

1M201

Roll No. _____

Total No. of Pages: **3**

1M201

M.B.A. I - Sem. (Main / Back) Exam., - 2023

M – 101 Fundamentals of Management

Time: 3 Hours

Maximum Marks: 70

Instructions to Candidates:

- (i) *The question paper is divided in three parts.*
- (ii) *Part A contains 10 questions which are compulsory. Part B contains eight questions out of which five are to be attempted. Part C contains one question which is compulsory.*

1. NIL

2. NIL

PART – A

[10×2=20]

All questions are compulsory

- Q.1 Asses the limitation of bureaucratic management in today's context.
- Q.2 What are the different skills required for different levels of management?
- Q.3 Discuss the contributions of Peter Drucker in the field of management.
- Q.4 "Decision making is the primary task of the management." Discuss this statement and write the steps of decision making.
- Q.5 Define Organizing. Also, differentiate between Centralization and Decentralization.
- Q.6 What is job Analysis? Write any two importance of staffing.
- Q.7 "A good leader is not necessarily a good Manager." Discuss this statement and compare leadership with management.
- Q.8 "Control is a fundamental function that ensures work accomplishment according to plans." Analyze this statement and outline various step in involved in control process.

Q.9 Discuss the contribution of Ratan Tata in making India a global economy.

Q.10 Discuss the principles of effective directing.

PART – B

[5×6=30]

Attempt any five questions

Q.1 What was the contribution of Elton Mayo and his Hawthorne experiment to modern management? What were the Elton Mayo's main conclusions from the Hawthorne studies?

Q.2 What are the major contributions of Herbert Simon to the decision making theory?

Q.3 "Planning is an intellectual process, the conscious determination of course of action, the basis of decisions on purposes, facts and estimates", discuss the statement and identify the steps involved in planning process.

Q.4 "Structure of an organization should be tailor made, search for a typical structure is vain." Comment on this statements and discuss various types of organization structure.

Q.5 Why is recruitment regarded as a positive process and selection as a negative process? Discuss the major tests that are used in selection. What are the benefits and problems in using selection tests?

Q.6 What does the directing function of management involve? Discuss the importance of directing in management process. What are the four elements of Directing?

Q.7 What do you mean by coordination? Discuss the various features and techniques of coordination.

Q.8 Write an essay on Mr. Narayan Murthy's contribution to managerial world. Also, highlight his leadership style.

PART – C

[20]

(Compulsory)

Q.1 Jai (who works for XYZ Ltd.) and Vina (who works for PLM Ltd.), are employed as Production Managers. Last night, both of them attended a staff development meeting organized by a Production Management Institute (a professional body), of which they are members. During the tea – break, Jai and Vina discussed the various leadership styles that they were following in their respective organizations. Jai told Vina that he had a friendly personality and was optimistic that he will get on well with the workers in the factory. He went on to say that a total of fifty workers are employed, with 40 of them having been employed with the business for over 20 years. The others, mostly unskilled, tend to be younger workers who stay for a year or so and then move on, since Jai thinks that they are harder to motivate. Jai is aware that new Health & Safety regulations are due to be implemented and this will require discipline in the workforce. He is thinking of adopting a more autocratic leadership style. Vina told Jai that she was newly appointed to the role and was relatively inexperienced. She pointed out that she manages a team of forty workers, grouped into project teams with highly skilled and experienced staff in each team. Vina mentioned that her predecessor was unpopular with the workforce since he adopted an autocratic style of leadership. At one stage, the Labour Relations Agency was asked to mediate in a dispute regarding management/employee relations. In view of this, she had been thinking of adopting a democratic leadership style.

Questions -

1. Explain the key functions of management within organizations such as XYZ Limited and PLM Limited.
2. Discuss whether or not Jai and Vina should adopt their proposed new leadership styles within their respective organizations.
3. With reference to each organization (XYZ Limited and PLM Limited), discuss the role of management in motivation.

