FIRST SEMESTER   MBA

END TERM EXAMINATION   Nov/Dec- 2022

COURSE CODE: MBA103

COURSE TITLE: MANAGERIAL ECONOMICS

Time: 3:00 Hours   *Max. Marks: 50*

> **Note:** All questions carry equal marks.
> Answer **five questions. Question 1 is compulsory.**
> Assume suitable missing data, if any.

Q1. State whether the following statements are True/False. Each statement is of one mark.

1. Gasoline and Personal Computers are examples of homogeneous product. [CO 2]

2. Firms can influence price in a perfectly competitive market. [CO 4]

3. Markets may be highly (but not perfectly) competitive even if there are a few sellers. [CO 4]

4. Marginal revenue, graphically, is the slope of the total revenue curve at a given point. [CO 2]

5. Consumer surplus measures the benefit that consumers receive from a good or service beyond what they pay. [CO 5]

6. Producer surplus is measured as the entire area under the supply curve. [CO 4]

7. Deadweight loss refers to losses in consumer surplus associated with excess government regulations. [CO 4]

8. Externalities are not reflected in market prices, so they can be a source of economic inefficiency. [CO 5]

9. A market with few entry barriers and with many firms that sell differentiated products is purely competitive. [CO 4]

10. The market structure in which strategic considerations are most important is monopoly. [CO 4]

Q2. Attempt following questions:

(a) Discuss the central problems of an economy.   [5] [CO 1]

(b) Keeping in mind the global automobile industry, distinguish between the macroeconomic and microeconomic factors in this industry.
[5] [CO 1]

Q3. Attempt following questions:

(a) Explain the relationship between Price, elasticity and MR. Using the relation between price, elasticity and MR, calculate price that should be charged by a profit maximizing monopolist when price elasticity of demand = (-) 2 and MC = Rs. 10/unit.   [5] [CO 2]

(b) Calculate cross price elasticity of demand between

   (i) Inkpen and ballpen
   (ii) Inkpen and ink

Good	Before		After	
	Price Rs/Unit)	Quantity (unit/month)	Price Rs/Unit)	Quantity (unit/month)
Inkpen (Y)	5	15	2	20
Ballpen (X)	1	10	1	8
Inkpen (Z)	4	10	5	9
Ink (X)	5	15	5	10

Comment on the nature of goods.   [5] [CO 2]

Q4. Attempt the following:

(a) How can Economics of Scale reduce cost? Explain with diagram. Differentiate between Economies and Diseconomies of Scale using examples.
[5] [CO 3]

(b) Explain the relationship between total cost curves and average cost curves using diagrams.
[5] [CO 3]

Q5. Considering the following situation answer the questions that follow:

Reliance Jio's disruptive pricing since its entry more than two years ago forced the older carriers to match rates to hold on to customers. Fringe players that couldn't withstand the brutal price wars exited and the industry consolidated down to three large private players–Vodafone Idea and Bharti Airtel among the older ones. Vodafone idea, Bharti Airtel and Reliance Jio accounts for over 90% of the revenue market share. Yet, the industry is suffering with losses of more than ₹40000crore.

Recently, Reliance Jio Infocomm Ltd has raised basic monthly tariff plans. However, the rival operators have still not increased their tariffs!

(a) Which market structure is represented by Telecom sector in India? Name one most striking feature of this market structure highlighted in above case. Explain three other most prominent features of this market structure.   [5] [CO 4]

(b) What strategic choices are available to Vodafone and Airtel, on one hand; and Reliance Jio, on the other hand to decide whether they should compete or informally collude among themselves? Explain with the help of Game Theory.   [5] [CO 4]

Q6. Attempt the following questions:

(a) Using an example of a steel manufacturing firm polluting the river explain the meaning of externalities. When do externalities require government intervention? [5] [CO 5]

(b) Public goods are both nonrival and nonexclusive. Explain each of these terms and show clearly how they differ from each other (using example).   [5] [CO 5]

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Total no. of Pages:

First Semester MBA

End-term Examination

Course Code: 105-MBA

Course Title: Financial &Cost Accounting

Time 03:00Hours

Roll no..............

November 2022

Max. Marks: 50

Note: Assume suitable missing data, if any.
All questions carry equal marks.
Attempt Any Five questions:

Q1. What is accounting? And explain the following concepts:

- Accrual concept
- Matching concept
- Prudence concept

(10 marks, CO2)

Q2. What is Cost accounting? Define the elements of cost.

(10 marks, CO4)

Q3. Calculate the Cost of production using the following data:

(10 marks, CO5)

Particulars	Amount (Rs.)
Raw material consumed	40,000
Direct labour	16,000
Factory labour	5,000
Factory supervision charges	2,000
Factory rent and lightning	4,400
Oil for machinery	2,00
Depreciation	1,000
Office overheads	8,000
Office salary	4,000
Mis. Office expenses	2,000
Selling and distribution expenses	12,000

20% profit is charged on Cost of goods sold and 1,000 units have been produced during the period.

Q4. Calculate the value of closing inventory for the following data using FIFO.

(10 marks, CO4)

Date	Purchases	Issue
02/04/2021	200 Units @ Rs. 10	
04/04/2021	300 Units @ Rs. 12	
05/04/2021		400 Units
08/04/2021	350 Units @ 13	
09/04/2021		300 Units
10/04/2021	150 Units @ 15	
12/04/2021	250 Units @ 17	
13/04/2021		200 Units

Q5. From the following data calculate

a) liquidity Ratio

(5 marks, CO3)

Particulars	Amount (Rs.)
Current liabilities	50,000
Outstanding wages	2,000
Current assets	1,00,000
Inventories	20,000
Advance taxes	5,000
Prepaid expenses	5,000

b) Calculate Debt equity ratio, Total asset-to-debt ratio, and proprietary ratio.

(5 marks, CO3)

Particulars	Amount (Rs.)
Share Capital	4,00,000
Reserve and Surplus	1,00,000
Long-term borrowings	1,50,000
Current liabilities	50,000
Fixed Assets	4,00,000
Non-current Investment	1,00,000
Current Assets	2,00,000

Q6.a) Classify the following items into operating, investing, and financing activities. Justify your answer with explanation.

- Issue of Bonds
- Purchase of Assets
- Purchase of Shares
- Payment of Dividend
- Interest received

(5 marks, CO3)

b) On 1st Jan 2022, the assets account of X Ltd. showed a balance of Rs. 10,00,000. Out of this, machinery purchased on 1st July 2020 was sold for Rs. 60,000 it had a cost of Rs. 2,00,000. On 1st July 2021 another machine worth Rs. 3,50,000 was purchased. Depreciation is charged on the Written down value method @ 10% per annum. Prepare asset account in the books of X limited as on 31ST March 2022.

(5 marks, CO3)

Plants	Distribution Centres		
	DC_1	DC_2	DC_3
P_1	5	11	6
P_2	1	0	6
P_3	5	8	15

Prepare Transportation Table. Find an initial basic feasible solution using any method. **5 Marks**

[ii] A manager has to complete 4 projects (P1,P2,P3,P4). He is having 4 teams of employees (T1, T2, T3, T4). Each of these teams is capable of completing any of these 4 projects. However, the project costs (in Million INR) involved are different for different teams as shown below. Each team can be assigned to only one project and each project can be assigned to only one team. How should the teams be assigned to different projects so that the overall cost of completing 4 projects is minimized. Solve using Hungarian Method. **5 Marks**

	Projects			
	P1	P2	P3	P4
T1	9	8	10	10
T2	6	3	8	9
T3	7	2	5	10
T4	3	6	3	7

Q7. Write short notes on any two:
5X2 =10 Marks
   a) Types of errors in the context of statistical hypothesis testing.
   b) Advantages of sampling over population census
   c) Confidence Interval based estimation
   d) Important statistics to be maintained by an organization for analyzing performance of its employees

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END SEMESTER EXAMINATION *NOV-2022*
MBA-111 DECISION SCIENCES

Time: 3:00 Hours   *Max. Marks: 50*

> Note: Question 1 is compulsory. Do any 4 out of remaining 6 Questions. Use of calculators is allowed. Assume suitable missing data, if any.

Q1. You are required to write True/False or solve or fill in the blanks. Each of parts i to x is of 1 mark. **10 Marks**
   i. It is known that the mean of random variable following Poisson Distribution is 3. What is the variance of this random variable?
   ii. If $P(A \cup B) = 0.6$, $P(A) = 0.4$, $P(B) = 0.5$, find $P(A \mid B)$.
   iii. The Karl Pearson correlation coefficient lies between --- and --.
   iv. A random variable which follows Chi Square distribution can take values in the range --------
   v. If X is normally distributed with mean 15 and standard deviation 5, find the value k such that $P(X < k) = 0.5$
   vi. There may be many feasible solutions for a Linear Programming Problem. (True/False)
   vii. In an LP problem which can be solved using graphical method, more than one corner points can be optimal solutions. (True/False)
   viii. A feasible solution to an LP problem need not satisfy all of the problem's constraints (True/False)
   ix. ANOVA test is applied when there are more than two populations to be compared (TRUE/FALSE)
   x. The means of three independent normal random variables X_1, X_2 and X_3 are respectively 10, -15 and 8. Find the Mean of $Y = X_1 + X_2 + X_3 + 5$

Q2 [i]. A survey 1000 persons was conducted to evaluate effectiveness of a new Covid vaccine that has been administered to people in a small village. Some people appeared for two shots, some for one and some for none. Do the following data provide sufficient evidence to indicate that

the vaccine was successful in reducing the number of Covid cases in the village.

	No vaccine	One shot	Two shots	Total
Covid	24	9	13	46
No Covid	289	100	565	954
Total	313	109	578	1000

Formulate null and alternate hypothesis. Is there any evidence of a significant relationship between vaccination and occurrence of covid. Use $\alpha = 0.05$ [Given: Tabulated value of Chi Square with 3 degrees of freedom is 7.81 and with 2 degrees of freedom is 5.99]   **6 Marks**

[ii]. Two types of cars (say A and B) manufactured in India are tested for petrol mileage. A sample consisting of 36 cars of type A averaged 14 km per litre. Another sample consisting of 72 cars of type B averaged 12.5 km per litre. Assuming normal populations with respect to mileage and given that population variances are 1.5 and 2.0, test whether there exist a significant difference in the petrol consumption of these two types of cars. Use $\alpha = 0.01$. [Given P $(z < 2.58 = 0.995)$ and P(z < 2.33 = 0.99)]   **4 Marks**

Q3. It is required to compare the cholesterol contents of the four competing diet foods (A, B, C and D). For this, three 6 ounce packages of each of the four diet foods are analyzed for cholesterol contents. The cholesterol data (in milligrams per package) is presented below. Formulate suitable Null and Alternate hypotheses and apply ANOVA to test at 5% level of significance whether there is significant difference in cholesterol contents with respect to the four diets.

Diet Food			
A	B	C	D
3.6	3.1	3.2	3.5
4.1	3.2	3.5	3.8
4.0	3.9	3.5	3.8

Assume the populations are normal. Prepare ANOVA Table. [Given: Tabulated F (.05, 2,9) = 4.26; Tabulated F (.05, 3,8) = 4.06] **10 Marks**

Q4 [i] A mobile phone seller wants to determine policy for managing inventory of a popular smart phone. For this, he wants to simulate demand for next few days. Past data of daily demand of this mobile phone, with frequency, is given below:

Demand/Day:	0	1	2	3	4	5
Frequency (Days):	20	30	25	50	45	30

Using the following sequence of random numbers, generate the demand for next 10 days. Also, find the expected daily demand.   **5 Marks**
6, 63, 57, 2, 94, 52, 69, 33, 32, 30

[ii] Solve the following LPP using graphical method (Draw sketch)

Maximize Z= 40 X + 30 Y Subject to
2 X + Y <= 16
X + Y   <= 10
X >= 0, Y >= 0   **5 Marks**

Q5. The following table shows distance from home to University and Performance scores of 5 MBA students. Fit an appropriate simple linear regression and estimate the performance score of student whose residence is 20 Km away from the University. Present the steps and calculations involved.   **10 Marks**

Student	1	2	3	4	5
Distance (KM)	2	1	5	10	20
Performance	85	95	70	40	20

Q6 [i]. Production capacities of 3 manufacturing plants of a firm are as follows:
Plant 1 (P₁): 55000 ; Plant 2 (P₂): 40000; and Plant 3 (P₃): 25000. Each day, the firm must fulfill the needs of its three distribution centres (DC). Demands at the distribution centres are:
DC_1 : 65000; DC_2 : 45000; DC_3: 10000;. Cost data in unit of thousands indicating per unit transportation cost from each supply centre to each distribution centre is given in the following table:

Total no. of pages: 4

Roll no..............

THIRD SEMESTER
M.B.A.

