

201. Marketing Management

1. What are the factors influencing the design of marketing channels? Design suitable channel of distribution for any of the following products:
 - a. Mobile
 - b. Tractor
 2. Mayur industry limited, intends to launch a new product 'Electronic Watch' in Indian market. As a marketing manager which steps would you like to take while launching this product? (Make necessary assumptions and justify your answer).
 3. Explain problems in price setting. 'Price decision is a dynamic decision and not a static one' comment.
 4. 'Firms change their marketing strategies as per change in stage of product life cycles'. Discuss.
 5. What do you mean by Logistics? Explain the various market logistics decisions in detail.
 6. Define Promotion. Also explain various tools of promotions.
 7. Explain various factors affecting while deciding marketing communication mix.
 8. What do you mean by Marketing Evaluation and Control? Explain the marketing control procedure.
 9. Explain the role of marketing communications in marketing effort. How can an organization develop an effective communication process?
 10. Write a short notes (Any 3).
 - a. Branding
 - b. Marketing planning & Contents
 - c. Adapting price
 - d. Classification Of New Product Development
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202. FINANCIAL MANAGEMENT

1. Define Financial Management. Elaborate the scope & functions of Financial Management.
2. Explain the Elements of Financial Management. Discuss briefly the key strategies of financial management.
3. ABC Ltd. has the following capital structure.

Rs.

| | |
|--------------------------------|-----------|
| Equity (expected dividend 12%) | 10,00,000 |
| 10% preference | 5,00,000 |
| 8% loan | 15,00,000 |

You are required to calculate the weighted average cost of capital, assuming 50% as the rate of income-tax, before and after tax.

4. A company has on its books the following amounts and specific costs of each type of capital.

| Type of Capital | Book Value | Market Value | Specific Costs (%) |
|-------------------|------------------|--------------|--------------------|
| Rs. | Rs. | | |
| Debt 4,00,000 | 3,80,000 | 5 | |
| Preference | 1,00,000 | 1,10,000 | 8 |
| Equity | 6,00,000 | 9,00,000 | 15 |
| Retained Earnings | 2,00,000 | 3,00,000 | 13 |
| 13,00,000 | 16,90,000 | | |

Determine the weighted average cost of capital using:

- a) Book value weights, and
- b) Market value weights.

5. From the following Balance Sheet of A Ltd., prepare a statement showing sources and application of funds.

Balance Sheet of 'A' Ltd.

| Liabilities | 31.3.2007 | 31.3.2008 | Assets | 31.3.2007 | 31.3.2008 |
|---------------------------------|------------------|------------------|-------------------------|------------------|------------------|
| | (Rs.) | (Rs.) | | (Rs.) | (Rs.) |
| Share capital | 10,00,000 | 11,00,000 | Goodwill | 50,000 | 40,000 |
| Debentures | 5,00,000 | 3,00,000 | Land and Building | 4,20,000 | 6,60,000 |
| General Reserve | 2,00,000 | 2,00,000 | Plant and Machinery | 6,00,000 | 8,00,000 |
| Profit and Loss A/C | 1,10,000 | 1,90,000 | Stock | 2,50,000 | 2,10,000 |
| Income tax Provision | 40,000 | 1,10,000 | Debtors | 3,00,000 | 2,40,000 |
| Creditors | 50,000 | 40,000 | Cash | 3,00,000 | 24,000 |
| Bills Payable | 20,000 | 30,000 | Preliminary Expenses | 30,000 | 20,000 |
| Provision for Doubtful debts | 30,000 | 24,000 | | | |
| | 19,50,000 | 19,94,000 | | 19,50,000 | 19,94,000 |

Additional Information:

1. During the year 2007-08, a part of machinery costing Rs. 7,500 [accumulated depreciation on that Rs. 2,500] was sold for Rs. 3,000.
 2. Dividend of Rs. 1,00,000 was paid during 2007-08.
 3. Income Tax paid during the year 2007-08 Rs. 50,000.
 4. Depreciation for the year 2007-08 was provided as under:
Land and Building Rs. 10,000.
Plant and Machinery Rs. 50,000.
- Prepare a fund flow statement.