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Total No. of Pages: **3**

1M202

M.B.A. I - Sem. (Main / Back) Exam., - 2023

M – 102 Managerial Economics

Time: 3 Hours

Maximum Marks: 70

Instructions to Candidates:

- (i) *The question paper is divided in three parts.*
- (ii) *Part A contains 10 questions which are compulsory. Part B contains eight questions out of which five are to be attempted. Part C contains one question which is compulsory.*

1. NIL

2. NIL

PART – A

[10×2=20]

All questions are compulsory

- Q.1 “Managerial economics is an integration of economic theory, decision science and business management.”
- Q.2 How does managerial economics relate with other disciplines for propounding its theories?
- Q.3 Discuss the importance of opportunity cost in economics.
- Q.4 Explain the factors influencing the elasticity of supply in the market with an example.
- Q.5 What do you understand by incremental principle?
- Q.6 If the price of milk increases, what do you think will happen to the demand of cornflakes?

- Q.7 Distinguish between short run and long run costs.
- Q.8 Explain in brief Value – Added method of National Income.
- Q.9 What do you understand by business cycle?
- Q.10 Explain the important managerial uses of break – even analysis.

[5×6=30]

PART – B

Attempt any five questions

- Q.1 What changes in Indian economy in recent years do you think are likely to be most important for business? Justify your choices.
- Q.2 What are the factors that cause the demand curve to shift downward? Illustrate graphically.
- Q.3 You are working for Coca Cola as Marketing Head. The company is planning to float a new drink which is white in Colour. What lessons from the concept of elasticity can you draw while fixing the price for this new drink?
- Q.4 Distinguish economies from diseconomies of scale and suggest possible causes of each.
- Q.5 Explain the Law of Variable Proportions with its various stages. What are the basic assumptions behind this law?
- Q.6 Describe graphically the pricing and profit determination under monopoly market.
- Q.7 “There are many difficulties in measuring national income. Yet no country can afford not to measure national income.” Discuss.
- Q.8 Elaborate the concept of ‘Incremental Principle’ and Time perspective in managerial economics.

[1M202]

PART – C
(Compulsory)

[20]

Q.1 Read the case carefully and answer the following questions –

The Indian toy industry is estimated at about US\$ 400 million and shows promising growth prospects with a growing middle class and increasing demand for quality and luxury goods. Cities like Ahmedabad, Hyderabad, Bangalore and Pune have become the most prominent manufacturing hubs, with a mix of big brands and local manufactures. Majority of toys are produced by small, local – level toy makers, about 59 percent of them focus on production of cheap and unbranded toys which appeal to the price – sensitive segment of consumers.

Since 2008, the industry has witnessed a number of foreign brands entering the market, mostly from USA, UK and Germany, with manufacturing units in China. The branded toys segment is not more than 20 – 25 percent of the total market, with players like Simba, Cicco and Mattle. Branded toys have got distributors who cater to retail complexes, whereas local manufacturers have a huge base of wholesalers and distributors and their products are sold in a bigger way rather than their branded counterparts.

Share of domestic toy makers is shrinking gradually, with around 80 percent of the market being served by players from China and Italy. Imports from both countries expanded at a compound annual growth rate of over 30 percent between 2001 and 2012. Spiraling exports have also decimated domestic toy manufactures. According to industry body ASSOCHAM, 40 percent of domestic toy companies had shut down by 2014. A big threat to these manufacturers is the growth of e-commerce, with changing consumer pattern, as customers buying online are more careful about brands and quality, though price is still the major deciding factor in most cases.

Questions –

- (a) Discuss the case with respect to a monopolistically competitive market.
- (b) In your opinion, Are branded toy makers making super normal profit?

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Total No. of Pages: 2

1M203

M.B.A. I - Sem. (Main / Back) Exam., - 2023

M – 103 Operations Management

Time: 3 Hours

Maximum Marks: 70

Instructions to Candidates:

- (i) *The question paper is divided in three parts.*
- (ii) *Part A contains 10 questions which are compulsory. Part B contains eight questions out of which five are to be attempted. Part C contains one question which is compulsory.*

1. NIL

2. NIL

PART – A

[10×2=20]

All questions are compulsory

- Q.1 What is the scope of Operations Management?
- Q.2 What are the objectives of Demand forecasting? Mention any four objectives.
- Q.3 Enlist the phases in Product Design Development.
- Q.4 Elucidate four determinants of effective capacity.
- Q.5 Determine eight factors that affects plant location decision.
- Q.6 Define four ways of proper material handling
- Q.7 What do you mean by 'Aggregate Planning'? Discuss any two techniques of 'Aggregate Planning'.
- Q.8 Define Reorder point and safety stock.
- Q.9 Discuss any two uses of ERP.
- Q.10 What is a bill of material? Mention the parts of a bill of material.

