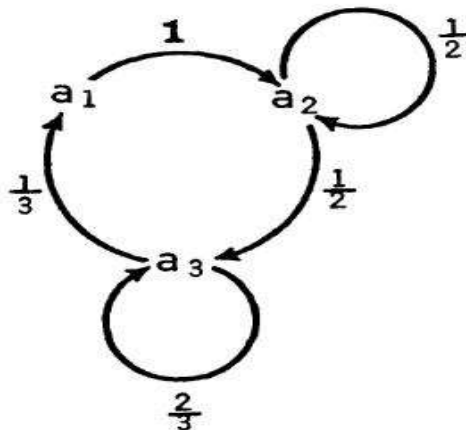
Group-B**Answer any five questions****10×5=50**

9. State and explain the 'performance management cycle' with the help of a diagram.
10. Provide an overview of different rating methods under performance management.
11. State and explain the Philips Model of potential appraisal with the help of a diagram.
12. "Apart from financial motivation in the form of reward, non-financial motivation is also provided by performance management". Critically examine the statement.
13. State and discuss the administrative objectives of performance appraisal.
14. Discuss the Onion Ring Model of competency.
15. "For efficient management of human resources, competencies of employees must be measured"
– Discuss.

Please Turn Over

MBA 3rd Semester Examinations, Dec. 2020 (CBCS) (DDE)**[Session: July 2019 – June 2021]****Subject: Applied Operations Research****Paper: MBAE 3812****Time-3 Hours****Full Marks: 80***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words
as far as practicable***Group-A****Answer any six questions****5×6=30**

1. State the theoretical implication of degeneracy.
2. Define unbounded and infeasible solution.
3. What is time value of money? If the discount rate for money per year is 10%, then calculate the present worth of money for the next 6 years.
4. What is stage coach problem? Give a brief example.
5. Compare between these two methods – Big-M method and Two-Phase method.
6. Define the following – a) Basic solution; b) Feasible solution; c) Basic feasible solution; d) optimal solution.
7. List out different types of queuing models using Kendal's notation. Differentiate between Balking and Reneging.
8. Find for a Markov chain with transition probabilities as indicated in the following figure, the probability of being at various possible states after three steps, assuming that the process starts at state a_1 . You need to find out only a_{11} , a_{12} and a_{13} .

**Please Turn Over**

Group-B**Answer any five questions****10×5=50**

9. Solve the following Linear Programming Problem.

$$\text{Maximize } Z = 4x_1 + x_2 + 3x_3 + 5x_4$$

Subject to the constraints:

$$4x_1 - 6x_2 - 5x_3 -$$

$$4x_4 \leq -20 \quad 3x_1 -$$

$$2x_2 + 4x_3 + x_4 \leq 10$$

$$8x_1 - 3x_2 + 3x_3$$

$$+ 2x_4 \leq 20 \quad x_1,$$

$$x_2, x_3, x_4 \geq 0$$

10. Prove that the following problem has unbounded solution.

$$\text{Maximize } Z = 3x_1 + 2x_2 + x_3$$

Subject to the constraints:

$$-3x_1 + 2x_2 + 2x_3 = 8$$

$$-3x_1 + 4x_2 + x_3 = 7$$

$$x_1, x_2, x_3 \geq 0$$

11. The cost of a machine is Rs. 6100 and its scrap value is Rs. 100. The maintenance costs found from experience are as follows. When should the machine be replaced?

Year	Maintenance cost (Rs.)
1	100
2	250
3	400
4	600
5	900
6	1200
7	1600
8	2000

12. Solve the following Dynamic Programming Problem.

$$\text{Minimize } Z = p_1 \log p_1 + p_2 \log p_2 + \dots + p_n \log p_n$$

Subject to the constraints:

$$p_1 + p_2 + \dots + p_n = 1$$

$$p_j \geq 0$$

$$j = 1, 2, \dots, n$$

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13. Based on the following problem and tableau of the first phase of two-phase method, complete the second phase of the method.

$$\text{Maximize } Z = 12x_1 + 15x_2 + 9x_3$$

Subject to the constraints:

$$8x_1 + 16x_2 + 12x_3 \leq 250$$

$$4x_1 + 8x_2 + 10x_3 \geq 80$$

$$7x_1 + 9x_2 + 8x_3 = 105$$

$$x_1, x_2, x_3 \geq 0$$

		C_j	0	0	0	0	0	
C_B	B	x_B	x_1	x_2	x_3	x_4	x_5	B/x_j^*
0	2270/19	x_4	0	80/19	0	1	10/19	
0	70/19	x_3	0	10/19	1	0	-7/38	
0	205/19	x_1	1	13/9	0	0	4/19	
$z_j - c_j$			0	0	0	0	0	

14. Derive the expression for the expected number of entities in a queuing system for $M/M/1: \infty/\infty$ model.
15. A fire extinguisher service company works under contract to service all fire extinguishers in large factories and office buildings. Each extinguisher has a required pressure level that must be maintained for proper operation. The service company sends its men periodically to each customer to inspect and recharge all extinguishers in the building. The service company has a pricing problem: For each new potential customer, it must propose a contract that will specify both the inspection period and service charge, given the type of extinguishers and the number present. The pricing decision is based upon the estimates that the worth to the customer is \$0.20 per day for every extinguisher that is up to required pressure, but it is equivalent to a \$0.80 loss per day for every extinguisher below required pressure. The pressure loss process is a Markov process. Each extinguisher is either above (State A) or below (State B) its required pressure. An extinguisher which is in state A at the start of the week has probability 0.05 of falling below pressure during 1 week. Once it drops below pressure, it will remain below. All extinguishers are in state A at the completion of one periodic inspection. Consider a large office building having 100 extinguishers. The total charge for one inspection and service would be \$100. What inspection period in weeks would maximize the net worth to the customer?