Engineering Economics All VSAQs

Unit – 1:

1. Define scientific management.

The term Scientific Management contains two words namely- Scientific and Management. The term 'Management" means getting the things done through others and "Scientific" means systematic, analytical and objective approach. Hence Scientific management is the art of knowing exactly what is to be done and the best way of doing it.

2. What are the levels of management and mention any two major functions?

1) TOP LEVEL MANAGEMENT :-

This Management consists of Owners, Board of Directors, Managing Director, General Manager Chief Executive, Financiers, Share holders, Secretaries etc.

The main functions of Top level management

a) To determine the objectives
b) To formulate policies
c) To set organisational frame work
d) To co-ordinate the resources (5 M'S)

2) MIDDLE LEVEL MANAGEMENT:-

This consists of functional heads such as Production Manager, Marketing manager, Financial Manager etc.

The main functions of middle level management are

a) Interpreting the policies framed by top management
b) Motivating personnel to achieve higher Productivity

3) LOWER LEVEL MANAGEMENT :-

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This consists of superintendents, supervisors, foreman etc

The main functions of Lower level management are

a) To carry functions of management
b) To get the work done through the workers
c) To assign the specific job to workers.

3. Differentiate industry and commerce.

Industry is an economic activity, concerned with the procurement and processing of raw materials into finished products, that reaches the customer. Commerce is a business activity, wherein exchange for goods and services for value, is done on a large scale. Conversion of resources into useful goods.

4. List the operational and managerial functions.

1) operating functions consisting of
a) production b) Marketing c) Financial
d) personnel e) Materials and f) office

2) Managerial Functions consisting of
a) planning b) organising c) staffing
d) directing e) co-ordinating f) Controlling.

5. List the different forms of business ownerships.

1) sole proprietorship organisation
2) Partnership organisation
3) Joint stock companies
a) private Limited company
b) public Limited company.

6. Define management of organization.

Management of an organization is the process of planning, organizing, leading, and controlling the activities of the organization to achieve its goals and objectives.

7. What is partnership?

A partnership in an organization is a type of business structure in which two or more individuals or entities share ownership and collaborate to achieve common goals.

8. What is cooperative society?

A cooperative society is a type of business organization owned and controlled by a group of individuals for their mutual benefit.

9. What is public sector?

The public sector is the part of the economy that is controlled by the government and includes government agencies, state-owned enterprises, and publicly-funded services such as schools and hospitals.

10. Define business organization.

A business organization is a company or enterprise that is engaged in commercial activities, such as producing and selling goods or services, with the aim of generating revenue and profits.

11. Relate the relationship between administration, management, and organization in a sentence.

The relationship between administration, management, and organization is that administration is a broader concept that encompasses the overall functioning and management of an organization, while management refers to the specific activities and processes involved in planning, organizing, leading, and controlling the activities of the organization to achieve its goals and objectives. An organization is the structure of people, activities, and resources that are put in place to achieve specific goals and objectives.

12. Differentiate shares and debentures.

Shares are units of ownership in a corporation, while debentures are a type of debt instrument issued by a company that represents a loan made by investors to the company.

13. Define limited liability and unlimited liability.

Limited liability is a type of legal protection that shields the owners of a business from being personally responsible for the debts and obligations of the business. This means that the owners' personal assets, such as their homes and savings, are not at risk if the business is unable to pay its debts. Unlimited liability, on the other hand, is a type of legal responsibility in which the owners of a business are personally responsible for the debts and obligations of the business. This means that their personal assets are at risk if the business is unable to pay its debts.

Unit – 2:

1. Define law of demand.

The law of demand tells us that if more people want to buy something, given a limited supply, the price of that thing will be bit higher.

2. Define marginal utility and total utility.

Marginal utility is the additional satisfaction or benefit that a person derives from consuming one additional unit of a good or service, while total utility is the total satisfaction or benefit that a person derives from consuming a given quantity of a good or service.

3. Define law of supply.

The law of supply states that, all other things being equal, the quantity of a good or service that producers are willing and able to supply is directly related to its price. In other words, as the price of a good or service increases, the quantity supplied by producers will also increase, and vice versa.

4. What is shift in demand?

A shift in the demand for a product is a change in the quantity of the product that consumers are willing and able to buy at a given price, without any change in the price of the product itself.

5. List the factors influencing the demand.

The factors that can influence the demand for a product include the price of the product itself, the prices of substitute or complementary goods, consumer income, consumer preferences and tastes, and the overall state of the economy.

6. What is managerial economics?

Managerial economics is the application of economic principles and methods to the decision-making process within a business.