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PART – B**Attempt any five questions**

- Q.1 Discuss the implications of organisation strategy for Operations Management.
- Q.2 Discuss different qualitative and quantitative techniques of demand forecasting.
- Q.3 Discuss different qualitative techniques of location analysis.
- Q.4 What are the different types of facilities layout? Give examples of different industries where these layouts can be used.
- Q.5 Differentiate between long range, intermediate and short range planning giving appropriate examples.
- Q.6 What are the different costs associated with inventory? Why is inventory considered as necessary evil?
- Q.7 Explain degree of standardization and mass customization using appropriate examples.
- Q.8 Write short note on capacity planning.

PART – C

[20]

(Compulsory)

- Q.1 An auto parts supplier sells batteries to car dealers and auto mechanics. The annual demand is approximately equal to 1200 batteries. The supplier pays ₹ 1960 for each battery and estimates that the annual holding costs is 30% of the battery's value. It costs ₹ 1400 to place an order (managerial and clerical costs). The supplier currently orders 100 batteries per month.
- (a) Determine the ordering, holding and total inventory costs for the current order quantity.
- (b) Determine the ECQ.
- (c) How many order will be placed per year using the EOQ.
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Total No. of Pages: 2

1M204

M.B.A. I - Sem. (Main / Back) Exam., - 2023

M – 104 Marketing Management

Time: 3 Hours

Maximum Marks: 70

Instructions to Candidates:

- (i) *The question paper is divided in three parts.*
- (ii) ***Part A** contains **10** questions which are compulsory. **Part B** contains **eight** questions out of which **five** are to be attempted. **Part C** contains **one** question which is compulsory.*

1. NIL

2. NIL

PART – A

[10×2=20]

All questions are compulsory

- Q.1 Explain Marketing Mix.
- Q.2 What is Socio-cultural Environment?
- Q.3 Define Segmentation.
- Q.4 Define Packaging.
- Q.5 Explain consumer buying behaviour.
- Q.6 What do you understand by 'Product Differentiation'?
- Q.7 What is 'Market Penetration Pricing'?
- Q.8 Define 'Retailing'.
- Q.9 What do you understand by 'Public Relations' in marketing communication?
- Q.10 Explain Digital Marketing.

PART – B

[5×6=30]

Attempt any five questions

- Q.1 Distinguish between selling and marketing and also state the features of marketing.
- Q.2 Discuss the steps of marketing planning.
- Q.3 Describe different basis of segmenting consumer markets with examples.
- Q.4 Explain Buying Decision process in detail.
- Q.5 Describe different stages of Product Life cycle with example.
- Q.6 State pricing objectives in brief.
- Q.7 Write short notes on 'Advertising' and 'Sales Promotion'.
- Q.8 Explain 'Rural Marketing' and 'Sustainable Marketing' with suitable examples.

PART – C

[20]

(Compulsory)

- Q.1 Sun Medquip is a medical equipment manufacturing company. It has recently developed an advance BP Instrument having special digital recording technology, which is suitable and required in the hospitals. For deciding marketing strategy for this new product, the CEO of Sun Medquip, Mr. Ajay Sinha called a meeting of the Marketing Heads of different zones. The North Zone Head Mr. L. Pareek suggested that the instrument was sophisticated, therefore personal visits to the hospitals and direct demonstration before the staff members are needed. He also suggested recruitment of additional sales staff for the same. The South Zone Head Mr. Ayanger pointed that cost involved might be too high, so the existing distributors should be used for selling this new product.