END TERM EXAMINATION   Nov./Dec.-2022
MBA201: STRATEGIC MANAGEMENT

Time: 3:00 hours   Max Marks: 50

Note: All questions are compulsory
   All questions carry equal marks

Q.1 (a) Assume that you are in-charge of developing the strategy for a multinational company selling the products in some 30 different countries around the world. Explain which global/ international strategy would make sense in case of the following products and why?,
   i.   Footwears   ii.   Movies   [5] [CO5]

Q.1 (b) Identify with reasons, the type of corporate level strategy followed in the following cases:
i.   Heidelberg Cement announced that its US subsidiary has entered into an agreement with a US subsidiary of Cemex to buy Cemex's northwest materials business consisting of aggregate, asphalt and ready mix concrete operations in Washington.
ii. A leading FMCG company has decided to reduce its investment in a particular product to extract maximum profit from its sales.
iii. An old company had been facing financial issues for many years and is willing to give up its independence in exchange for security.
iv. Nykaa, a beauty products e-commerce company, has started offering products across categories of shaving, hair care, grooming kits, and sports nutrition exclusively for men under Nykaa Man.
v.   Ola, one of India's largest ride-hailing operation, purchased TaxiForSure for $200 million as a smaller, but value-centric, cash and equity deal. Ola's footprint in the country has been extended by adding TaxiForSure's 15,000+ fleet onto its network across 47 cities.   [5] [CO3]

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sectors worldwide, and charges for assistance and access to its collection. Inquiries relates to access to the plant collection for gardening work, seeds for proliferation or samples for chemical analysis to develop new drugs. It also get an annual grant in aid from central government, which is revised once every five years. The grant is due for review in 2 years. The head of the finance department wants to intensify the case for the upcoming meet with the government officials to enhance the aid, the management has been asked to present a balanced scorecard showing the performance of the park. You have been asked to help him in the same. Other people of the group are unfamiliar with the concept of a balanced scorecard. Develop a balanced score card for the Botanical park using appropriate measures.   [5] [CO2]

Q.5.(a) Is it possible for a company to have a sustainable competitive advantage when its industry becomes hypercompetitive? Explain with the help of examples. What are the various strategies a company can adopt in Hyper-competitive industry?   [5] [CO6]

Q.5.(b) Stihl is the world's leading manufacturer and marketer of chain saws with annual sales exceeding $2 billion. With innovations, the company holds over 1,000 patents related to chain saws and outdoor power tools. The company's products are sold at price points well above competing brands and are sold only by its network of 8,000 independent dealers. How would you characterize Stihl's business level competitive strategy? Explain your answer by giving advantages.   [5] [CO4]
OR
"Good strategy execution requires a team effort. All managers have strategy executing responsibility in their areas of authority and all employees are active participants in the strategy execution process." In the light of the above, discuss in brief, various measures which management should take to execute strategy effectively. [5] [CO4,CO6]

_____ END _____

Q.2 (a) Assume you are in mobile phone industry in India. On the basis of CAGE framework, rank the following countries in which you should expand out of Malaysia, Australia, Bazil, and China. Explain with suitable reasons. [5] [CO1]

OR

Given below are few trends emerging in different sectors of macro environment in India. Describe their strategic implications (in terms of opportunities/ threats) for the stated businesses:
  i. Rising interest rates- for banks and financial companies.
  ii. Growing internet connections in India- for financial services.
  iii. Increasing environmental concerns- for plastic industry.
  iv. Scrapping CVD (Countervailing Duties) exemptions- for manufacturing sector in India.
  v. Depreciating exchange rates- for Jewelry industry. [5] [CO1]

Q.2 (b) Why do pioneering companies often unable to create a business model that allows them to be successful over time and remain the market leaders? Explain how the pioneering companies can cross the chasm with the help of an example. [5] [CO2]

Q.3(a) Explain the international entry modes adopted in the following cases:
  i. American Locomotive company sold locomotives and diesel engines in Australia and got paid in cash, which according to the agreement with Australia, they were spent for purchase of Australian cutting tools from the same company.
  ii. McDonnell Douglas agreed to a deal with Thailand for eight top of the range F /A – 18 strike aircraft. Thailand agreed to pay $578 million of the total cost in cash, and McDonnell Douglas agreed to accept $93 million in a mixed bag of goods including Thai rubber, ceramics, furniture, frozen chicken and canned fruit.
  iii. A private developer undertakes all activities necessary to produce a project, including land purchase, permits, plans and construction, and sells the ready project to the housing authority. [5] [CO5]

Q.3(b) Identify the type of offensive tactic highlighted in the following situations:
  i. HUL introduces Knorr instant noodles to compete with Nestle Maggi.
  ii. Toshiba used superior technology to upgrade picture quality standards to launch a new range of televisions which used flat square tube technology.
  iii. Reliance trends attacked on Shoppers stop, lifestyle, big bazaar in terms of fashion, features, user preferences and anything that might interest the consumer.
  iv. Canon acquired Xerox's copier market share by targeting on small size photo copier market that could not afford Xerox's large photo copiers.
  v. In FIFA world cup, Adidas was the game's official sponsor while Nike advertised its products through TV commercials and popular football players. [5] [CO3]

Q.4.(a) Identify and explain the strategic decision-making mode adopted in the following situations:
  i. Nestle India announced a voluntary recall of the Maggi noodles on 5th June 2015, the same day national food regulator, Food Safety and Standards Authority of India (FSSAI) banned its sale alleging excessive levels of lead in it and mislabeling on the pack.
  ii. Wipro Infotech introduced customized PC in response to dell computers entering Indian market. [5] [CO2]

Q.4.(b) The Botanical park was set up 150 years ago with the following mission statement: "The park belongs to the nation. We strive to enhance knowledge and awareness of flora and fauna, their significance and their preservation, by exhibiting living and preserved collections and via horticultural research." Situated in the centre of the state, local families and large number of international tourists visit the parks frequently. Inspite of charging admission fee, it is amongst the top five tourist attractions in the nation. Every day it receives many hundreds of inquiries from universities, research institutions and pharmaceutical

_____SEMESTERB.Tech./B.Des./BBA/BAE/M.Sc./M.Des./M.Tech./MBA/Ph.
D/ B.Tech. (Eve)

ENDTERM EXAMINATION   Nov/Dec-2022

MBA 205 - Applied Business Analytics and Intelligence

Time: 03:00Hours   Max.Marks:50

Note : All questions carry equal marks. Any 5 out of 6.
Assume suitable missing data, if any.
   Calculator Allowed

Q.1 Explain the capability maturity model with example.[10][CO#1]

Q.2 Discuss machine learning algorithms.   [10][CO#2]

Q.3 What is null and alternative hypothesis. Discuss T-test and type I
    and II errors.   [10][CO#3]

Q. 4 Table Name – STUDENT   [10][CO#2]

Student_Id	Student_Name	Marks	Subject
1	Akbar	10	Marketing
2	Birbal	20	Marketing
3	ChandraGupta	30	DBMS
4	Dhritrashtra	40	DBMS
5	Eklavya	50	DBMS
6	Fanish	60	Finance
7	Ganesh	70	Finance

[a] Write a query to select students with marks in the range 20 and
60.

   [b] Write a query that display subject and average marks obtained
in that subject.

Q.5 What are the components of time series. Explain forecasting
accuracy measures.
    [10][CO#2]

Q.6 DiscussARIMA(p, d, q).   [10][CO#3]

Total no. of Pages:02　　　　　Roll no............

THIRDSEMESTERMBA

END TERM EXAMINATION　　　Nov/Dec-2022

COURSE CODE MBAHR211

COURSE TITLE Industrial Relation &Labor Legislation

Time: 03:00 Hours　　　　　　　　　Max. Marks: 50

Note :ATTEMPT ANY FIVE QUESTIONS
All questions carry equal marks.
　　　Assume suitable missing data, if any.

Q.1　Describe the specific objectives and scope of labor legislation in India.　　　　　　　　　　　　　　　　[10 MARKS] [CO1]

Q.2　Briefly summarise the welfare measures provided for workers in The Factories Act, 1948. Discuss the rationale of the provisions.　　　　　　　　　　　　　　　　　　　　　[10 MARKS] [CO2]

Q.3　Examine the provisions for settlement machinery according to the Industrial dispute Act, 1947.　　　　　　[10 MARKS] [CO3]

Q.4　Identify the issues pertaining to non-harmonious relations in industry. Give remedial measures in accordance to the labor laws that you have studied.　　　　　　　　　　[10 MARKS] [CO4]

Q.5 Can an employer discharge or dismiss a woman during or on account of absence from work in accordance with the provisions of the Maternity Benefit Act, 1961, or during pregnancy? Can any deductions be made from the normal and usual daily wages of a woman entitled to maternity benefit?   [10 MARKS] [CO1]

Q.6 An accident took place while an insured person was coming from his place of work with the express permission of his employer as a passenger in a vehicle provided by the employer. The injured person was under no obligation to his employer to travel by that vehicle. State whether this injured person is entitled to disablement benefits.   [10 MARKS][CO1]

Roll No. 272

12

MBA [std]

THIRD SEMESTER

END SEMESTER EXAMINATION   Nov.-Dec.,2022

MBAMK211- Digital Marketing Strategy

Time: 3:00 Hours   Max. Marks: 50

Note: Answer ALL questions. All questions carry equal marks. Assume suitable missing data, if any.

Q.1 Attempt any TWO of the following   [5+5]

  i. Explain with examples the concept of Online Value Proposition. [CO1]

  ii. Discuss key elements of marketing communication through the DRIP model. What are the steps to creating marketing communication strategy? [CO3]

  iii. Choose any online food delivery app and lay out the key criteria of the six brand elements (Keller's CBBE model) you feel they have used to develop their brand building activities. [CO2]

Q.2 Attempt any TWO of the following   [5+5]

  i. Explain with suitable examples Network Effect and its impact on usage of a particular good or service. [CO1]

  ii. What is web development cycle? Explain the stages of a web development cycle in detail. [CO2]

  iii. "You can never go wrong by investing in communities and the human beings within them". Examine the role of social media and blogs in light of this statement. [CO3]

Q.3 Refer to the case studies discussed in class and attempt any TWO of the following   [5+5]

i. Identify and elaborate the successful factors for building Glossier's customer equity.   [CO1]

ii. What traffic building strategies has The Vanca adopted? Is traffic building enough?   [CO2]

iii. What is Gupta media's unique value added? What do they do well? How do they do it?   [CO2]

Q.4 Digital media planning entails the development and execution of online ad campaigns and involves channels such as social, search, display and mobile. Design a Digital media plan for an international conference being organized by the University.   [10] [CO2, 4]

Q.5 Choose an apparel brand on the online store and develop the set of activities that you as a marketer would pursue to lead a visitor across the REAN funnel stages.   [10] [CO1,4]

Customer	Movie				
	A	B	C	D	E
C_1	4	1	3	2	4
C_2	3	2	4	4	2
C_3	3	3	4	4	4
C_4	3	3	2	3	3

5. [i] A retail database has 6 transactions as shown below.

TID	Items
1	A, B, C
2	B, C, D
3	B, D, E
4	A, B, D
5	A, B, C, E
6	A, B, C, D, E

TID: Transaction ID

Use Apriori method to find all the frequent patterns. Show all intermediate steps to illustrate pruning based eliminations (Assume *minsup* =55 % *i.e.* 3.3).

[ii] Present steps involved and challenges in text mining (Max: 200 words).
6+4 = 10 Marks (CO1, CO3)

6. Write short notes on any two of the following:
5X2 =10 Marks (CO1,CO2,CO4)
   i. Recommender Systems with an illustration
   ii. Commonly used web analytics metrics
   iii. Any two business applications of Artificial Intelligence
   iv. Challenges likely to be faced while building a model for predicting election results in India (or choose any other context)

END SEMESTER EXAMINATION   NOV-2022

MBAAN211 Business Intelligence and Analytics

Time: 3:00 Hours   Max. Marks: 50

Note: Attempt five questions in all. Assume suitable missing data, if any. Use of calculator is allowed.

1. You are required to write True/False, choose correct option(s) or fill in the blanks. Do any 10 parts. Each of part is of 1 mark.
   10 Marks (CO1, CO2)
   i. Given that Covariance (X,Y) = 5 and Covariance(P,Q) = 2.5. This implies that association between P and Q is half the association between X and Y (True/False).
   ii. Partial correlation coefficient $r_{xy.z}$ calculates the association between variables y and z while keeping variable x as constant (True/False).
   iii. If there is problem of *auto-correlation* in a regression model, the regression coefficients shall not be BLUE (True/False).
   iv. If an item set is frequent, then all of its subsets must also be frequent. (True/False)
   v. The clusters should be so formed that the objects across the clusters are heterogeneous (True/False)
   vi. Decision Support Systems are based on only structured data (True/False)
   vii. A model has always only uncontrollable variables as inputs. (True/False)

viii. Cluster algorithms are ----------------- (supervised or unsupervised) learning algorithms.

ix. In the context of Big Data, the 3 Vs stand for ---

x. A random variable X following Normal Distribution can take values between ---- and ------.

xi. In SQL, INSERT INTO TABLE is part of (a) Data Definition Language (b) Data Control Language (c) Data Manipulation Language

xii. matrix object in R can have data elements of mixed data types (TRUE/FALSE)

2. Assume that you are appointed as a Business Analyst by a travel agency. The organization is facing a serious issue of customer dissatisfaction due to issues such as inefficient complaint lodging platform, service delays, billing related errors, etc. You have been asked to develop a plan to improve relationship with customers through effective support.

[i] What shall be your approach to develop the plan? (Answer in the form of bullets).

[ii] What are the different data items which you shall be requiring for this task. How will you get these data (i.e. sources)? Categorize the data into various attribute types.

5X2 =10 Marks (CO1,CO2,CO3)

3. The following table shows distance from home to DSM, number of hours of self-study per week and overall performance scores of 9 MBA students. Propose a multiple linear regression model by choosing appropriate dependent variable and independent variables. Treat first 6 records as training dataset and remaining 3 as validation dataset. Select anyone of the two independent variables and fit an appropriate simple linear regression using first 6 records (columns)

pertaining to first 6 students. Apply the fitted model by suitably using data in the next 3 records (columns) to compute Root Mean Square Error.   10 Marks (CO2)

Student Code	1	2	3	4	5	6	7	8	9
Self-study(Hrs)/week	12	12	8	4	2	2	4	6	12
Distance (KM)	2	1	5	10	20	25	10	7	2
Performance	85	95	70	40	20	20	38	65	90

4. [i] What are different types of data generated through web page visits and how these can be used for attracting customers to an e-commerce site.