6. Prepare Balance Sheet on the basis of following information given in terms of ratios.

Debtors' turnover Ratio - 4

Creditors Turnover Ratio (to purchases) - 6

Capital Turnover Ratio (to Sales) -2

Stock Turnover Ratio (to cost of sales) - 8

Fixed Assets Turnover Ratio (to Sales) - 8

Gross Profit Ratio- 25%

Gross Profit during the year- Rs. 1,00,000

Reserves & Surplus- Rs.35,000

Closing stock is more by Rs. 20,000 than opening stock

There were no long term liabilities

All sales are on credit basis

Prepare Balance Sheet.

7. The following is Balance Sheet on 31st March, 2016 of the company.

| Liabilities | Rs. | Assets | Rs. |
|------------------------------|-----------------|------------------------|-----------------|
| Equity shares of Rs. 10 each | 6,00,000 | Fixed Assets 35,00,000 | |
| | | Less Dep. 5,00,000 | 30,00,00 |
| | | | 0 |
| Reserve Fund | 4,00,000 | Stock | 6,00,000 |
| Profit & Loss A/C | 5,00,000 | Debtors | 5,00,000 |
| Long term loans | 20,00,00 | Cash | 1,00,000 |
| | 0 | | |
| Creditors | 4,50,000 | | |
| Other current liabilities | 2,50,000 | | |
| | 42,00,00 | | 42,00,00 |
| | 0 | | 0 |

Additional Information:

a. Profit earned during the year is Rs. 4,50,000

b. Market price of share is Rs. 500.

c. Ignore provisions regarding taxations.

Calculate the following ratios:

- i) Debt-Equity Ratio
- ii) Current Ratio
- iii) Acid Test Ratio
- iv) Earnings per share
- v) Price Earning Ratio

8. From the following information of Rushi Pvt. Ltd. suggest which of the machine to be purchased. Expected Earnings after tax are given below. Each machine requires investment of Rs. 4,00,000.

| Year | Machine A cash flow | Machine B cash flow |
|------|---------------------|---------------------|
| 0 | (4,00,000) | (4,00,000) |
| 1 | 40,000 | 1,20,000 |
| 2 | 1,20,000 | 1,60,000 |
| 3 | 1,60,000 | 2,00,000 |
| 4 | 2,40,000 | 1,20,000 |
| 5 | 1,60,000 | 80,000 |

Cost of capital is 10%. Calculate Net Present Value & Profitability Index.

9. A company has an investment opportunity costing Rs. 40,000 with the following expected net cash flow (i.e. after taxes and before depreciation).

| Year | Net cash flows Rs. |
|------|-----------------------|
| 1 | 7,000 |
| 2 | 7,000 |
| 3 | 7,000 |
| 4 | 7,000 |
| 5 | 7,000 |
| 6 | 8,000 |

| | |
|----|--------|
| 7 | 10,000 |
| 8 | 15,000 |
| 9 | 10,000 |
| 10 | 4,000 |

Using 10% as the cost of capital (rate of discount) determine the following.

- Payback period
- Net present value of 10% discounting factor.
- Profitability index at 10% discounting factor.
- Internal rate of return with the help of 10% discounting factor and 15% discounting factor.

10. The cost sheet of PQR Ltd. provides the following data:

Cost per unit

| | |
|---|---------|
| Raw material | Rs.50 |
| Direct labour | Rs. 20 |
| Overheads (including depreciation of Rs.10) | Rs. 40 |
| Total cost | Rs. 110 |
| Profits | Rs. 20 |
| Selling price | Rs. 130 |

Average raw material in stock is for one month.

An average material in work-in-progress is for half month.

Credit allowed by suppliers; one month;

Credit allowed to debtors; one month.

Average time lag in payment of wages; 10 days;

Average time lag in payment of overheads 30 days.

25% of the sales are on cash basis.

Cash balance expected to be Rs. 1, 00,000.

Finished goods lie in the warehouse for one month.

You are required to prepare a statement of the working capital needed to finance a level of the activity of 54,000 units of output. Production is carried on evenly throughout the year and wages and overheads accrue similarly. State your assumptions, if any, clearly

11. Amey Ltd. is commencing a new project to manufacture a plastic component. The following per unit cost information has been ascertained for annual production of 100000 units.