Questions -

- (a) In the given case, identify the channel of distribution mentioned. What are the factors influencing the choice of the channel of distribution in this case?
 - (b) Suggest the marketing communication tools, which could be used here and the role they may play.
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Total No. of Pages: **8**

1M205

M.B.A. I - Sem. (Main / Back) Exam., - 2023
M – 105 Information Technology for Managers

Time: 3 Hours

Maximum Marks: 70

Instructions to Candidates:

- (i) *The question paper is divided in three parts.*
- (ii) ***Part A** contains 10 questions which are compulsory. **Part B** contains eight questions out of which five are to be attempted. **Part C** contains one question which is compulsory.*

1. NIL

2. NIL

PART – A

[10×2=20]

All questions are compulsory

- Q.1 Differentiate between Internet, Intranet and Extranet.
- Q.2 What is the significance of Information System in a Business Organization?
- Q.3 What is the significance of Training and Maintenance in SDLC?
- Q.4 What do you understand by Data Warehouse?
- Q.5 What is m-Commerce and what are its benefits?
- Q.6 What is the significance of CRM in an organization?
- Q.7 Write short note on Business Ethics.
- Q.8 What is the impact of internet revolution on business?
- Q.9 Explain Transaction Processing System.
- Q.10 How is e-Business different from e-Commerce?

PART – B

[5×6=30]

Attempt any five questions

- Q.1 How is Cloud Computing accelerating Businesses?
- Q.2 Explain the following information systems –
- (i) Management Information Systems
 - (ii) Decision Support Systems
- Q.3 What is Feasibility Analysis? Explain the various types of Feasibility Analysis.
- Q.4 How does Data Mining and Data Warehouse help in Decision Support System?
- Q.5 What do you understand e-payments? What are the various modes of e-payments?
- Q.6 What do you understand by Supply Chain Management? Elaborate its various components.
- Q.7 Elaborate on Security and Ethical Challenges of Information Technology.
- Q.8 What are the objectives of SDLC? Explain the investigation and documentation phase of SDLC.

PART – C

[20]

(Compulsory)

- Q.1 With the advent of Science and Technology, technological innovations have become a pre-requisite to achieve operational and strategic excellence. Organizations by using state-of-the-art systems are striving for their best to achieve sustainable and long-term competitive advantage. It has become sine qua non to use modern tools for the effective achievement of goals and objectives. Its importance can also be observed from the increased spending on Research & Development in order to pace up with today's dynamic business environment.
- Walmart, founded by Sam Walton in 1962, is the world's largest retailer that employs about 2.1 million associates worldwide, in more than 8,400 stores, including 8, discount stores, 3,100 combination discount and grocery stores. Walmart is serving its customers and members more than 200 million times per week at more than 8,613 retail units under 55 different banners in 15 countries. Walmart has ranked first among retailers in Fortune Magazine's 2010, most admired companies survey with fiscal year 2010 sales of \$405 billion. Sam Walton's belief was to build an empire by providing value to its customers and empowering employees.

also known as associates. The way the Walmart operates is so fascinating and impressive that Jack Welch, CEO of General Electric once said: "Many of our management teams spent time there observing the speed, the bias for action, the utter customer fixation that drives Walmart." The use of high-tech information technology has always been an essential ingredient for Walmart's growth.

Since its inception, it has used the IT systems well enough for the inventory, administrative, customers and suppliers management. Walmart's investment in technology started with the computerized accounting systems and since then the continuous adoption of latest technologies has made Walmart a market leader in the whole retail industry. Walmart developed a well-equipped computerized Point of Sale (PoS) system capable of identifying each unit sold, creation of accurate sales receipt and storing all the information item-by-item for sales analysis and inventory reordering purposes. It helped company to avoid overstocking of merchandize through effective information usage and also assisted them in investing in only those merchandize that were profitable. It has also helped them figure out best selling products and prospective products that customers want.