OR

An online store sells products under 8 categories labelled:A,B,C,D,E,F,G,H. The past purchase details of 5 customers are given below where 1 indicates purchase and 0 indicates no purchase. Use Jaccard coefficient to find customer who is closest to customer C_1

Customer	Categories							
	A	B	C	D	E	F	G	H
C_1	1	0	0	1	1	0	1	1
C_2	1	0	1	1	1	1	0	0
C_3	0	1	1	0	0	0	1	1
C_4	1	0	0	1	1	0	0	0
C_5	1	1	1	0	0	0	0	1

5 Marks (CO1, CO3)

[ii] The movie ratings given by 5 customers C_1, C_2, C_3 and C_4 on five movies A,B,C,D and E are given below. Use Cosine similarity to find among customers C_1, C_2, and C_3 who is closest to customer C_4.   5 Marks (CO1, CO3)

3rd Semester

MBA

END TERM EXAMINATION .... Nov/Dec- 2022

MBAFM211 ... Investment Management

Time:03 hours   Max Marks:50

> **Note: Answer any Five Questions.**
> **Assume suitable missing data, if any.**
> **Use of calculator is allowed.**

1) Mr. Jayant estimates that there will be annual cash flows of Rs. 50,000/- for 4 years, from the end of three years from now. Mr. Jayant wants to immunize the payments by investing in following two bonds:

   i) BOND X- A zero coupon Bond of FV Rs.1000/- maturing after 6 years and currently traded at Rs.455.60/-

   ii) BOND Y- A 12% Coupon bearing Bond of FV- Rs.1000/- maturing after 5 years redeemable at par value and currently traded at Rs.930.90

Assume the interest rate at 14%, you are required to determine:

   a. The proportion of funds to be invested in Bonds X and Bonds Y such that Mr. Jayant's payments are immunized.

   b. Whether Mr. Jayant will still be immunized after 2 years from now. (Show calculation)

   c. The sensitivity of a bond's price to changes in market interest rates is influenced by three key factors. Explain these factors in brief.   (4+3+3) (CO1,3)

2) A. From the data given below, analyse the fund's performance using a) Sharpe's measure, b) Treynor's measure and c) Jensen's alpha. Assume that the return on 10- year G-sec is 7%.

Date/year	NAV of Tata MF	NAV of Reliance MF	Sensex value
Q1-2020	560	555	33500
Q2-2020	570	585	34500
Q3-2020	580	655	35500
Q4-2020	590	725	36000
Q1-2021	600	755	36500
Q2-2021	620	795	37400
Q3-2021	660	835	37900
Q4-2021	720	875	38000

B. From a single investor's perspective which measure of risk is more relevant: Standard deviation or Beta, Explain.

(8+2) (CO3)

3) A high-net-worth investor Mr. Narayan Murthy has a corpus of Rs.10,000,000 earmarked for fixed income securities. The investment horizon is 5 years. He is considering investment in one of the following:

i. 9% non-convertible debentures of Jindal Steel Limited (Face value Rs.1000) selling at par. These debentures will be redeemed at par after 5 years. Interest is payable annually.

ii. 10% non-convertible debentures of Aastha steel Ltd. (Face value Rs.1000) selling at Rs.1100. These debentures will be redeemed at par after 7 years. Interest is payable annually.

You are required to:

a. Help Mr. Narayan Murthy to immunize the investment against 1% change in interest rates. Which one of the aforementioned instruments will you recommend him for this purpose? Give reasons.

b. State whether the investment recommended in (b) above offer perfect immunization and also give conditions to be fulfilled for perfect immunization of bond investment.

c. Briefly explain the three forms of efficient market hypothesis and its implications for portfolio managers.

(4+3+3) (CO2,3)

4) The yield to maturity on one-year zero-coupon bonds is currently 7%; the YTM on two-year zeros is 8%. The Treasury plans to issue a two-year maturity coupon bond, paying coupons once per year with a coupon rate of 9%. The face value of the bond is $100.

a. At what price will the bond sell? What will the yield to maturity on the bond be?

b. If the expectations theory of the yield curve is correct, what is the market expectation of the price that the bond will sell for next year?

c. Recalculate your answer to (c) if you believe in the liquidity preference theory and you believe that the liquidity premium is 1%.

(4+3+3) (CO1)

5) i) Pharma co. pays a current (annual) dividend of $1.00 and is expected to grow at 20% for 2 years and then at 4% thereafter. If the required return for Pharma co. is 8.5%, what is the intrinsic value of Deployment Specialists stock?

ii) A firm has a tax burden ratio of 0.75, a leverage ratio of 1.25, an interest burden of 0.6, and a return on sales of 10%. The firm generates $2.40 in sales per dollar of assets. What is the firm's ROE?

iii) Identify and explain three reasons why, over an extended period of time, value stock investing might outperform growth stock investing.

(4+3+3) (CO1,2)

6) What is Technical analysis? How is it different from Fundamental analysis? Briefly explain the three important assumptions on which Technical analysis is based?

ii) "Support and Resistance levels are seen as important in terms of market psychology and supply and demand". Comment by highlighting it's importance.

iii) "While price is the primary item of concern in technical analysis, volume is also extremely important." Give your argument.

(4+3+3) (CO1,2)

_____XXXXX_____

III SEMESTER

MBA

END TERM EXAMINATION   *Nov/Dec-2022*

MBAHR213 Compensation Management

Time: 03:00 Hours   Max. Marks: 50

Note : All questions carry equal marks.
       Assume suitable missing data, if any.

Q.1 You own ABC Ltd., a high-tech firm specializing in the coating of cutting tools (eg. Drill bits) to provide longer life before re sharpening is needed. You are concerned that the competition continues to develop new coating methods and new applications of coating in different industries. You want to create a work environment where the employees provide more new product ideas and new industries where these ideas may be applied. What kind of compensation plan do you suggest for the employees. [10][CO2,5]

Q.2 Compare and contrast the compensation practices of any two countries.   [10][CO2,3]

Q.3 Three tests for any source of competitive advantage are align, differentiate and add value. Discuss the challenges in passing these tests and also comment if compensation can really be a source of competitive advantage.   [10][CO5]

Q.4 In the cut throat competitive situation in the businesses today, explain the essence of Key performance indicators and business metrics   [10][CO1,4]

Q.5 Discuss the aspects related to salary computation as per 7th pay commission in detail   [10][CO4,5]

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Note :Answer any two out of question no. 1,2 & 3.
Question 4,5,6 are compulsory
Marks are indicated along with each question.
Assume suitable missing data, if any.

Q.1 a) What is hedging? What are the risks that organisation can control using hedging?   (5 Marks) (CO5)

b) Briefly explain the risks faced by investment banks?   (5 Marks) (CO5)

Q.2 Briefly explain the following: (2 Marks each) (CO3, CO4)
   a. Discount Bond b. Junk Bond c. Yield to Maturity
   d. Reinvestment Risk   e. Protective Covenants

Q.3 Give two distinguishing/unique risks facing the following industries:
                                                       (2 Marks each) (CO2)

   a. Tractor b. Online Marketplace c. Dairy d. Food Snacks e. Banks

Q.4 a) Explain corporate actions and its impact on stock prices.   (5 Marks) (CO3)

b) Key Financials for three companies is given below. Based on the data, calculate the key relative valuation ratios of P/E, P/B and EV/EBITDA and rank the companies based on the ratios. Which is the most appropriate ratio to compare the companies.   (5 Marks) (CO1)

(Unit INRcr, except mentioned if any)	A	B	C
Sales	20000	14000	6000
EBITDA Margin (%)	20	25	10
PAT Margin (%)	10	12	5
Return on Equity (%)	15	30	5
Debt	400	300	100
Interest Cost (%)	8	9	7
Cash	50	40	0
Outstanding Shares (Cr)	1.5	2	0.8
Dividend Per Share	100	60	40
Dividend Yield (%)	0.8	0.6	0.3

P.T.O.

Q.5 Answer True or False with brief explanation

(1 Marks each) (CO1, CO3, CO4, CO5)

a. Current yield and Yield to Maturity for a bond are equal.
b. The only risk associated with owning a bond is that the issuer will not make all the payments.
c. Bond rating measures the risk of fluctuations in a bond's value resulting from interest rate changes.
d. Credit spread is the spread between coupon rate and yield on bond.
e. Expectation of healthy economic growth could lead to a flat yield curve.
f. Insider Trading only deals with employees of company.
g. Valuation through EV/EBITDA takes into account the capital structure of the company.
h. Taxability of a bond can have an impact on its yield.
i. Companies with higher return on equity will command higher price/book multiple.
j. Investment grade bonds have rating higher than B+.

Q.6 a) Bond A and Bond B have 8 percent annual coupons and are priced at par value. Bond A has 2 years to maturity, whereas Bond B has 15 years to maturity. If interest rates suddenly rise by 2 percent, what is the percentage change in the price of Bond A and Bond B? If rates were to suddenly fall by 2 percent instead, what would the percentage change in the price of Bond A and Bond B? What does this indicate about the interest rate risk of longer-term bonds? (5 Marks) (CO1)

b) What is the term structure of interest rates? What determines its shape? (5 Marks) (CO3)

END

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Note: All questions are compulsory.
 All questions carry equal marks.
 Assume suitable missing data, if any.
 Use suitable examples wherever necessary.

1. Answer all the following questions: [1x10] [10][CO-1,2,3,4,5]
   a. Products that aren't physical entities are usually called _____.
   b. The competitive advantage within the cost leadership strategy is _____.
   c. The second level of the product is _____.
   d. Under the _____, the users are granted exclusive rights to use the brand name.
   e. Brand _____ is based upon the perceptions that customers hold about a particular brand.
   f. _____ is important for creating and sustaining brand equity.
   g. Unique brand identity is developed through Points of _____.
   h. The products not meant for resale are called _____ _____.
   i. The prototype of a product is known as _____.
   j. Brand recognition and brand recall is known as brand _____.

2. Attempt 2 questions out of the following.   [2x5] [10][CO-1,4]
   a. Explain Cost Leadership and Cost Focus Strategy of competitive advantage.
   b. Explain 3 levels of Product.
   c. Explain the two categories of brand attributes associated with a product/service with examples

3. Attempt 2 questions out of the following. [2x5] [10][CO-3,4,5]
   a. Mention the characteristics of a good brand name. Give examples.
   b. In which ways a firm is benefitted from brand equity?
   c. Mention the 4 key components of brand positioning.

4. Attempt 2 questions out of the following. [2x5] [10][CO-1,2,5]
   a. Discuss the Product Life Cycle and how to manage its stages
   b. What is a product? Explain the term 'Brand'
   c. With an example discuss the success of a brand.

5. Attempt 2 questions out of the following. [2x5] [10][CO-1,2,5]
   a. Discuss a brand following cost focus strategy of competitive advantage.
   b. What are the Branding opportunities and challenges?
   c. Explain the new product development process.

III SEMESTER

Master of Business Administration (MBA)

END TERM EXAMINATION   *NOV-DEC 2022*

COURSE CODE: MBAHR 217

COURSE TITLE: STRATEGIC HUMAN RESOURCE MANAGEMENT

Time: 3 Hours   *Max. Marks: 50*

Note: Each question is of 10 marks.

Q6 is compulsory for all the students.

Out of the following 6 questions you are required to attempt only 5 questions.

Q1   Why is a competitive advantage based on a heavy investment in human assets more sustainable than investments in other types of assets?   [10 Marks] [CO 1]

Q2   Explain how the dean of abc school would employ techniques of strategic workforce planning to decide how many faculty and staff to employ in the coming academic year and which specific employees to retain, reassign, or release. What critical pieces of information would the dean need in order to arrive at these decisions?   [10 Marks] [CO3]

Q3   Do performance management systems usually measure the right things? How can performance management systems encourage performance that is more consistent with long-range rather than short-term issues?   [10Marks] [CO 4,5]

Q4 To be a true strategic partner, does HR need to take on a more generalized or specialized approach to its work? Why?

[10Marks] [CO 1,2]

Q5 Explain how each of Hofstede's cultural dimensions might result in specific kinds of HR programs and practices. [10Marks] [CO 5]

Q6 As a new member of the board of directors for a local bank, Jack Nelson was being introduces to all the employees in the home office. When he was introduced to Ruth Johnson, he was curious about her work and asked her what her machine did. Johnson replied that she really did not know what the machine was called or what it did. She explained that she had been working there for only two months. She did, not know much about how to operate the machine and as per her supervisor, she was an intelligent employee. At one of the branch offices, the supervisor in charge spoke to Nelson confidentially, telling him that " something was wrong," but she didn't know what. But for one thing, she explained, employee turnover was too high. With customers to see and loans to be made, she explained, she had little time to work with new employees. All branch supervisors hired their own employees without communication with the home office or other branches. When an opening developed, the supervisor tried to find a suitable employee to replace the worker. After touring the 22 branches and finding similar problems in many of them, Nelson wondered what the home office should do or what action he should take. The banking firm was generally regarded as a well-run institution that had grown from 27 to 191 employees during past 8 years. The more he thought about the matter, the more puzzled Nelson became. He couldn't put his figure on the problem, and he didn't know whether to report his findings to the president.

Answer the following questions based on above case study:

Q1. What do you think is causing some of the problems in the bank's home office and branches? Mention main approaches of strategic human resource management to overcome the problem? [5 Marks] [CO 2,3,4]

Q2. Do you think setting up an HR unit in the main office would help? Explain the relationship between strategy and Human resource to achieve the organisational goal.   [5 Marks] [CO 3,4,5]

Particulars	Amount (Rs.)
Initial Investment	600000
Cost of capital	10%
Quantity sold	4200
Price Per unit	200
Variable cost per unit	160
Fixed Costs	60000
Depreciation	30000
Tax Rate	30%
Life of the project	10 years
Net salvage value	Nil

The value for quantity sold can take the following values in different scenarios as well

Underlying variable	Pessimistic	Optimistic
Quantity Sold	3000	6000

Based on above, answer the following questions:

a) Calculate the sensitivity of the NPV to the variations in Quantity sold and calculate the financial break-even point. [6][CO4]

b) Each project requires both fixed capital as well as working capital, and to satisfy these needs they need adequate funding. Identify and explain which sources of financing would be appropriate for different needs of a project. [4][CO1]

Q.6 Answer all the following questions

a) Compare and contrast qualitative and quantitative techniques of demand forecasting. [6][CO2]

b) "Technical analysis of a project is a continuous process". Do you agree with the statement? Discuss the purpose of technical analysis and mention major aspects that are to be included while conducting a technical analysis. [4][CO2]

----------------------END----------------------

Note: All questions carry equal marks.
    Answer five questions. Question 1 is compulsory.
    Assume suitable missing data, if any.
    Use of PVIF and PVIFA tables are allowed.