Cost per unit Rs.

| | |
|---------------------------------|----|
| Raw material | 40 |
| Direct labour | 15 |
| Overheads (including | 30 |
| Depreciation of Rs. 5 per unit) | |
| Total cash cost | 85 |

Additional information:

- Selling price of Rs.100 per unit.
- Raw material in stock, average 4 weeks.
- Work in progress, average 2 weeks.
- Finished goods in stock, average 4 weeks.
- Credit allowed to customer, average 8 weeks.
- Credit allowed by suppliers, average 4 weeks.
- Lag in payment of wages, 1.5 weeks.
- Cash in hand is expected to be Rs. 50000.

You may assume that production is carried out on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All sales are on credit basis only. You are required to prepare a statement showing working capital requirements as per **cash cost approach method of working capital estimation.**

203 HR Human Resource Management

1. Discuss the importance of HRM and explain HRM function and objective with examples.
 2. What are the various models of HRM? Explain at least one model in details.
 3. What is Job Analysis? Discuss its importance and purpose with illustration.
 4. Discuss various Internal and External Source of recruitment. Gives the process of HRP in details.
 5. Define Training. Explain significance of training need analysis with reference to training evaluation.
 6. Design a training program for newly joined sale trainee of pharmaceutical company.
 7. Explain the Performance Appraisal and discuss its relevance to employee's compensation.
 8. What are various methods of Performance Appraisal and which one is how comprehensive justify?
 9. Write a short note on
 - i) Organizational Entry
 - ii) Lay Off
 - iii) Employee Surveys
 - iv) Flexible work arrangement
 - v) Industrial Relation
 - vi) Employee Relation
 10. "Flexible Work Arrangement enhances employee's productivity". Discuss with Justification.
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Subject: 204 Decision Science

1. Solve the assignment problem.

How do you deal with the assignment problems where

(a) Assignments are prohibited.

(b) The objective function is to be maximized.

| | 1 | 2 | 3 | 4 | 5 |
|----------|----------|----------|----------|----------|----------|
| A | 8 | 8 | 8 | 11 | 12 |
| B | 4 | 5 | 6 | 3 | 4 |
| C | 12 | 11 | 10 | 9 | 8 |
| D | 18 | 21 | 18 | 17 | 15 |
| E | 10 | 11 | 10 | 8 | 12 |

2. Solve the following TP to maximize profit. Also explain the uses of transportation model.

| Origin | Destinations (Profit Rs./Unit) | | | | Supply |
|---------------|---------------------------------------|-----------|-----------|-----------|---------------|
| | 1 | 2 | 3 | 4 | |
| A | 40 | 25 | 22 | 33 | 100 |
| B | 44 | 35 | 30 | 30 | 30 |
| C | 38 | 38 | 28 | 33 | 70 |
| Demand | 40 | 20 | 60 | 30 | |

3. Solve the following problem graphically:

Maximize: $Z = 3x + 4y$

Subject to: $x + y \leq 6$;

$2x + y \leq 8$; $x, y \geq 0$

4. Solve the following problem graphically:

Minimize : $z = 4x + 5y$

Subject to :

$$5x + y \geq 10; 2x + 2y \geq 12; x + 4y \geq 12; \quad (x, y \geq 0)$$

5. A firm makes two types of furniture – chairs and tables. The contribution to profit by each product as calculated by accounting department is Rs. 20 per chair and Rs. 30 per table. Both the products are to be processed on three machines M1, M2 and M3. The time required in hours by each product and total time available in hours per week on each machine are as follows: How should the manufacturer schedule the production in order to maximize the profit?

| Machine | Chair | Table | Available Time (Hrs) |
|---------|-------|-------|-------------------------|
| M1 | 3 | 3 | 36 |
| M2 | 5 | 2 | 50 |
| M3 | 2 | 6 | 60 |

6. What is Simulation Model? Write a note on Monte Carlo Simulation.

7. Write a note on Markov Chains. Market survey is made on two brands of breakfast foods A and B. Every time a customer purchases, he may buy the same brand or switch to another brand. The transition matrix is given below. At present 60% of people buy brand A and 40% buy brand B. Determine market shares of brands A and B in the steady state.