Analysts say that it is Walmart's point of sale system that has helped them achieve the world's largest market share and revenues in retail industry. Walmart, in 2004, was the first in retail industry to adopt Electronic Radio Frequency Identification (RFID) tags for Inventory Distribution Management. RFID technology, which is still being used, helps them keep track of inventory movement across its supply chain. Walmart was trailing Kmart in 1980's but with the adoption of latest technologies, it has now become the trendsetter in retail industry all over the world. Walmart is currently working on a project to make best out of wireless technology. In near future, they have plans to develop a remote system that would allow customers to just walk into their store and use their own devices (Phones or PDA's) to get whatever they want. i.e. They might go online to their website, while at the store, and find things for themselves or just compare the products' prices etc. Customer service, best shopping environment and experience, one-stop shopping, best value products, customer convenience of online shopping, good customer relations are the blessings that Walmart provides using cutting edge technology. Latest wireless system at their stores, online web-retailing, vast width and hierarchy of product items and stores at multiple remote sites are the

benefits customers of Walmart cherish. Walmart is considered to be a trend setter in retail industry and it's all due to its inclination towards achieving impossible through modern technology. For example, Walmart once tried to develop three experimental stores in McKinney, Aurora and Las Vegas that were equipped with latest technologies or concepts like wind turbines, photovoltaic solar panels, bio-fuel-capable boilers and water-cooled refrigerators. Irrespective of the criticism it had on environmental issues, Walmart's initiative was considered to be a positive step towards change and innovation and it provided them with an opportunity to become the biggest seller of organic milk and the biggest buyer of organic cotton in the world, as well as reducing packaging and energy costs. It has been quoted in 2006's annual report of Walmart that in order to compete against upscale and appealing store, such as 'Target', they have launched a new supercenter concept in Plano, Texas. The new store had wood floors, wider aisles, a sushi bar, a coffee shop with free Wi-Fi internet access and more expensive beers, wines and other electronics goods. By using advance forecasting techniques and integrating different technologies, Walmart is

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planning to deploy simulation software that would help them simulate business events that are yet to happen. Walmart has got a strategic plan of introducing a concept of self-service technology, aimed at eliminating paper and paper forms, will be provided to their associates, prospective associates, customers and members. It was said by Kevin turner, CEO of Walmart's subsidiary corporation, in his interview with 'CIO' personnel that "having an associate portal and devices on our sales floors will let customers and members get product information and let us do computer assisted selling". Walmart has been outstanding in its investments in information technology from all prospects. IT systems at Walmart allow them to reduce transactional as well as operational costs at their distribution centers and it has also helped them to support Walmart's long-term strategy of owning the distribution centers and maintaining long-term relationships with their suppliers. Also, improvement in productivity due to IT systems is dramatic at Walmart. It has helped them offer products at such a nominal cost that a small town merchant is unable to provide and this is remarkable achievement of Walmart. It has become a sustainable

[1M205]

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competitive advantage for them over their competitors and a reason of their growth and profitability. We are aware of a fact that every benefit is accompanied with some problem but Walmart has successfully defied its weaknesses and have used its strength well to take advantage from the prospective opportunities and avoiding possible threats.

- (i) How information technology and information system may be used to help the company operate and achieve its objective
 - (ii) Discuss the challenges faced by the CIO. Which are the most important and why?
 - (iii) What role does Information Technology play in the business? How is it helping Walmart refine its business strategies?
 - (iv) Summarize the main purposes of Information Systems in an organization.
-

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Roll No. _____

Total No. of Pages: **4**

1M206

M.B.A. I - Sem. (Main / Back) Exam., - 2023

M – 106 Organizational Behavior

Time: 3 Hours

Maximum Marks: 70

Instructions to Candidates:

- (i) *The question paper is divided in three parts.*
- (ii) *Part A contains 10 questions which are compulsory. Part B contains eight questions out of which five are to be attempted. Part C contains one question which is compulsory.*

1. NIL

2. NIL

PART – A

[10×2=20]

All questions are compulsory

- Q.1 Explain the concept of Rational Economic Man.
- Q.2 Distinguish between Sensation and Perception.
- Q.3 Explain Balance Theory of Attitude formation.
- Q.4 How do situational factors affect personality?
- Q.5 Explain relationship between Motive, Motivating and Motivation.
- Q.6 What are the objectives of the Quality Circle?
- Q.7 State the guidelines for developing suitable Organizational Culture.
- Q.8 What is legitimate power?
- Q.9 Are Organizational Conflicts always die functional?
- Q.10 Suggest some effective strategies for coping stress at organizational level.