Q.1 State whether the following statements are true or false, give reasons.

a) While calculating a project's cash flows, sunk cost is considered relevant. [2][CO3]

b) NPV and IRR rule will always lead to identical decisions. [2][CO3]

c) A standard project generally goes through four major phases which represent the project's life cycle. [2][CO1]

d) Under L-M approach, FOB represents the shadow price of a traded good that is imported. [2][CO2]

e) While estimating sales, capacity utilization in the first year is often assumed to be at maximum and gradually lowers. [2][CO3]

Q.2 Answer all the following questions:

a) Soul Co. employs certainty-equivalent approach in the evaluation of risky investments. The finance department of the company has developed the following information regarding a new project.

Year	Expected CFAT (Rs.)	CE coefficient
0	(200000)	1
1	160000	0.8
2	140000	0.7
3	130000	0.6
4	120000	0.4
5	80000	0.3

Q.5 Mudra Corporation is considering the risk of a certain project. The firm has identified the following factors, with their most expected value... the price... the NPV...

b. Explain the concept of shadow price and its relevance in social cost benefit analysis. [4][CO2]

a. Calculate the relevant social costs and benefits. Should this project be accepted? [6][CO2]

Based on the above case answer the following questions

The life of the road is expected to be 20 years. Assume that all the construction, development and reallocation expenses are incurred at the beginning of the year. The road will take one year to complete.

v. Tax revenue from the area will be increased by Rs. 2 million

iv. The income of boat operators will reduce by Rs. 1 million per year, these operators will be employed elsewhere at equivalent wages.

iii. The land will result in 5000 households to reallocate from other areas where they were earning Rs. 1000 per year per household. The government will also provide each household with a one-time assistance worth Rs. 4000.

ii. Construction of the road will result in further development of 25000 acres of land which will cost Rs. 5000 per acre. The production worth Rs. 1000 per acre per year beginning at the end of the construction.

i. Rs. 2 million will be saved each year on the cost of shipping agricultural produce from the village.

analysis:

discount rate is 10%. The following effects are suggested after 1 million would be incurred annually to maintain it. The social by boat. The construction of the road will cost Rs. 30 million and Rs. from the main city to a small village that is currently only accessible

Q.3 The planning department is considering a proposal to build a road

b) Does the Certainty Equivalent Approach is considered theoretically superior to the Risk Adjusted Discount Rate? Explain. [4][CO4]

project be accepted? [6][CO4]

rate of interest in the market on the treasury bonds is 6%. Should the

The firm's cost of equity is 18%, its cost of debt is 9% and the riskless

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Q.4 Answer all the following questions:

a) The balance sheet of GED Ltd at the end of 2021 is as follows

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Share capital	2000000	Fixed Assets	1800000
Reserves and Surplus	160000	Investments	200000
Secured Loans	1600000	Cash	1000000
Current Liabilities	1000000	Inventories	1600000
Provisions	800000	Receivables	960000
Total	5560000	Total	5560000

The projected income statement and earnings distribution is as follows for the year 2022

Particulars	Amount (Rs)
Sales	8000000
Cost of goods sold	7000000
Depreciation	160000
Profit before interest and taxes	840000
Interest	400000
Profit before tax	440000
Tax @ 30%	132000
Profit after tax	308000
Dividends	100000
Retained Earnings	208000

During the year 2022, GED Ltd. is planning to raise a secured loan of Rs. 2 lacs. Inventories as well as current liabilities are to be increased by Rs. 4 lacs each, while an additional machinery component worth Rs. 2 lacs will be bought as well.

Given the above information prepare a projected cash flow statement for the year 2022. [6][CO3]

b) Discuss the major components of cost of production. [4][CO3]

Table A3 : Factors for Present Value of a Future Amount i.e., PVF$_{(n,i)}$

Period n	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.889	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.838	0.790	0.746	0.705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180
19	0.828	0.686	0.570	0.475	0.396	0.331	0.276	0.232	0.194	0.164
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149
25	0.780	0.610	0.478	0.375	0.295	0.233	0.184	0.146	0.116	0.092
30	0.742	0.552	0.412	0.308	0.231	0.174	0.131	0.099	0.075	0.057

Table A3 : Factors for Present Value of a Future Amount i.e., PVF $_{(r,n)}$

Period n	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.226	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065
16	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026
25	0.074	0.059	0.047	0.038	0.030	0.024	0.020	0.016	0.013	0.010
30	0.044	0.033	0.026	0.020	0.015	0.012	0.009	0.007	0.005	0.004

Table A4 : Factors for Present Value of a Future Annuity i.e., PVAF $_{(r,n)}$

Period n	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	1.970	1.942	1.913	1.886	1.859	1.833	1.783	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.312	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.789	5.582	5.389	5.206	5.033	4.868
8	7.652	7.326	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.134	11.348	10.635	9.986	9.394	8.858	8.358	7.904	7.487	7.103
14	13.004	12.106	11.296	10.563	9.899	9.295	8.746	8.244	7.786	7.367
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.560	8.061	7.606
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.002
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201
19	17.226	15.679	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.352	14.878	13.590	12.462	11.470	10.594	9.818	9.129	8.514
25	22.023	19.524	17.413	15.622	14.094	12.783	11.654	10.675	9.823	9.077
30	25.808	22.397	19.601	17.292	15.373	13.765	12.409	11.258	10.274	9.427

Table A4 : Factors for Present Value of a Future Annuity i.e., PVAF $_{(r,n)}$

Period n	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.192
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.487	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	5.008	4.715	4.533
14	6.982	6.628	6.303	6.002	5.724	5.468	5.229	5.092	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.162	4.876	4.675
16	7.379	6.974	6.604	6.265	5.954	5.669	5.405	5.222	4.938	4.730
17	7.549	7.120	6.729	6.373	6.047	5.749	5.475	5.273	4.990	4.775
18	7.702	7.250	6.840	6.467	6.128	5.818	5.534	5.316	5.033	4.812
19	7.893	7.366	6.938	6.550	6.198	5.877	5.585	5.467	5.070	4.843
20	7.963	7.469	7.025	6.623	6.259	5.929	5.628	5.766	5.195	4.870
25	8.422	7.843	7.330	6.873	6.464	6.097	5.766	5.467	5.235	4.948
30	8.694	8.005	7.496	7.003	6.566	6.177	5.829	5.517	5.235	4.979

Total no. of Pages:02

FIRST SEMESTER

EMBA

END TERM EXAMINATION   Nov/Dec-2022

COURSE CODE EMBA 101

COURSE TITLE MANAGEMENT PROCESS AND ORGANISATIONAL BEHAVIOR

Time: 03:00 Hours   Max. Marks: 50

Note :ATTEMPT ANY FIVE QUESTIONS
All questions carry equal marks.
Assume suitable missing data, if any

Q.1 Why do you think the subject of OB might be criticized as being "only common sense," when we would rarely hear such a comment about a course in physics or statistics? Do you think this criticism of OB is fair?   [10 MARKS][CO2]

Q.2 Discuss the concept of transactional analysis in detail explaining the types of transactions in communication. [10 MARKS][CO4]

Q.3 "Leaders make a real difference in an organization's performance." Build an argument in support of this statement. Then build an argument against this statement   [10 MARKS][CO5]

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Q.4 "Politics isn't inherently bad. It is merely a way to get things accomplished within organizations." Do you agree or disagree? Defend your position. [10 MARKS][CO6]

Q.5 Harvard University recently changed its grading policy to recommend to instructors that the average course mark should be a B. This was the result of a study showing that more than 50 percent of students were receiving an A or A– for coursework. Harvard students are often referred to as "the best and the brightest," and they pay $27 000 (US) for their education, so they expect high grades. Discuss the impact of this change in policy on the motivation of Harvard students to study harder.
[10 MARKS][CO7]

Q.6 "Management is undoubtedly one of humankind's most important inventions." Do you agree with this statement? Why or why not? Compare learning theories to justify importance of organizational behavior in management discipline.
[10 MARKS][CO1]

(b) "Depreciation is generally associated with tangible assets". Explain the factors that should be considered while calculating the amount of depreciation.   (5+5 Marks)

(c) The following trial balance is extracted from the books of M/s Ram on March 31, 2021. You are required to prepare trading and profit and loss account and the balance sheet as on date:

Account title	Amount Rs	Account title	Amount Rs
Debtors	12,000	Apprenticeship premium	5,000
Purchases	50,000	Loan	10,000
Coal, gas and water	6,000	Bank overdraft	1,000
Factory wages	11,000	Sales	80,000
Salaries	9,000	Creditors	13,000
Rent	4,000	Capital	20,000
Discount	3,000		
Advertisement	500		
Drawings	1,000		
Loan	6,000		
Petty cash	500		
Sales return	1,000		
Machinery	5,000		
Land and building	10,000		
Income tax	100		
Furniture	9,900		

(10 Marks)

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Roll no......
EMBA   Nov. 2022
Total no. of Pages:04
First Semester
END TERM EXAMINATION
EMBA102   Financial Accounting   Max Marks:50
Time:03 hours

Note: Q 1 – case study is compulsory. Answer any 3 questions from the remaining. Assume suitable missing data, if any.

Case study: (Compulsory)
1) Paul Morris is the director of Ford Yachts Ltd. The company has traded for 30 years and has in the past achieved very good levels of growth and return on capital, but this is now changing. In recent time it has failed to introduce new product lines, relying on traditional products and little has been invested in Research or Product Development.
You are a business planning consultant for a firm of Management Consultants. Ford Yachts is one of your clients. In recent times the business has experienced increased turnover but a downturn in overall performance. Paul Morris has had a meeting with your Director and he has stated that he wants to introduce tighter management control within the company. Summarised balance sheet and profit and loss account is given:

	$m 2019	$m 2020	$m 2021
Fixed assets	2.4	2.77	2.88
Current assets			
Stocks:			
Raw materials	0.09	0.12	0.15
Finished goods	0.4	0.43	0.45
Debtors	1.14	1.32	1.84
Bank	0.03	0.04	0.05
	1.66	1.91	2.49
Less Current liabilities	1.35	1.56	1.9
Net current assets	0.31	0.35	0.59
	2.71	3.12	3.47
Capital and reserves	0.5	0.91	1.26
Bank loans	2.21	2.21	2.21
	2.71	3.12	3.47

3

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	$m 2019	~~ 2020	$m 2021
Sales turnover	4.9	5.3	6.6
Operating costs	4.17	4.43	5.82
Operating profit before tax	0.73	0.87	0.78
Taxation	0.24	0.3	0.27
Profit after tax	0.49	0.57	0.51
Dividends	0.12	0.16	0.16
Retained profit	0.37	0.41	0.35

Industry average	
ROCE	26%
Asset Turnover	1.79 times
Current ratio	1.5:1
Acid test ratio	1.03:1
Debtors collection period	83 days
Gearing ratio	32.00%
Labour cost % of sales	18.10%
Operating cost % of sales	85.50%
Net profit margin	14.50%

a) Calculate the following ratios for 2019, 2020 and 2021.
   i.   Return on Capital Employed
   ii.   Asset turnover ratio   iii.Net Profit margin
  iv. Current ratio v. Acid test ratio vi. Debtors collection period
  vii. Operating cost as % of sales

b) Prepare a detailed report on the company's performance in terms of profitability and liquidity compared with the average of the sector over the period.   **(14+6 marks)**

2) Ajay Company reported a profit before tax of Rs. 432,000 for the year ended March 31, 2022. Relevant balance sheet account balances at March 31 are as follows:

	2022	2021
Inventories	59,000	72,000
Trade receivables	94,000	61,000
Prepaid expenses	14,000	3,000
Trade payables	82,000	78,000
Income tax payable	13,000	19,000

The statement of profit and loss for the year ended March 31, 2022 reported depreciation expense of Rs.49,000, income tax expense of Rs.92,000, and gain on sale of investments of Rs.8,000.

a) Calculate the net cash flow from operating activities using the indir method. What inferences can we draw from the calculated Cash flow fr operation?

b) What is the importance of Cashflow statement for an analyst? Also exp in brief the three types of cashflow presented in the statem
                                            (5+5 Mar

3) Mr. Anil Roy, a junior lawyer, provides the following particulars for the ended 31st March, 2022:
  a. Fees received in cash in 2022 Rs. 60,000.
  b. Salary paid to Staff in 2022 Rs. 8,000.
  c. Rent of office in 2022 Rs. 14,000.
  d. Magazine and Journal for 2022 Rs. 1,000.
  e. Travelling and Conveyance paid in 2022 Rs. 3,000.
  f. Membership Fees paid in 2022 Rs. 1,600.
  g. Office Expenses paid in 2022 Rs. 10,000.

Additional Information:-
  a. Fees include Rs. 3,000 in respect of January 2021 and fees not yet rece is Rs. 7,000.
  b. Office rent includes Rs. 4,000 for previous year and rent of Rs. 2,000 no paid.
  c. Membership fees is paid for 2 years.

Pass the journal entries and compute his net income for the year ending 31st Ma 2022, under – (a) Cash Basis, and (b) Accrual Basis. Comment.   **(10 Mai**

4) Explain the following accounting principles with suitable example:
  a. Accounting period
  b. Separate entity
  c. Money measurement
  d. Dual Aspect
  e. Conservatism
                                        (10 Mark

5) (a) On 1st April, 2021, Sonam Coms Ltd. bought Plant and machinery costing Rs. 68,000. It is estimated that its working life is 4 years, at the end of which it will fetch Rs. 8,000. Calculate the depreciation by both the methods (SLM and WDV) assuming WDV rate @ 12%. Also, explain the impact on profit using both the methods.