| From | To | |
|------|-----|-----|
| | A | B |
| A | 0.8 | 0.2 |
| B | 0.6 | 0.4 |

8. The rainfall distribution in monsoon season is as follows: Simulate the rainfall for 10 days using following random numbers: 67, 63, 39, 55, 29, 78, 70, 06, 78, 76. Find average rainfall.

| | | | | | | |
|------------|----|----|----|---|---|---|
| Rain in cm | 0 | 1 | 2 | 3 | 4 | 5 |
| Frequency | 50 | 25 | 15 | 5 | 3 | 2 |

9. In the toy manufacturing company, suppose the product acceptance probabilities are not known, but the following data is known: Determine the optimal decision under each of the following criteria: i. Maximax ii. Maximin iii. Minimax Regret.

| Product | Anticipated 1 st year Profit (Rs. '000) | | |
|---------|--|---------|---------|
| | Acceptance | | |
| | Full | Partial | Minimal |
| Good | 8 | 70 | 50 |
| Fair | 50 | 45 | 40 |
| Poor | -25 | -10 | 0 |

10. Write a note on Games Theory & solve the following game:

| | | | |
|----------|-----------|-----------|-----------|
| | | B | |
| | | B1 | B2 |
| A | A1 | 3 | 5 |
| | A2 | 4 | 1 |

11. What is queuing theory? What type of questions is sought after analyzing a queuing system? What are the assumptions of : (i) Single Server Queuing Model (ii) Multi-server Model.

12. Patients arrive at a clinic according to Poisson distribution at the rate of 20 patients per hour. Examination time per patient is exponential with mean rate 30 per hour.

I. Find the traffic intensity.

II. What is the probability that a new arrival does not have to wait?

III. What is the average waiting time of patient before he leaves the clinic?

13. At an ATM centre arrivals occur according to Poisson distribution with a rate of 5 per hour. Service time per customer is exponentially distributed with mean 5 minutes.

I. Find the expected number of customers in service.

II. What is the percentage of time the facility is idle.

14. The following table gives the activities in a construction project and other relevant information

| | | | | | | |
|--------------------|-------|-------|-------|-------|-------|-------|
| Activity | 1 – 2 | 1 – 3 | 2 – 3 | 2 – 4 | 3 – 4 | 4 – 5 |
| Duration (Days) | 20 | 25 | 10 | 12 | 6 | 10 |

I. Draw the network for the project

II. Find the critical path

III. Determine the expected project completion time

IV. Prepare an activity schedule (showing ES, EF, LF and float for each activity)

15. Explain, in detail, PERT and CPM. Also explain Network components.

16. What is sequencing problem? Explain its application.

There are 7 jobs, each of which have to go through machines A and B in order AB. Processing time in hours is given in the table. Calculate total elapsed time, idle time of both machines and total idle time of the system.

| | | | | | | | |
|--------------|---|----|----|---|----|----|---|
| Job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Machine A | 3 | 12 | 15 | 6 | 10 | 11 | 9 |
| Machine B | 8 | 10 | 10 | 6 | 12 | 1 | 3 |

17. Four cards are drawn at random from a pack of 52 cards. Find the probability that:
- They are a king, a queen, a jack and an ace
 - Two are kings and two are jacks
 - All are clubs
 - All are red or all are blacks
18. An urn contains 8 white and 3 red balls. If two balls are drawn at random, what is the chance that, (i) both are white (ii) both are red (iii) one is of each colour (iv) both are red or both are white.
19. In a certain factory turning out razor blades, there is a small change $1/500$ for any blade to be defective. The blades are supplied in a packet of 10. Use Poisson distribution to calculate approximately, the number of packets containing (i) No defective and (ii) Two defective blades, in a consignment of 10,000 packets.
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Subject: 205 Operation and supply chain management