[1M206]

PART – B

[5×6=30]

Attempt any five questions

- Q.1 Discuss various models of organizational behavior. What are the situations under which these can be effective?
- Q.2 “Distortion in person perception may occur due to some factors”. Explain these factors.
- Q.3 “The attitude is learned”. Explain the statement and discuss the factors in attitude formation.
- Q.4 Describe Conditional Theory of learning. What are its implications?
- Q.5 “Equity Theory of Motivation is based on the social exchange processes.” Explain in brief the Equity Theory of Motivation.
- Q.6 What is group cohesiveness? Explain the features of the cohesive group and how it influences productivity?
- Q.7 “The change is successful if it is taken in a plan way.” Comment and explain the process of planned change.
- Q.8 “Even organizations which we consider to be ideal once are not free from conflict” can you apply your knowledge to explain the concept of conflict and how conflicts arise in an organization?

[1M206]

[2100]

PART – C

[20]

(Compulsory)

Q.1 Case Study -

Laura is the Associate Director of a non-profit agency that provides assistance to children and families. She is the Head of a Department that focusses on evaluating the skill-building programs the agency provides to families. She reports directly to the agency leadership. As a whole, the agency has been cautious in hiring this year because of increased competition for federal grant funding. However, they have also suffered high staff turnover. Two Directors have left as well as three key Research Staff and one staff person from the Finance Department. Laura has a demanding schedule that requires frequent travel; however, she supervises two Managers who in turn are responsible for five staff members each. Both Managers have been appointed within the last six months.

Manager 1: Kelly has a specific background in research. She manages staff who provide research support to another department that delivers behavioural health services to youth. Kelly supports her staff and is very organized; however, she often takes a very black and white view of issues. Upper level leadership values Kelly's latest research on the therapeutic division's services. Kelly is very motivated and driven and expects the same from her staff.

Manager 2: Linda has a strong background in social science research and evaluation. She manages staff that work on different projects within the agency. She is known as a problem solver and is extremely supportive of her staff. She is very organized and has a wealth of experience in evaluation of family services. Linda is very capable and can sometimes take on too much.

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[2100]

The Managers are sensing that staff are becoming over worked as everyone takes on increased responsibilities due to high staff turnover. Staff have also mentioned that Laura's "glass half-empty" conversation style leaves them feeling dejected. In addition, Laura has not shared budgets with her Managers, so they are having difficulty appropriately allocating work to staff. Laura said she has not received sufficient information from the finance department to complete the budgets. The Finance Department said they have sent her all the information they have available.

As staff becomes distressed, the Managers are becoming frustrated. They feel like they are unable to advocate for their staff or problem solve without key information like the departmental budget.

Questions :

- (a) How can Laura most effectively use both management and leadership skills in her role as Associate Director? What combination of the two do you think would work best in this setting?
 - (b) What steps could be taken to build staff confidence?
 - (c) What advice would you give Laura on improving her leadership skills and to the Managers on improving their management skills?
-

1M207

Roll No. _____

Total No. of Pages: 4

1M207

M.B.A. I - Sem. (Main / Back) Exam., - 2023

M – 107 Cost and Management Accounting

Time: 3 Hours

Maximum Marks: 70

Instructions to Candidates:

(i) *The question paper is divided in three parts.*

(ii) *Part A contains 10 questions which are compulsory. Part B contains eight questions out of which five are to be attempted. Part C contains one question which is compulsory.*

1. NIL

2. NIL

PART – A

[10×2=20]

All questions are compulsory

- Q.1 Discuss the importance and limitations of standard costing.
- Q.2 What are the trend ratios?
- Q.3 Distinguish between 'fixed budget' and 'flexible budget'.
- Q.4 What are the main steps in budgetary control?
- Q.5 What are the objectives of financial statements?
- Q.6 How to use break-even analysis for decision making.
- Q.7 Write any two limitation of marginal costing.
- Q.8 What do you mean by Accounting Standard?
- Q.9 What do you mean by Human Resource Accounting?
- Q.10 Define Goodwill.