Note: Attempt any *Five* questions
All questions carry equal marks.

1. Attempt any two of the following:
   a) Donald E. Petersen, chairman of the board of Ford Motor Company, remarked, "If we aren't customer-driven, our cars won't be either." Explain how this statement reflects the marketing concept. [CO1]
   b) How does marketing environment analysis help marketing strategy formulation? [CO4]
   c) What are the five-six emerging trends which you believe are going to dominate the marketing landscape in next couple of years? [CO4]

2. Rapido is an Indian bike taxi aggregator and logistics service provider based out of Bengaluru. Founded in 2015, the company operates in over 100 cities. The Rapido app allows the user to book a ride, after which a rider (called "Captain") arrives at the location. The fare includes a base fare of ₹15 in addition to ₹3 for every kilometer of the ride. The "Captains" need to register through the Rapido-Captain app and get validated by submitting the required documents. They can use motorcycles, scooters, or e-bikes, but the vehicle cannot be older than 2012. The company's bike taxi booking platform helps to book a bike ride with just two taps with helmets and shower caps to make the experience smoother and hygienic and economical and transparent fares, enabling users to experience the most affordable and fun commute option in the city.
   a) Develop a suitable Environmental Threat and Opportunity Profile of Rapido? [CO4]
   b) Identify the major segments and target market for the company. [CO2]

3. "Positioning connects product offering with target market". Explain citing two examples from Indian market. Also provide a successful case of repositioning of a brand in recent times explaining how it became a success. [CO2]

4. Differentiate between product extension and brand extension with suitable examples from Indian FMCG market. What strategic framework would you like to suggest to a product which is in growth stage of its life cycle? [CO4]

5. "In comparison to other elements of marketing mix, distribution channel provides a sustainable competitive advantage to a firm". Justify the statement by giving two examples from Indian market explaining the way distribution channels created competitive advantages to them? [CO6]

6. a) Differentiate between earned, owned and paid media. [CO2]

   b) What is pricing threshold concept? Take a recent example of a brands, which according to you have resorted to "pricing to capture value". Justify your choice. [CO2]

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End Semester Examination   Nov/Dec 2022

EMBA-104 MANAGERIAL ECONOMICS

Time: 3 Hours   **Max Marks: 50 Marks**

Note: Attempt any 5 Questions.

Assume suitable missing data, if any

Q.1   Managerial economics works on some fundamental principles. **[10 Marks]**
       Examine.

Q.2   Determine the nature and scope of managerial economics and **[10 Marks]**
       the relatedness of other disciplines

Q.3   Assess the various degrees of price elasticity with graph and **[10 Marks]**
       examples.

Q.4   Illustrate the relationship between Average Cost & Marginal **[10 Marks]**
       cost with the help of suitable example.

Q.5   Difference between **[10 Marks]**
         a) Monopoly and Monopolistic competition
         b) Macro and Micro economics

Q.6   "In short run, a perfect competitive firm can face three **[10 Marks]**
       situations but in long run, it earns normal profit only". Justify
       the statement.

Q.7   Analyse the income method of national income estimation. **[10 Marks]**
       What precautions should be taken while using this method?

Total no. of Pages: 02

I SEMESTER
EMBA

END TERM EXAMINATION

NOV-2022

EMBA-106   PRODUCTION AND OPERATION MANAGEMENT

Time: 3 Hours

Max. Marks: 50

Note: Answer any FIVE questions
All questions carry equal marks.
Assume suitable missing data, if any.

Q1(a) Define Production and productivity. Explain [05] [CO1] difference between the two.

(b) State the role of Govt., employer, and workers for [05] [CO1] productivity.

Q2(a) Forecast the demand for the following series by [05][CO2] exponential smoothing method:

Period	1	2	3	4	5	6	7	8	9	10
Actual Demand	10	12	8	11	9	10	15	14	16	15

(b) Describe the following sales forecasting method [05][CO2] (i) Executive opinion method (ii) Sales force composite method

Q3(a) What is the difference between Method study and [05][CO3] work measurement? State the objectives.

(b) Explain how 'Work study' concepts can be utilized to [05][CO3] improve 'Productivity'

Q4(a) What do you mean by the term 'Product design'? [05][CO4] What are the steps used in product design? Discuss them.

(b) Discuss factors that affect the decision to outsourcing [05][CO4] a supply chain function.

Q5(a) Define plant Layout. Describe the major steps of planning any layout. [05][CO

(b) Barmer Laurie company has a backlog of 250 barrels of Manny's Pale Ale at December. Demand is expected to be 400 barrels in January, 500 barrels in February, and 550 barrels in March. Each Barmer Laurie worker can produce 50 barrel per month, with regular wages coating the company $1,000 per worker per month. Hiring costs have been calculated, resulting in a cost of $2,500 per worker. Firing costs have been calculated, resulting in a cost of $5,000 per worker. Backlog costs have been determined to cost the company $25 per unit, per month. There is no costs associated with carrying inventory. Develop a level production plan and determine the cost. [05][CO

Q6(a) What do you understand by acceptance sampling? When is it used? Write its advantages and disadvantages. [05][CO

(b) Briefly discuss the statistical quality control procedures by charts and diagrams. What is meant by 'quality circle'? Is there any additional benefit from this? [05][CO

Q7 Write short notes on

(a) Maintenance management [05][C

(b) Role of IT in manufacturing [05][C

1ˢᵗ Semester

Btech/B.Des./BBA/BAE/M.Sc./M.Des./M.Tech/MBA/Ph.D/B.Tech [Eve]

END TERM EXAMINATION   · *NOV-DEC* 2022

COURSE CODE: EMBA-107   COURSE TITLE: Computer Application in Management

Time 3:00 Hours   Max Marks 50

> Note: All Questions are compulsory
> All questions carry equal marks
> Assume suitable missing data. If any.

Q.1. a) Explain any 5 mathematical and 5 date and time functions.
(Marks-5, CO-1)

b) Explain the four types of scales (Marks-5, CO-3)

Q.2. Explain the application of computerisation in various business systems. (Marks-10, CO-2)

Q.3. Explain the functions of operating system. (Marks-10, CO-4)

Q.4. Explain the features of Word Processor. (Marks-10, CO-1)

Q.5. What are the strategic issues of computer aided decision making? (Marks-10, CO-3)

Q.6. Explain the features of Presentation software. (Marks-10, CO-1)

Q.7. Explain the Applications of MS Excel. (Marks-10, CO-2)

Total no. of pages_One   Roll No..........
FIRST SEMESTER (MBA)
End Sem Examination   Nov-Dec 2022
MBA-109 Legal Aspects of Management
Time: 3 Hours   Max. Marks: 50

> Attempt any FIVE questions. All questions carry equal
> marks. Assume suitable missing data, if any.

Question 1. Discuss the various stages in the formation of a
Public company. (10 Marks)   CO-2,3

Question 2. Explain the various types of resolutions. Also,
elucidate how Voting by Show of Hands is different from Voting
by Poll. (10 Marks)   CO-1,4

Question 3. With the help of suitable examples, describe the
various essentials of a Contract. (10 Marks)   CO-1,3

Question 4. Who is an Unpaid Seller under Sales of Goods Act?
What are his rights? (10 Marks)   CO-2,5

Question 5. A has instituted a complaint before the Consumer
Court against a Medical Practitioner. His complaint has been
challenged on the ground that a Medical Practitioner cannot be
sued under the Consumer Act. What does law provide? Also,
discuss the pecuniary limits under the three tier redressal
machinery. (10 Marks)   CO-2,4

Question 6. Discuss the concept of Intellectual Property. Explain
its various types with examples. (10 Marks)   CO-1,4

Question 7. Deliberate on the concept of Dominance under
Competition Act. Also, discuss the abuse of Dominance. (10
Marks)   CO-3,5

Roll No................

3rd Semester
EMBA

End-Term examination   Nov/Dec-2022

ESCM-01   Total Quality Management

Duration: 3 Hours   Max Marks: 50

Instructions:

a. Attempt any 5 questions.
b. All questions carry equal marks.
c. Assume missing data, if any.

1. (a) Describe how increased market share and profitability can result
    from improved quality.   [5] [C01]
    (b) Explain Deming's fourteen points. Discus their usefulness in the
    Indian context.   [5] [C01]

2. (a) Total quality management is gateway to customer satisfaction.
    Discuss with suitable examples.   [5] [C02]
    (b) What do you mean by service quality. How it differs from
    product quality? What customer service quality elements you would
    take into account to design service quality system of your
    organization?   [5] [C02]

3. (a) List various techniques for continuous improvement. Why
    Kaizen techniques are not succeeding in Indian industrial scenario?
    Write   an   appraisal   note   in   this   regard.
                                                              [5] [C03]
    (b) How 5S methodology helps to create visual workplace. Discuss.
    Suggest a roadmap to implement 5S in your organization.
                                                              [5][C03]

4. (a) Describe each of the "seven tool of quality management". Where
    would you use them?   [5] [C04]
    (b Write short notes on (i) Juran's Trilogy and (ii) PDSA cycle.
                                                              [5] [CO3]

5.(a) What do you mean by benchmarking? Does benchmarking helps
    a firm to be proactive? Explain various levels of benchmarking
                                                              [5] [C05]

(b) "What gets measured gets done." In view of this concept, discuss the approach and utility of ISO-9000 quality measurement system for an organization.

[5] [CO5]

6. (a) Following data pertains to three vendors of an organization. They want to rate these vendors. Performance data is as under:

Vendor Data	A	B	C
Quality Supplied	90	80	75
Quality accepted	78	80	70
Price of each item	Rs 4	Rs 4.2	Rs 3.9
Delivery promised	6 weeks	6 weeks	6 weeks
Actual deliveries	8 weeks	6.2 weeks	7 weeks

Weightage: quality= 70%, price=20%, delivery= 10%
Develop a composite vendor rating plan based upon above data and help the organization to rank the vendors. Highlight advantages and limitations of you approach.

[5] [CO3]

(b) XYZ company manufactures piston rings. For better quality control company has introduced SQC on its shop floor. Sample checks on diameter of the piston rings are taken as they are produced. Samples are taken in a bunch of 5 items. Results of such 20 samples yields the following:

μ= 0.2244 cm and $\overline{R}$ = 0.0023 cm.

Draw the control limits for process control chart.

If sample size is changed to 10, how would the process control chart be different? Give your justification.

For sample size 5: A_2 = 0.577 D_4 = 2.115 D_3 = 0

For sample size 10: A_2 = 0.308 D_4 = 1.777 D_3 = 0.223   [5] [CO3]

7. Study the case and answer the questions:

Chrysler pioneered its immensely popular mini van in 1984, which quickly became the bestselling product the company had ever built. Within five years, Chrysler held more than 50 percent of the market share for mini vans. In 1989 Chrysler offered a new automatic transmission as an option for some of its top models of mini vans

and luxury automobiles. The new transmission immediately ran into trouble when many customers reported serious problems.

Claiming that it had made improvement to reduce the initial problem, Chrysler continued to use the transmission. Meanwhile the Centre for Auto Safety, a consumer group that monitors the auto industry charged that Chrysler had not tested the transmission before introducing it. The group's claim was supported by data on owner complaints and frequency of repairs. During the first years of ownership itself, about 20 percent of the owners were reporting problems with the new transmission.

For the 1991 model, Chrysler extensively modified the design of the vehicle but continued to use the same problematic transmission as standard equipment, with most of the larger engines in high demand.

As a result, the Chrysler which was placed at the top in the magazine "Consumer Reports" for many years, dropped to the bottom of the list in 1991, citing the transmission in particular as well as other signs of deteriorating quality. A new Toyota model captured the top spot that year.

Questions:

(a) To what factors might you attribute Chrysler's failure to maintain market leadership. [5] [CO2]
(b) What might Chrysler have done differently? How might a stronger focus on quality have helped? [5] [CO1]

Total No. of pages: 01

THIRD SEMESTER
END TERM EXAMINATION

Roll No...........................

EMBA

(NOVEMBER-2022)

EFM-02: Corporate Mergers, Acquisitions and Restructuring

TIME- 3 HRS

Max. Marks: 50

Note: 1. Attempt any FIVE questions.
2. All questions carry equal marks.

Q.1. Why companies go for inorganic growth? What are the objectives that management pursue?

Q.2. Explain the following:

a) Joint Venture
b) Partnership

Q.3. What is deal design? Explain the agenda for designing the deal.

Q.4. Due diligence is important both from acquisition and integration point of view. Give a programme for due diligence for a company of your choice.

Q.5. What is due diligence report? Give contents of a due diligence report.

Q.6. Explain the following:

a) Leverage Buy Out (LBO)
b) Management Buy Out (MBO)

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III Semester
End Term Examination
Course Code – EFM-04

EMBA (DSM)
November-2022
International Financial Management

Time: 03:00 Hours
Max. Marks: 50

Instructions: Attempt Any five questions. All questions carry equal marks. Assume suitable missing data, if any.

Q1.
a) What is the difference between balance of payment and balance of trade?
b) Discuss the Sterilized and non-Sterilized interventions.

[5+5=10M] [CO1]

Q2.
a) Explain the Direct and Indirect quotation with examples.

b) Explain the concept of interest rate parity. Provide the rationale for its possible existence.

[5+5=10M] [CO2]

Q3. The one-year interest rate in New Zealand is 6 percent. The one-year U.S. interest rate is 10 percent. The spot rate of the New Zealand dollar (NZ$) is $.50. The forward rate of the New Zealand dollar is $.54. Is covered interest arbitrage feasible for U.S. investors? Is it feasible for New Zealand investors? In each case, explain why covered interest arbitrage is or is not feasible.