1. Define quality explain lean management
2. Discuss TQM AND Quality circle
3. Explain the continuous flow system and international flow system
4. Discuss process and production lag-out
5. What is the concept of demand forecasting? Explain forecasting as a planning tool
6. Explain the role and function of production planning and control (PPC)
7. Define the concept of SCM explain the key issues of supply chain management
8. Write the function of SCM. Describe the evolution from physical distribution to logistic to SCM
9. A manufacture company needs 2500 unit of a particular component every year the order processing cost for this part is estimated at Rs.15 and the cost of carrying a part in stock comes to about Rs. 4 per year Determine the EOQ and the options number of in a year
10. Write short note on
 1. ABC analysis
 2. Types of inventory
 3. Inventory planning
11. Case study

The Red Cross, a humanitarian organization, faces logistical challenges that far surpass that of Walmart or Dell. Up to 80% of their costs are in logistics, so it is not surprising that they should seek excellence in their supply chains. But their operations are fraught with uncertain and urgency, so many of the principles that apply to business supply chains do not fit as readily. The International Federation of Red Cross Red Crescent Societies (IFRC) is the largest humanitarian organization in the world, composed of 186 separate National Societies. Coordinating such a dispersed organization is no easy feat, as was made clear when Hurricane Mitch struck Honduras in 1998. IFRC was very slow to organize relief efforts. Its aid did not begin reaching victims until weeks after the event, long after other aid organizations were already on the ground. This lackluster performance caused donors to wonder whether their dollars were well spent and whether the IFRC was capable of

managing a world-class supply chain that could respond to disasters in an efficient and cost-effective way.

The early version of IFRC's Supply Chain IFRC's cumbersome supply chain was centrally managed in its headquarters in Geneva, Switzerland. Whenever disaster struck, a team from Geneva would go evaluate the damage and send back information to create the Relief Mobilization Table, which described what was needed and where. Tents, blankets, food, water, medical supplies, and thousands of other items might be on the table. The data is then sent out to suppliers, the separate National Societies, and also to donors, letting everyone know where to send relief supplies. These agents would then ship the goods to IFRC's emergency units near the disaster area, handling custom clearances, inventory, warehousing and other logistics duties. Then the emergency units would distribute the supplies to local partners, who transported them to the beneficiaries. This centralized supply chain model stumbled badly, especially because of poor information flow and lack of transparency about who was sending what. The disaster side might be flooded with blankets and tents, yet never receive desperately needed telecom equipment. Many organizations send unsolicited goods, which often hindered IFRC's ability to obtain and distribute the needed relief supplies. Failure to coordinate transportation led to unnecessarily high costs for multiple transatlantic flights and shipments. It is clear that IFRC needs a supply chain that is able to handle uncertainty. IFRC's New Supply Chain Management System To improve its performance, IFRC began to transform its supply chain into a decentralized model, creating three regional logistics units in Dubai, Kuala Lumpur and Panama. These units pre-position supplies in warehouses for the most common disasters in their areas, so they can ramp up quickly. For the Information System, IFRC deployed the Humanitarian Logistics Systems (HLS), created especially for disaster recovery by the Fritz Institute. Although Enterprise Resource Planning (ERP) vendors offer supply chain modules along with their core modules for finances and human resources, their products are not designed for situations with so much uncertainty. Instead, IFRC needed a relatively simple system with a single data repository that could handle rapid mobilization. It also needed a system that could be accessed in real time in the field by its regional units, emergency teams, and also the local National Societies.

The HLS is a web-based software that supports several essential functions that helped transform the IFRC supply chain. First, it maintains country and disaster data for the regional units, so they can intelligently pre-position supplies. Once disaster strikes, the system can aggregate the items needed and generate the mobilization table. The software also manages appeals to potential donors, helping to avoid the duplication that plagued earlier efforts. For procurement, the software helps manage supplier relationships by tracking agreements and requests for bids, as well as generating standard purchase orders and invoices. HLS includes tables for tracking shipping information, and it can generate shipping documents, receipts for goods, and reports on where items in the pipeline are currently located and where they can be expected. Testing the New Supply Chain Management System The IFRC's new supply chain was first tested when an earthquake struck Indonesia and the just opened Kuala Lumpur Regional Unit took the lead. Although glitches, occurred, the supply chain was in motion in just three days, less than a third of the time it took IFRC to mobilize for the earthquake in Pakistan the previous year. The operation was also much more cost-effective, an estimation that it reduced cost by half. A Portal for Reporting Getting needed supplies to disaster-affected areas as quickly as possible is the first step toward helping as many people as possible survive. But the Red Cross also helps reduce psychological stress by offering an online-people finding and reporting service called the Safe and Well Website. When bombs exploded at the finish line for the Boston Marathon in 2013, spectators and runners could quickly visit the website with their mobile phones to report they were safe and well, reassuring their family members. The IFRC continues to improve its technology-supported supply chain and communications, to help people who need it around the world.