[1M207]

PART – B

[5×6=30]

Attempt any five questions

- Q.1 Discuss the main objectives of introduction of a Cost and Management Accounting System in a manufacturing organization.
- Q.2 Prepare Balance Sheet and Profit and Loss Account from the following information:

| | (In ₹) |
|-----------------|----------|
| Capital | 4,00,000 |
| Working capital | 1,80,000 |
| Bank overdraft | 30,000 |

There is no fictitious asset. Current assets contain only stock, debtors and cash. The following additional data is also available:

- Closing stock is 20% higher than opening stock
 - Current ratio - 2.5
 - Quick ratio - 2.0
 - Proprietary ratio - 0.6 (Fixed assets: Proprietary fund)
 - Gross profit ratio - 20% (of sales)
 - Stock velocity - 5
 - Debtor's velocity - 73 days
 - Net profit ratio - 10% (to average capital employed).
- Q.3 Write the differences between Funds Flow Statement and Cash Flow Statement.

[1M207]

[2220]

- Q.4 Write short notes on -
- Liquidity test ratio
 - Acid test ratio
 - Profitability test ratios
 - Turnover ratios

- Q.5 Discuss the objectives of cost accounting. What are the methods of costing that are used in cost accounting?

- Q.6 Discuss the importance and limitation of standard costing.

- Q.7 Discuss the approach for convergence of Indian Accounting Standards with IFRS.

- Q.8 Following is the information by ABC company Ltd. Related to first week of December, 2020:

The transactions in connection with the materials are as follows:

| Days | Receipts | | Issues |
|-----------------|----------|-------------------|---------|
| | Units | Rate per unit (₹) | (units) |
| 1 st | 40 | 15.50 | - |
| 2 nd | 20 | 16.50 | - |
| 3 rd | - | - | 30 |
| 4 th | 50 | 17.10 | - |
| 5 th | - | - | 20 |
| 6 th | - | - | 40 |

Calculate the cost of materials issued under -

- FIFO method
- LIFO method

[1M207]

[2220]

PART – C
(Compulsory)

[20]

Q.1 The standard material input required for 1000 kgs. of a finished product are given below:

| Material | Quantity (kg.) | St. Rate per kg. (₹) |
|-----------------|----------------|----------------------|
| P | 450 | 20 |
| Q | 400 | 40 |
| R | 250 | 60 |
| | 1100 | |
| Standard loss | 100 | |
| Standard output | 1000 | |

Actual production in a period was 20,000 kg. of finished product for which the actual quantities of material used and the prices paid therefore were as under:

| Material | Quantity (kg.) | Purchase price per kg. (₹) |
|----------|----------------|----------------------------|
| P | 10,000 | 19 |
| Q | 8500 | 42 |
| R | 4500 | 65 |

Calculate:

- (a) Material cost variance
 - (b) Material cost variance
 - (c) Material usage variance
 - (d) Material yield variance
-

Roll No. _____

Total No. of Pages: **4****1M208**

M.B.A. I - Sem. (Main / Back) Exam., - 2023
M-108 Business Statistics and Analytics for Decision Making

Time: 3 Hours**Maximum Marks: 70***Instructions to Candidates:*

- (i) *The question paper is divided in three parts.*
- (ii) *Part A contains 10 questions which are compulsory. Part B contains eight questions out of which five are to be attempted. Part C contains one question which is compulsory.*

1. NIL _____2. NIL _____**PART – A****[10×2=20]****All questions are compulsory**

Q.1 Differential between scalar matrix, diagonal matrix and identity matrix.

Q.2 Find the determinant of the matrix given below –

$$\begin{vmatrix} -19 & -21 \\ 7 & 6 \end{vmatrix}$$

Q.3 Calculate median from the following distribution –

| Marks | 40-60 | 60-80 | 80-100 | 100-120 |
|-----------------|-------|-------|--------|---------|
| No. of Students | 50 | 10 | 12 | 8 |

Q.4 Given that Variance of $x = 144$, standard deviation of $y = 10$, $r = 0.8$. Find its co-variance.

Q.5 Coefficient of correlation between the ages of husbands and wives of a group is 0.8. Average age of husbands was 25 years and of wives was 22 years. Find with the help of regression equation what will be the probable age of husband if wife's age is 12 years.

Q.6 What do you understand by index numbers? What is importance of index numbers for the study of economics and business?