[10M] [CO2]

Q4. Assume the following information:

	Quoted Price
Value of Canadian dollar in U.S. dollars	$.90
Value of New Zealand dollar in U.S. dollars	$.30
Value of Canadian dollar in New Zealand dollars	NZ$3.02

Given this information, is triangular arbitrage possible? If so, explain the steps that would reflect triangular arbitrage, and compute the profit from this strategy if you had $1,000,000 to use. What market forces would occur to eliminate any further possibilities of triangular arbitrage?

[10M] [CO2]

Q5. Assume that Carbondale Co. expects to receive S$500,000 in one year. The existing spot rate of the Singapore dollar is $.60. The one-year forward rate of the Singapore dollar is $.62. Carbondale created a probability distribution for the future spot rate in one year as follows:

Future Spot Rate	Probability
$.61	20%
$.63	50%
$.67	30%

Assume that one-year put options on Singapore dollars are available, with an exercise price of $.63 and a premium of $.04 per unit. One-year call options on Singapore dollars are available with an exercise price of $.60 and a premium of $.03 per unit. Assume the following money market rates:

	U.S.	Singapore
Deposit rate	8%	5%
Borrowing rate	9%	6%

Given this information, determine whether a forward hedge, money market hedge, or a currency options hedge would be most appropriate. Then compare the most appropriate hedge to an unhedged strategy and decide whether Carbondale should hedge its receivables position.

[10M] [CO3]

Q6. Determine the NPV from the perspective of parent company when the Host Country is Singapore. Should proposal be accepted?

PARTICULARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Price/unit	S$ 375	S$ 325	S$ 360	S$ 380
VC/unit	S$ 200	S$ 200	S$ 250	S$ 260
Fixed Annual Expense	S$ 1,000,000	S$ 1,000,000	S$ 1,000,000	S$ 1,000,000
Demand (Units)	60,000	60,000	100,000	100,000
Annual lease expense	S$ 1,000,000	S$ 1,000,000	S$ 1,000,000	S$ 1,000,000
Exchange Rate	£ 0.56/ S$	£ 0.57/ S$	£ 0.58/ S$	£ 0.59/ S$
$PVF_{(0.15,n)}$	0.869565217	0.756143667	0.657516232	0.571753246

Initial investment by parent Company in London = £ 8,200,000
Depreciation = S$2,000,000
Host Govt. tax = 20%
Net CF remitted = 100%
Withholding tax =10%
Salvage = Nil
Discount Rate =15%

[10M [CO4]

Q7. One year ago, you sold a put option on 100,000 euros with an expiration date of one year. You received a premium on the put option of $.04 per unit. The exercise price was $1.22. Assume that one year ago, the spot rate of the euro was $1.20, the one-year forward rate exhibited a discount of 2%, and the one-year futures price was the same as the one-year forward rate. From one year ago to today, the euro depreciated against the dollar by 4 percent. Today the put option will be exercised (if it is feasible for the buyer to do so).

a. Determine the total dollar amount of your profit or loss from your position in the put option.
b. Now assume that instead of taking a position in the put option one year ago, you sold a futures contract on 100,000 euros with a settlement date of one year. Determine the total dollar amount of your profit or loss.

[10M] [CO4]

Total no. of Pages: 02
End Term Examination
Third Semester

Roll no...............

Nov-2022
MBA(Executive)

Paper Code: EKTM-04   Database Management System

Duration: 03 Hours   Max Marks: 50

Note: All questions are compulsory.
         Marks for questions are indicated alongside
         Assume suitable missing data, if any.

Q1. a) Differentiate between primary key and partial key using example
                                                  [2] [CO1]
b) Consider the following relation schema and set F of functional dependencies: [4] [CO2]

$$R = (A, B, C, D, E).$$

$$A \rightarrow BC$$
$$CD \rightarrow E$$
$$B \rightarrow D$$
$$E \rightarrow A$$

List the candidate keys for R.

c) What is functional dependency? Write down the rules for finding implied functional dependencies from a set of given FD's. [4] [CO2]

Q2. a) List the ACID properties. Explain the benefits of each with suitable example.   [5] [CO3]
b) What is the difference between a serial schedule and serializable schedule. Explain with suitable example.   [5] [CO3]

Q3. a) What are advantages of rigorous two-phase locking protocol over other variants of two-phase locking?   [5] [CO4]
b) When a transaction is rolled back in timestamp ordering, it is assigned a new timestamp. Explain the reason.   [3] [CO4]

c) What is cascadeless schedule?   [2] [CO4]

Q4. Consider the following relation schema and set of functional dependencies: [10] [CO2]

$$R = (A,B,C,D,E,F,G,H).$$
$$BE \rightarrow GH$$
$$G \rightarrow FA$$
$$D \rightarrow C$$
$$F \rightarrow B$$

a) Can there be a key that does not contain D? Explain.
b) Is the schema in BCNF? Explain.
c) Use one cycle of BCNF algorithm to decompose R into two sub-relations. Are the sub-relations in BCNF?
d) Show that decomposition is lossless
e) Is your decomposition dependency preserving? Explain.

Q5. Write short notes on the following:

a) Minimal Cover   [2] [CO2]
b) Derived attributes   [2] [CO1]
c) Referential Integrity   [2] [CO1]
d) Mapping Cardinality   [2] [CO2]
e) Indexing   [2] [CO3]

END

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Attempt any FIVE questions. All questions carry equal marks. Assume suitable missing data, if any.

Question 1. Discuss the concept of Reactive change and Proactive change. Also, explain the Michael Beer Articulation of change. (10 Marks)   CO-4

Question 2. According to the categorization of BPI, BPR and BT, how will you consider the UBER model? Justify your answer. (10 Marks)   CO-2,3

Question 3. Explain the various similarities and differences in the different BPR methodologies. (10 Marks)   CO-1,2

Question 4. With a suitable example and representation, describe the concept of Value Stream Mapping. Also, explain the concept of first time quality. (10 Marks)   CO-1,3

Question 5. What was ITC's motivation for creating the eChoupal? (10 Marks)   CO-1,2

Question 6. Explain the various stages of Individual level and Organizational level Change. (10 Marks)   CO-4

MBA (Executive) 3 rd Semester 2022-24 Batch

END TERM EXAMINATION   November - 2022

Course Code - EMK 07   Course Title - ConsumerBehaviour

Time: 3hrs   Max. Marks: 50 Marks

Note: Attempt any 5 questions

Q1. Explain how the product manager of a breakfast cereal change consumer attitudes towards the company's brand by (a) changing beliefs about the brand, (b) changing beliefs about competing brands, (c) changing the relative evaluation of attributes and (d) adding an attribute.   [10 Marks] [CO 4]

Q2. "Consumer Behaviour incorporates several Major Aspects of Disciplines such as Sociology, Psychology, Anthropology, and Economics." Elucidate.[10 Marks] [CO 1]

Q3. Assume that you are the marketing manager of a company that is into the manufacture of cakes and biscuits. What are the measures that you would undertake to ensure the perceptual selectivity of your brand in a store?   [10 Marks] [CO 3]

Q4. Describe two situations in which you have served as or sought information from an opinion leader. Do you think that opinion leader is a more credible source of product information than an advertisement? State reasons to support your answer. [10 Marks] [CO 2]

Q5. Discuss the statement "Consumers' needs and goals constantly change". Apply the concepts of needs and goals to the introduction of a new program by your university. [10 Marks] [CO 2, 3]

Q6. How do consumers reduce post-purchase dissonance? How can marketers provide positive reinforcement to consumers after the purchase to reduce dissonance? [10 Marks] [CO 4]

Q7. Write Short notes on *(Any Two)*   [5x2 = 10 Marks] [CO 1]
    a) Tri-component Attitude Model
    b) Buyers' Black Box
    c) Self-Concept

III SEMESTER

EMBA

END TERM EXAMINATION

Nov-2022

EMK-09

Digital Marketing

Time: 3:00 Hours

Max. Marks: 50

Note: Answer any 5 questions
    Assume suitable missing data, if any

Q1- Why is LinkedIn advertising an important channel in B2B marketing? Elaborate the steps for setting up a LinkedIn sponsored content ads. [10] [CO 1,2]

Q2- What is the importance of Google Analytics? What are the different reports that you can generate in it? [10] [CO 1,2]

Q3- Design and elaborate the digital marketing funnel [10] [CO 2,3]

Q4- How websites form the centre of all our digital marketing activities. Give illustration to show its connection with outbound advertising and analytics. [10] [CO 3,4]

Q5- What are the three components of a marketing email. Elaborate by creating an email design. [10] [CO 3,4]

Q6- What is SEO? How do search engines work? Elaborate by listing the three key steps. [10] [CO 3,4]

Q7- Answer the following MCQ questions [10] [CO 3,4]

(i) Out of the following, what is not related to the email marketing?
a) Open rate

b) Subject line
c) Call to action button
d) Keyword research

(ii) For website creation we generally do not use which of the following coding language?
a) HTML
b) CSS
c) Javascript
d) C++

(iii) By remarketing we mean:
a) Showing our ads to the past website visitors
b) Showing our ads to visitors of last 5 days
c) Doing back to back email campaigns
d) Reworking on the marketing plan

(iv) Google analytics is a tool to access? Select the most relevant statement
a) Tag management on the website
b) Website traffic and conversions
c) Google's advertising performance analysis
(d) SEO analysis

(v) The primary objective of doing SEO for your website is?
a) Enhancing UX/ UI of the website
b) To show your ads at the top of the Google's page
c) To organically rank your website page/s at the highest position from the top on a Search engine's result page (SERP)
(d) None of the above

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Delhi Technological University
Delhi School of Management
III SEMESTER
Executive - MBA

End Term Examination   26-November-2022
EIT-07/EKTM-10   E-Governance
Time: 03:00 Hours   M. M. 50

Instructions: All Questions are Compulsory

Q-1 Explain e-Governance, how this is different from Corporate-Governance and IT-Governance?   [3][CO1]

Q-2 Define transparency and equitable in the context of e-Governance.   [3][CO1]

Q-3 What is an e-Governance Model & various types of e-Governance Models. Describe broadcasting/wider dissemination model of e-Governance with an suitable example. [5][CO2]

Q-4 What is the Balance Score Card approach and how impact assessment of e-Governance projects can be measured? Explain with example.   [5][CO2]

Q-5 What is the Capacity Building scheme Government of India in the context of e-Governance in India?   [4][CO2]

Q-6 What is the Enterprise Architecture Framework in the context of e-Governance projects how this framework is applied in Indian e-Governance initiative.   [7][CO4]

Q-7 What are the challenges in executing successful e-Governance projects in India. Explain with any e-Governance project of your choice.   [8][CO4]

Q-8 What is the joined-up Government? Explain with suitable example.   [5][CO3]

Q-9 Select any one e-Governance Project (MCA-21/GSTN/Passport Seva/UIDAI) of your choice, discuss from the perspective of Strategy of its execution, role of leadership, business model of delivery, selection of technology & its impact on the citizens.   [10][CO4]

Note: Attempt <u>five</u> questions in all. Assume suitable missing data, if any. Use of calculator is allowed.

5. A retail database has 6 transactions as shown below.

TID	Items
1	Cheese, Bread, Fruit Pulp
2	Bread, Fruit Pulp , Gur
3	Bread, Gur, Onion
4	Cheese, Bread, Gur
5	Cheese, Bread, Fruit Pulp, Onion
6	Cheese, Bread, Fruit Pulp, Gur, Onion

TID: Transaction ID

Use Apriori method to find all the frequent patterns. Show all intermediate steps to illustrate pruning based eliminations (Assume *minsup =60 % i.e. 3.6*).   **10 Marks (CO3)**

6. Write short notes on any two of the following:

5X2 =10 Marks (CO1,CO2,CO3)

i. Significance of data pre-processing stage in a business analytics project and the key tasks involved
ii. Logistic Regression
iii. Data quality related issues which are generally faced in an analytics project requiring data from multiple sources
iv. Challenges likely to be handled while building a model for forecasting wheat production in India (or choose any other context)

1. You are required to write True/False, choose correct option(s) or fill in the blanks. Do any 10 parts. Each of part is of 1 mark.

10 Marks (CO1,CO2, CO3)

i. Given that Covariance (X,Y) = 5 and Covariance(P,Q) = 10. This implies that association between P and Q is twice the association between X and Y (True/False).
ii. The range of Karl Pearson correlation coefficient is --- to ---.
iii. Multi-collinearity in a regression model improves the regression model. (True/False)
iv. If an item set is frequent, then all of its subsets must also be frequent. (True/False)
v. The clusters should be so formed that the objects within a cluster are heterogeneous (True/False).
vi. Big Data comprise only structured data (True/False)
vii. A model has always only controllable variables as inputs. (True/False)
viii. Cluster algorithms are ------------------- (supervised or unsupervised) learning algorithms.
ix. In the context of Big Data, the 3 Vs stand for ---

x. If in a data set with 250 positives, a logistic regression model classifies 200 positives correctly, the specificity is: (a) 0.8 (b) 0.2 (c) 1.25 (d) can't say.

xi. In SQL, CREATE TABLE is part of (a) Data Definition Language (b) Data Control Language (c) Data Manipulation Language

xii. dataframe object in R can have data elements of mixed data types (TRUE/FALSE)

2. Assume that you are appointed as a Business Analyst by a service organization (imagine any organization of your choice). The organization is facing a serious issue of customer dissatisfaction due to issues such as inefficient complaint lodging platform, service delays, billing related errors, etc. You have been asked to develop a plan to improve relationship with customers through effective support.

[i] What shall be your approach to develop the plan?

[ii] What are the different data items which you shall be requiring for this task. How will you get these data (i.e. sources)? Categorize the data into various attribute types.