1. What were the deficiencies in the previous Red Cross supply chain?
 2. What role did IT play in the new Red Cross supply chain?
 3. What other elements are parts of the new Red Cross supply chain?
 4. What were the business results for the Red Cross?
 5. What complimentary assets would Red Cross need in order to reap the full benefits of the new information system deployed?
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206. MANAGEMENT INFORMATION SYSTEM

- Q.1. What is MIS? Explain data, information and knowledge with suitable example.
- Q.2. What are the different components of information system?
- Q.3. Define Computer Network. Explain the different types of Network.
- Q.4. What is cloud computing? Explain Information Systems architecture.
- Q.5. Define Database Management System and explain the advantages of the DBMS.
- Q.6. What is SDLC? Explain waterfall & Spiral model of SDLC in detail.
- Q.7. Write Short Notes:-
- Case Tools
 - Prototyping Model.
 - Artificial Intelligence.
- Q.8. Define DSS. Explain Various Components of DSS.
- Q.9. Distinguish between:-
- Data Ware house and Data Mining.
 - MIS, DSS and EIS.
- Q.10. Explain the need of data warehousing in the organization and necessity of data mining for the organization?
- Q.11. Discuss and illustrative MIS Model for Digital Firm.
- Q.12. Explain BPO and compare BPO & KPO.
- Q.13. Discuss importance of Intellectual Property Rights as regards IT Services/ Products.
- Q.14. "Information technologies can support both beneficial and detrimental effects on society". Discuss.
- Q.15. Draw the following report layouts and explain their use in planning and decision making.
(EACH STUDENT WILL GET DIFFERENT REPORT WHICH WILL BE DISTRIBUTED TO THEM AT THE TIME OF LECTURES).
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209 MS Project LAB

- Q.1. What is a project?
- Q.2. What is project management?
- Q.3. Who are stakeholders?

Q.4. What are constraints on a project?

Q.5. What is the critical path?

Q.6. What are project phases?

Q.7. Create a simple project in MS-Project

| Activity | no of days | preceding activity |
|----------|------------|--------------------|
| A | 3 | -- |
| B | 4 | A |
| C | 5 | A |
| D | 6 | A |
| E | 3 | B |
| F | 4 | C |
| G | 5 | D |
| H | 6 | E,F,G |

Start date for the project is 1st April 2018

212 Business Systems and Procedures

1. Explain in details any one business procedure in current trends.
 2. Discuss with examples, why organizations should be concerned about effective Business Procedure of technology in present business scenario.
 3. What is Innovation? Discuss the process and significance of innovation in Business Systems and Procedures.
 4. Discuss the role of internet as an enabler in the evolution of world class supply chains.
 5. What Is Uses of technologies such as Bar Coding, RFID, Biometry and Mobile Computing for redesigning office procedures.
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Subject: 213 Computer Aided Personal Productivity Tools

Assignment no.1

Write a letter to all customers (10) for wishing them a Happy New year using Mail-merge facility in MS-word.

Assignment no.2

Enter data in excel sheet about height and weight of 20 students studying in 7th standard. Calculate Descriptive statistics using Data Analysis Tool.

Subject: 215 Industry Analysis- Desk Research

Prepare a detailed report on Tourism Industry covering following details:

Overview

Global & Indian Scenario

Contribution to GDP

Requirements in the Industry

New Developments

Current Trends/ Technological Developments

Different sectors in Agriculture Industry

Major Players from various sectors

Govt. Policies, Regulations

Future prospects & potentials