Q.7 From a pack of 52 card, 3 black cards were lost. If one card is drawn randomly from remaining cards, what is the probability that it is black in a colour?

Q.8 Find the compound interest (CI) on ₹ 12,600 for two years at 10% per annum compounded annually.

Q.9 If $\begin{bmatrix} 4+p & p+q \\ p+q+r & q+q \end{bmatrix} = \begin{bmatrix} 14 & \square \\ 0 & -11 \end{bmatrix}$

Find p, q, r and value in the blank box.

Q.10 A coin is tossed four times. What is the probability that all the four times head appears.

PART - B

[5×6=30]

Attempt any five questions

Q.1 Solve the following system of simultaneous linear equations using matrices -

$$3x + y - 2z = 2$$

$$x - 2y + z = 3$$

$$2x - y - 3z = 3$$

Q.2 (a) If $A = \begin{bmatrix} 1 & 6 \\ 1 & 5 \end{bmatrix}$. Is $A + A^T$ symmetric?

(b) If $\begin{bmatrix} 2 & 3 \\ 7 & 0 \end{bmatrix} = a \begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix} + b \begin{bmatrix} 0 & 1 \\ 0 & 0 \end{bmatrix} + c \begin{bmatrix} 0 & 0 \\ 1 & 0 \end{bmatrix} + d \begin{bmatrix} 0 & 0 \\ 0 & 1 \end{bmatrix}$, Find the value of a, b, c and d.

[1M208]

[2340]

Q.3 Find from the following data, which company's lamps are more durable?

| Life (in hours) | 500-700 | 700-900 | 900-1100 | 1100-1300 | 1300-1500 |
|-----------------------------|---------|---------|----------|-----------|-----------|
| No. of Lamps (company A) | 5 | 11 | 26 | 10 | 8 |
| No. of Lamps (company B) | 4 | 30 | 12 | 8 | 6 |

Q.4 Calculate coefficient of correlation before age and playing habits from the following data -

| Age | 15 | 16 | 17 | 18 | 19 | 20 |
|-----------------|-----|-----|-----|-----|-----|----|
| No. of students | 250 | 200 | 150 | 120 | 100 | 80 |
| Regular players | 200 | 150 | 90 | 48 | 30 | 12 |

Q.5 Find the value of \bar{x} and \bar{y} and ' σ_x (standard deviation of 'x' from the following data) -

$$8x - 10y = -66, 40x - 18y = 214$$

Also find correlation coefficient between two variables.

Q.6 From the following data, construct Fisher's Ideal Index number -

| Commodities | Base year (2004) | | Current Year (2005) | |
|-------------|--------------------|--------------------|---------------------|-------------|
| | Price per unit (₹) | Expenditure (in ₹) | Price | Expenditure |
| x | 2 | 40 | 5 | 75 |
| y | 4 | 16 | 8 | 40 |
| z | 1 | 10 | 2 | 24 |
| w | 5 | 25 | 10 | 60 |

[1M208]

[2340]

Q.7 Three urns are there containing white and black balls; first urn has 3 white and 2 black balls, second urn has 2 white and 3 black balls and third urn has 4 white and 1 black ball. Without any biasing one urn is chosen and from that one ball is chosen randomly which was white. What is the probability that it came from the third urn?

Q.8 Write short notes on -

- (a) Break Even Analysis
- (b) Time Value of Money
- (c) Sinking Funds
- (d) Amortization

PART – C

[20]

(Compulsory)

Q.1 (a) The customer accounts at a certain departmental store have an average balance of ₹ 480 and a standard deviation of ₹ 160.

Assuming that the account balances are normally distribute -

- (i) What proportion of the account is over ₹ 600?
- (ii) What proportion of the accounts is between ₹ 400 and ₹ 600?
- (iii) What proportion of the accounts is between ₹ 240 and ₹ 360?

(b) Calculate the Spearman's Rank Correlation Coefficient for the following data and interpret the result :

| | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|
| x | 35 | 54 | 80 | 95 | 73 | 73 | 35 | 91 | 83 | 81 |
| y | 40 | 60 | 75 | 90 | 70 | 75 | 38 | 95 | 75 | 71 |