5X2 =10 Marks (CO1)

3. The following table shows distance from home to Office and Performance scores of 8 employees of an organization. Treat first 5 records as training dataset and remaining 3 as validation dataset. Fit an appropriate simple linear regression using first 5 records (columns) pertaining to first 5 employees. Apply the fitted model by suitably using data in the next 3 records (columns) to compute Root Mean Square Error. **10 Marks (CO3)**

Employee Code	1	2	3	4	5	6	7	8
Distance (KM)	2	1	5	10	20	25	10	7
Performance	85	95	70	40	20	20	38	65

4. [i] An Executive MBA student randomly sampled 4 recent pass out MBA students with Finance, HR and Marketing as Electives and asked about number of job offers. The data collected is presented as follows:

Finance	HR	Marketing
3	1	8
1	5	5
4	3	4
1	4	6

Electives

Can this be concluded at 5% level of significance that there are differences in the number of job offers between the three MBA electives. Formulate Null and Alternate hypothesis; Prepare ANOVA Table. [$F(.05, 2, 9) = 5.71$; $F(.05, 2, 8) = 6.06$]
7 Marks (CO3)

[ii] An online store sells products under 8 categories labelled: A,B,C,D,E,F,G,H. The past purchase details of 4 customers are given below where 1 indicates purchase and 0 indicates no purchase. Use Jaccard coefficient to find customer who is closest to customer C_1. **3 Marks (CO1)**

Customer	Categories							
	A	B	C	D	E	F	G	H
C_1	1	0	0	1	1	0	1	1
C_2	1	0	1	1	1	1	0	0
C_3	0	1	1	0	0	0	1	1
C_4	1	0	0	1	1	0	0	0

END TERM EXAMINATION   **Nov-Dec-2022**
COURSE CODE: MGT-32 (Back Paper)
COURSE TITLE: Corporate Governance
Max. Marks: 40

Time: 3 Hours
Note: Attempt any five questions.
All questions carry equal marks (8 Marks Each).
Assume suitable missing data, if any.

Q1. How far do you agree with the statement: The business of a business is to earn Profit.

Q2. Discuss the concept of Corporate Governance. Explain the various measures of it.

Q3. Explain the Archie Carroll Model.

Q4. With the help of new Companies Act, elucidate the concept of Corporate Social Responsibility.

Q5. Discuss how Indian companies are managing the challenge of Morals and Ethics?

Q6. Write short notes on the following (Any two) (4 Marks Each)

A. Thomas Donaldson Ethical Algorithm
B. Subsistence level
C. Lobbying

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THIRD SEMESTER (MBA)

End Sem Examination   Nov-Dec 2022
  MBA-203 Corporate Governance and Social Responsibilit
Time: 3 Hours   Max. Marks: 50

> Attempt any **FIVE** questions. All questions carry equal
> marks. Assume suitable missing data, if any.

Question 1. Discuss the concept of Fortune at the Bottom of the Pyramid using a case from India. (10 Marks)
                                    CO-1,3

Question 2. Assess the circumstances under which Satyam's fraud was exposed. What do you think were the reasons for the fraud? (10 Marks)   CO-2,4,5,6

Question 3. Elucidate the impact of Corporate Social Responsibility on the various Stakeholders with suitable examples. (10 Marks)   CO-3,5

Question 4. Explain the concept of Independent Directors. How they are different from Executive Directors. (10 Marks)
                                    CO-2,5

Question 5. "The Social Responsibility of Business is to Maximize Profits" Milton Friedman. Evaluate the statement with justification. (10 Marks)   CO-1,3

Question 6. In an effort to properly position the Indian economy for the remainder of the century, India has replaced its fifty-seven-year old Companies Act of 1956 with the new Companies Act, 2013. What are the key changes introduced in the new Act. (10 Marks)   CO-2,5,6

Total no. of Pages:1 — 27 — Roll no.............

_____SEMESTER B.Tech./B.Des./BBA/BAE/M.Sc./M.Des./M.Tech./MBA/Ph.
D/ B.Tech. [Eve]

ENDTERM EXAMINATION   Nov/Dec-2022

MBAAN 217:Time Series Analysis

Time: 03:00Hours   Max.Marks:50

Note :All questions carry equal marks. Choose any 5 out of 6.
Assume suitable missing data, if any.
Calculator is allowed.

Q.1 Calculate the 4-yearly moving average of the following data relating to sales in a departmental store

Year	2000	2001	2002	2003	2004	2005	2006	2007
Sales (in crores of Rs.)	960	976	974	996	1024	1040	1688	1128

[10][CO#2]

Q.2 Explain what is meant by seasonal fluctuations of a time series. Differentiate between corelation, auto-corelation and partial auto-corelation.   [10][CO#3]

Q.3 Explain clearly the steps involved in Box-Jenkins approach to forecasting.   [10][CO#1]

Q.4 Describe the component of time series. What is stationarity, random walk and noise?   [10][CO#1]

Q.5 With example, discuss and differentiate between machine learning and statistical techniques in the context of time series analysis.
[10][CO#2]

Q.6 Explain the terms related to time series
   a) adfuller
   b) auto_arima
   c) RMSE   [10][CO#3]

Time: 03:00 Hours   Max. Marks: 50

> **Note :** Assume suitable missing data, if any.
> Use of non-programmable scientific calculator is allowed.

Q.1 An organization was investigating relocating its manufacturing plant to one of three possible cities. The following statements shows the COO's judgements regarding the desirability for the three cities:

- City 2 is five times better than City 1
- City 3 is three times preferred compared to City 2
- City 3 is $\frac{1}{7}$ preferred in comparison to City 1

(n=3, RI = 0.52 ; n=4, RI = 0.9; n=5, RI = 1.11; n=6, RI = 1.25)

a) Setup the pairwise comparison matrix for the problem
b) Determine the priorities for the three cities
c) Is the COO consistent in terms of the judgements provided? Explain.   **[2+5+3=10] [CO#1,2,4]**

Q.2 XYZ Corp. has the master production plan shown below,

Period (weeks)	1	2	3	4	5	6	7	8	9	10	11	12
Gross requirements		35		40		10			25	10		45

Lead time = 1 period; setup costs = $200; holding cost = $10 per week; stockout cost = $10 per week. Develop an ordering plan and evaluate which plan has the lowest cost among following lot size techniques, a) Lot-for-lot; b) EOQ; c) POQ   **[6] [CO#3]**

Q.3 What do you understand by sharing risk and reward in the supply chain? Elaborate on various strategies to achieve this for a wholesaler-retailer pair. [4] [CO#1]

ATTEMPT ANY THREE OF THE FOLLOWING

Q.4 ABC is a disk drive manufacturer in need of an aggregate plan for July through December. The company has gathered the following data,

Costs	
Holding cost	Rs 8/disk/month
Subcontracting	Rs 80/disk
Regular-time labor	Rs 12/hour
Overtime labor	Rs 18/hour for hours above 8 hour/worker/ day
Hiring cost	Rs 40/worker
Layoff cost	Rs 80/worker

Demand*	
Jul	400
Aug	500
Sept	550
Oct	700
Nov	800
Dec	700

*No costs are incurred for unmet demand, but unmet demand (backorders) must be handled in the following period. If half or more of a worker is needed, round up.

Other Data	
Current workforce (June)	8 people
Labour-hours/disk	4 hours
Workdays / month	20 days
Beginning inventory	150 disks#
No requirement for ending inventory	0 disks

#There is no holding cost for June

What the following strategies cost? [5+5=10] [CO#1,2,3]

a) Vary the workforce so that production meets demand. XYZ has eight workers on board in June

b) Vary overtime only and use a constant workforce of eight.

Q.5 i) Explain the framework of strategic sourcing. Why has sourcing assumed importance in today's organizations? [5] [CO#2]

ii) What are various components of supply chain cost and why it is imperative to know them? [5] [CO#2,3]

Q.6 i) JIT works better as an idea than in real-life. Evaluate. [5] [CO#2]

ii) What transportation challenges does online grocer Big Basket face? Evaluate transportation costs and strategy at online grocers vis-à-vis supermarket chains. [5] [CO#4]

Q.7 i) Elaborate on the importance /interface of logistics with different organizational functions. [5] [CO#4]

ii) List any three supply chain drivers and explain their importance using suitable examples. [5] [CO#4]

--END--

III SEMESTER

END TERM EXAMINATION   **NOVEMBER 2022**

COURSE CODE: EMBA 301   **COURSE TITLE: STRATEGIC MANAGEMENT**

TIME: 3 Hours   **Max. Marks: 50**

> NOTE: Answer any 5 Questions.
>
> All Questions carry equal marks
>
> Assume suitable missing data if any

Question 1: "The 800-pound gorilla dominated at a time when companies needed and used more capital, when the value chain could be profit maximized through vertical integration. To run this kind of organization, leaders had to be focus on being big enough to enable scale — because that's where the profits once were. Once an organization got big, it took a lot to displace it. But the social era demands something more of our organizations. Something that is qualitatively different. The social era rewards the gazelles — the ones that are fast, fluid, and flexible".

POSER. To what extent you agree or disagree with the narrative mentioned. Has the narrative of competitive advantage has changed over time? To what extent and for which industries, Porter's model holds relevance in this evolving landscape? (MM 10, Max. word limit 200 words)

CASE STUDY (MM 20)

At a recent symposium of the International Air Transport Association, McKinsey's Alex Dichter delved into airlines' tangled finances. Return on invested capital (ROIC) is increasingly becoming the benchmark metric for airline financial performance. On the face of it, this is not surprising: This is, after all, a business of capital deployment: airlines are landlords of aluminum (and now graphite) real estate. So measuring carriers against traditional profit-and-loss measures such as EBITDA or, worse, EBITDAR—earnings before interest, taxes, depreciation, amortization, and restructuring or rent costs—is on some level like a landlord measuring his profit before the cost of his buildings.

So we need to think about capital. Unfortunately, as we all know, the industry doesn't do too well on this measure. If we look at the major industries, airlines rank near the top on revenue growth but at the absolute bottom in terms of ROIC. If we ranked all companies in the world in terms of ROIC, I don't think an airline would show up in the top 100. This is not new. The airline industry in aggregate has not earned ROIC greater than its cost of capital in any year in its history, until 2015. But one year hardly signals a trend. Why is this the case, and how can airlines do better?

The traditional argument points to industry structure as the culprit. Long lead times for new capacity, low barriers to entry, high barriers to exit, perishable inventory, high elasticity, high supplier power, and a government regulatory framework that doesn't always help carriers, all

contribute to cutthroat pricing, excess capacity, and value transfer to suppliers over time. Investors should probably just pack their bags and go home.

The industry value-chain analysis McKinsey has done with the International Air Transport Association over the years reinforces this argument: deep losses, not made up for elsewhere in the value chain. The industry is doomed. But, despite its poor performance, the industry has continued this way for over 70 years. And it continues to both attract new capital and generate breakout winners, who, though small in number, seem to be breaking the pattern. Given the poor history, why do people continue to invest, and what can we learn from the winners? Either this is the longest-lasting Ponzi scheme in history, or there's something going on beneath the surface. We can approach these questions by examining two slightly opposing lines of argument: Between ROIC and a hard place:

ROIC is the right measure for industry performance, and the few airlines that have made positive returns on capital over time suggest a path forward for the rest of the industry.

There's something not right about how we're measuring capital and cost of capital. Despite appearances, we're doing better than we think.

Let's start with the first argument and look at the airlines that seem to be outperforming the pack.

A clear path to better ROIC

There are 13 airlines that have earned their cost of capital over the ten years to 2015 (Exhibit 1). This is an arbitrary time frame, but let's take a look and see if we can find patterns. First, it's clear that there are outliers. Second, there are a few brand-new airlines. It's worth noting that this is one of the few capital-intensive industries in the world where being new is an advantage. The accounting standards for everything from aircraft maintenance to labor costs favor new entrants. If the true life-cycle costs of running an airline at maturity were applied to these new airlines, they would not look so good.

If we reflect on this list and expand it to perhaps another ten or so airlines that are generally profitable, we see some common attributes. Not all airlines share all these attributes, but at least a few are at work in every case:

Privileged sources of revenue. It goes without saying that the best way to make money in any industry is to have a unique offer of some kind. These airlines have done a pretty good job. If we look at a simple measure of the number of origination and destination pairs in which these airlines have a significantly more attractive schedule than the rest of the industry, we see a clear pattern. These airlines are using a combination of their hubs, their fleet, and their geography to create markets that no one else can serve quite as well. A high score on the quality of service index equals a better product. Passengers value this and are willing to pay for it.

Exhibit 1

Few airlines earned their cost of capital over the past years.

Cumulative economic profit 2005–15,[1] $ million

		Average ROIC,[2] %
Ryanair	3,797	14.1
EasyJet	1,535	12.5
Emirates	1,117	9.1
Alaska Airlines	1,109	8.1
Copa Airlines	959	12.2
Spirit Airlines[3]	739	11.4
WestJet	716	8.3
Allegiant	599	23.9
Vueling Airlines	468	20.3
Wizz Air[4]	434	7.3
Aeroflot	391	11.9
Hawaiian Airlines	368	8.7
Aegean Airlines	229	10.2

[1]Economic profit defined as difference between return on invested capital and weighted average cost of capital multiplied by invested capital.
[2]Return on invested capital. Simple average return on invested capital for the years 2005–15. After-tax ROIC, excluding goodwill and adjusted for leases.
[3]Data for 2010–15 only.
[4]Estimates.

McKinsey&Company | Source: Company reports; S&P Capital IO

Cost advantage to peers. Again, no big surprises. In a commoditized industry, cost matters. But these airlines recognize that you don't need to have the lowest cost in the industry. You just need a cost advantage to your relevant peer set. These carriers achieve an advantage in various ways. Some use regulatory frameworks that make labor markets more efficient. Others have embraced lean management, driving cost out of every single detail. Some have adopted driver-based planning, a construct that builds a budget from commitments the business makes around physical drivers of productivity and cost, and then centers performance reviews on those same drivers.
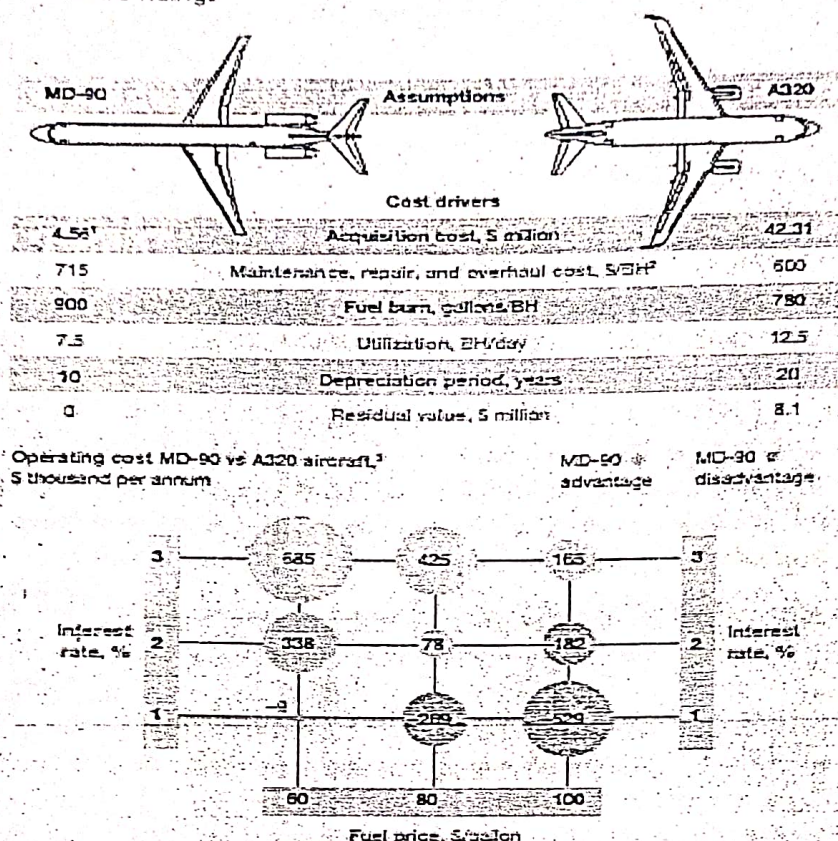
A brand that people care about in some way. Years ago, McKinsey put researchers in a large terminal building that served multiple airlines. As passengers entered, we stopped them for a series of questions. One of the questions was "What airline are you flying today?" Twenty percent of passengers could not answer the question without checking travel documents. It's pretty hard to differentiate when your passengers don't care whether or not you exist. Many of the most profitable airlines have invested heavily in brand presence. Alaska Airlines has invested in its products, service, and reputation. Emirates has invested in both product and promotion. In some markets, easyJet is almost a verb. And even Ryanair, with its reputation for unpredictable customer service, can count on one thing: people know who they are and what they stand for. This results in more direct distribution, greater control of the customer relationship, greater ancillary sales and, simply, less competition.

Strong organizational health. McKinsey has a research tool that measures nine attributes of organizational health (the way in which an organization functions), based on the answers given by managers and employees to a long questionnaire. The outcome of this tool, which we call the "Organizational Health Index," correlates very strongly to performance. I've been in the halls of many higher-performing airlines, and I can tell you that they feel distinct. The management team is aligned; everyone knows the role they play; people are accountable. At these airlines, people spend time with their teams, driving performance, and not in meetings, debating causes.

Lower capital needs. At a few of these carriers, it's worth noting that less capital may play a role. Delta is now famous for its aging fleet. It may have a point. Its older aircraft allow it to fly less—fitting capacity to demand and driving better schedules for customers and, therefore, better-quality revenue. Allegiant, the highest-ROIC airline in the group, uses a very old fleet. As you can see from the analysis, the trade-off between older aircraft and younger ones diminishes as fuel prices drop and interest rates rise (Exhibit 2).

Exhibit 2

An older fleet pays off when fuel prices are low and interest rates are rising.

MD-90	Assumptions	A320
	Cost drivers	
4.5	Acquisition cost, $ million	42.31
715	Maintenance, repair, and overhaul cost, $/BH	600
900	Fuel burn, gallons/BH	780
7.5	Utilization, BH/day	12.5
10	Depreciation period, years	20
0	Residual value, $ million	8.1

Operating cost MD-90 vs A320 aircraft, $ thousand per annum — MD-90 advantage / MD-90 disadvantage

3	585	425	165	3
Interest rate, % 2	338	78	182	Interest rate, % 2
1		269	529	1

Fuel price, $/gallon: 60 — 80 — 100

$1.08 million acquisition (1999 vintage—latest year produced) and $2.50 million assumed refurbishment.
Block hour.
Considers only fuel expense; maintenance, repair, and overhaul cost; and ownership cost (depreciation, interest cost assuming full debt financing) in 1st year.

McKinsey & Company | Source: Aircraft Value Analysis Company; Airline Monitor

Emphasis on short haul. Last, we note that there are a number of shorter-haul airlines on this list. While this is a crude metric, the bottom line is that under a wide range of assumptions, a new 787 employed in long-haul service generates less revenue per dollar of capital employed than does its short-haul counterpart. Sure, the margins also vary, but the difference between long- and short-haul is stark.

So while some of these carriers enjoy geographic advantages, and some enjoy government constructs that really help them, it's useful to at least reflect on what the industry might do differently. At bare minimum, the list above suggests that we should possibly consider

different key performance indicators (KPIs) than those that the industry now uses. Load factor, yield, revenue per available seat-kilometer, and cost per available seat-kilometer are outcomes. KPIs like percentage of privileged passengers, net promoter score, on-time performance, and, yes, gate agents per departure suggest the ingredients that lead to performance. These metrics are also very helpful in the context of managers' performance reviews. This is an industry in which, if a functional leader doesn't make budget, it's very easy to point to external factors: fuel prices, volcanoes, wars, terrorist attacks, strikes. But, if the head of airports has committed to reduce gate staffing from 2.5 agents per departure to 1.5, then he or she ought to be held to that commitment under any circumstances.

Maybe we're doing better than we think? Let's shift to the second, slightly contradictory argument. We've seen that ROIC as we're currently measuring it is an elusive goal. And while we've seen some patterns among those that do well, not all airlines have the freedom to pull all of these levers. So is ROIC the right measure? Are we measuring it correctly? Let me present at least a few provocative challenges. At the core of those challenges is the question of whether aircraft are really capital.

The cash-on-cash business case for new, high-capex aircraft (versus the older aircraft they replace) is generally quite positive. Put differently, the operating cash flow covers the lease or interest payments plus accounting depreciation. While carriers may not cover their cost of capital in financial terms, the business tends, at least on paper, to pay for its capital. That said, the fully costed financial business case, including disposal costs, residual value risk, and so on, is overwhelmingly negative. In a sense, then, airlines "pay for" their capital but don't "earn" their cost of capital.

There don't appear to be limits on external sources of aircraft capital. We tend to think of capital as a scarce resource and something that airlines need to carefully direct. Many airlines have run out of growth opportunities. But few solvent airlines have ever been told "no" by a lessor or a banker.

Do carriers ever really make a commitment on aircraft? Unlike factories and R&D, aircraft are portable and can be repossessed. The Cape Town protocols make that even more the case than ever.

Is weighted average cost of capital (WACC) overstated? The implied value of airline equity is zero, and aircraft-backed debt is cheap. So while a WACC of 8 to 9 percent might be appropriate for an airline building a skyscraper, is it really the right number to be used when buying an aircraft?

Last, when airlines capitalize leases, they are incorporating the profit of the lessor into the capital charge. Of course, the lessor is taking on residual value risk, and thus doing something for that capital. However, the fact that carriers no longer have the risk suggests a lower capital charge, not a higher one.

On the surface at least, there's a case to be made either that aircraft aren't the same kind of capital as traditional big capex investments, or that the industry's WACC is widely overstated. Either would suggest that the industry is doing better than we think. In fact, if we made a list of the airlines with positive free cash flow over the last ten years, it would be much longer than the list we looked at earlier. All that said, ROIC has to matter somewhere, to someone. While an airline's decision to purchase an airplane can be undone—the aircraft

can be sold—the manufacturer can't unbuild the aircraft. So if airlines are doing better than we think, does that mean that someone else is doing worse? Perhaps not now, but this might—at some point—have to be the case. Consider the earlier analogy of a Ponzi scheme. If we look at the airline industry flow of funds over the past 50 years, we see a cycle in which new aircraft-backed debt replaces old debt. The operating efficiencies of the new aircraft helped to create additional cash flow that made it easier to pay off the debt. The result was, yes, positive cash returns—but also mounting debt, with no sign of a cyclical return. Could it be that the airlines in their WACC calculations and measurements of ROIC are overstating the risk and opportunity cost of buying aircraft, but that the banks and lessors are understating the risk and opportunity cost of lending against them?

I've made two slightly contradictory arguments about airline ROIC. In the first, I accept that ROIC is both properly measured and an appropriate metric for airline financial performance, and assert that the industry has something to learn from the few airlines that do well on this metric. In the second, in the spirit of being provocative, I wonder whether we are measuring ROIC appropriately and whether, in fact, the industry is doing better than we think. We can leave the second argument for financial academics to ponder. If any of these ideas are useful and pragmatic, they are those in the first argument. Measurements aside, I'd argue that airlines have nothing to lose by focusing on deliberate improvements in privileged sources of revenue, cost position versus peers, brand strength, and organizational health. It's a winning recipe against any set of metrics.

POSERS (10X2=20). Restrict your answer within 150 words for each Question)

2. What does the case writer means to say by the word, 'Airline Tangled Finances'. Why it is inappropriate to judge Airlines on the common prevailing measures of firm performance? What is your reaction to the two aspects of ROIC as suggested by the writer? Do you endorse his view? Provide suitable justification?

3. Case provides an insight into the outliners, which capabilities/competencies do you identify are contributing to differentiation, and therefore making firms successful?

Q4. The major forces shaping the business environment of the fixed-line telecom industry are technology and government policy. The industry has been impacted by fiber-optics (greatly increasing transmission capacity), new modes of telecommunication (wireless and internet telephony), deregulation, and privatization. Using the five forces of competition framework, show how each of these developments has influenced competition in the fixed-line telecom industry. (MM 10).

Q5. What do you understand by the term architectural advantage? How Google has created architectural advantage? (MM 10)

Q6. Why do we use Porter's 5F' Model? When is an industry unattractive? What variables affect the forces in the model? (MM 10).

Q7. Why CORE competence is a better rationale for existence of a Corporate, why it has advantage over the SBU construct? (MM 10)

III SEMESTER

EMBA

END TERM EXAMINATION   Nov 2022

COURSE CODE EMBA 302

COURSE TITLE INTERNATIONAL BUSINESS MANAGEMENT

TIME 3 HRS   MAX MARKS 50

NOTE:

- ANSWER ANY 5 QUESTIONS
- ALL QUESTIONS CARRY EQUAL MARKS
- ASSUME MISSING DATA, IF ANY

1. Examine the importance and challenges of International Business?

    [10] [CO1]

2. Discuss the macroeconomics policy goals in an open economy and how it is related to international monetary system?

    [10][CO5]

3. Describe therelevance of different Methods of Technology transfer.

    [10] [CO3]

4. Critically analyze CAGE (Cultural, Administrative, Geographic, and economic) framework.
    [10] [CO2]

5. Explain the different kinds of economic integration with the help of an example.   [10] [CO4]

6. Differentiate between Foreign Direct Investment and Foreign Portfolio Investment.[10] [CO1]

7. Explain the role of IMF (International Monetary Fund) in an economy and how it has impacted India's growth.[10] [CO5]

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Delhi Technological University

Delhi School of Management

Semester III (2022-23)

End Term Examination   Nov-2022

Course Code: EMBA-303   Course Title: I T Management

Time: 3:00 Hours   Maximum Marks: 50

Note: Attempt any 5 Questions.
                   All Questions carry equal marks (10 marks each).
                   Assume suitable missing data, if any.
                   Write your answer precisely.

1.	[a] Assume your company has implemented a BYOD solution. Does your company have to encrypt all data that is accessible on employees' own devices? Justify your response with an example.	[CO#4] [5]
	[b] Calculate the Expected Loss given the probability of unauthorized access to bank account is 0.02% and subsequently probability to make unauthorized instantaneous transfer of INR 50,00,00,000/- to unscrupulous bank account is 1.12%.	[5]
2.	Consider the following narration to answer Question#2. You may mention your assumptions if any, to justify your answers. "Each product has a description, a price and a supplier. Suppliers have addresses, phone numbers, and names. Each address is made up of a street address, a city, and a pin code."	[CO#1]
	[a] List Entities and Attributes	[4]
	[b] Draw Conceptual Data Model	[3]
	[c] Draw Logical Data Model	[3]
3.	[a] Briefly discuss merits and demerits of cloud computing.	[5] [CO#4]
	[b] What is Hybrid Cloud? Discuss a suitable business case to implement Hybrid Cloud.	[5]
4.	[a] Discuss principles of Business Continuity and DR Operations with the suitable example.	[CO#4] [6]
	[b] Describe the term RTO and RPO with an example.	[4]
5.	[a] Briefly describe core steps in Business Process Management with an example.	[8] [CO#3]
	[b] List any 2 Open-source BPM tools	[2]

6.	Briefly describe the following terms with an example each.	[CO#2]
	[a] OLTP	[2]
	[b] OLAP	[2]
	[c] CLTV	[2]
	[d] PII	[2]
	[e] Social CRM	[2]
7.	You are in the vendor selection committee. Your company is looking for enterprise-wide solution integrating primary value chain; Finance and Purchase Departments. Briefly describe any 5 important criteria that you would like the committee to consider while evaluating ERP product and implementation partner for your company.	[CO#1] [10]