7. What is meant by demand schedule?

A demand schedule is a table that shows the quantity of a good or service that a consumer is willing to buy at different prices.

Unit – 3:

1. Differentiate selling and marketing.

Selling is the process of promoting and offering a product or service to potential customers with the aim of making a sale, while marketing is the broader process of researching, communicating, and delivering value to customers in order to fulfill their needs and wants. Selling is a part of marketing, but it is not the only aspect of it.

2. List the problems in marketing research.

Some of the problems that can arise in marketing research include incorrect or biased data, limited sample size, lack of control over external factors, high cost and time constraints, and ethical concerns.

3. What is advertising?

Advertising is the process of creating and disseminating messages about a product, service, or brand to potential customers in order to promote and sell it.

4. What is personnel management?

Personnel management is the process of recruiting, hiring, training, evaluating, and compensating employees in an organization. It is concerned with the management of people within the organization, with the aim of maximizing their performance and contributions to the achievement of the organization's goals and objectives.

5. What is breakeven point?

The breakeven point is the level of sales or production at which a business is able to cover its costs and make a profit. At the breakeven point, the total revenue of the business is equal to its total costs, and the business is neither making a profit nor a loss.

6. What is marketing research?

Marketing research is the process of collecting, analyzing, and interpreting data about markets, customers, and competitors in order to inform marketing decisions and strategies. It involves a variety of methods and techniques for gathering and analyzing information, such as surveys, focus groups, and experiments, in order to better understand the needs and preferences of consumers, the performance of competitors, and the overall market environment.

Unit – 4:

1. Mr. A is required to pay five equal annual payments of Rs. 10,000 each in his deposit account that pays 10% interest per year. Find out the future value of annuity at the end of four years.

$FVA_n = A(1+r)^n-1/r$

$FVA_n = 10{,}000(1.10)^4 - 1/.10$

$FVA_n = 10{,}000\ [4.641] = 46{,}410$

2. Suppose the investment is Rs. 1,000 now (beginning of year 1), Rs.2,000 at the beginning of year 2 and Rs.3,000 at the beginning of year 3, how much will these flows accumulate at the end of year 3 at a rate of interest of 12 percent per annum?

FV(12,3) (Rs.1,000) + FV(12,2) (Rs.2,000) + FV(12,1) (Rs.3,000)

= Rs.1,000 × FVF(12,3) + 2,000 × FVF(12,2) + 3,000 × FVF(12,1)

= Rs.[(1,000 × 1.405) + (2,000 × 1.254) + (3,000 × 1.120)] = Rs.7,273

3. Find out the present value of Rs.3, 000 received after 10 years hence, if the discount rate is 10%.

$PV = FV_n / (1+r)^n$

r = 10%, n = 10 years

$PV = 3{,}000/(1+10)^{10}$

PV = 3,000/(.386) = Rs. 1,158

4. Mr. A makes a deposit of Rs. 5000 in a bank which pays 10% interest compounded annually. You are required to find out the amount to be received after 5 years.

$PV = FV/(1+r)^n$

$FV = PVX\ (1+r)^n$

$= 5000\times(1+.10)^5$

$= 5000\times3.791$

= 18,955

5. Find out the present value of a 5 years annuity of Rs.50, 000 discounted at 8%.

r = 8%

n = 5 years

PV = Rs.50,000

PV = Amount of annuity × PV (r, n)

$PVA_n = A[\ (1+r)^n -1/\ r(1+r)^n]$

$= 50{,}000(1.08)^5-1/.08(1.08)^5$

= Rs.50,000 [3.993]

= Rs.1,99,650

6. What is financial management?

Financial management refers to applying management concepts to budgeting, forecasting, managing, and controlling a company's financial resources to achieve its objective. It aims to maximize investors profit by optimizing the firm's money usage. It deals with all the areas connected to profitability, expenses, cash, and credit.

7. Which is the primary goal of financial management?

The main goal of financial management is to increase shareholders' wealth as much as possible. Therefore, it implies the stock price for public companies and the market value of the owner's equity for private companies. To do this, finance managers try to maximize the return and minimize the risk.

8. What are the objectives of financial management?

There are several objectives of financial management in a company's operations, the primary being expanding the business to increase shareholder **wealth**. Its goals are as follows:

- Secure adequate and sustainable funding sources.
- Assure lucrative returns to investors and shareholders.
- Ensure effective utilization of available or borrowed funds.
- Choose secure and profitable investment opportunities.

Finally, plan the structure of a business's financial resources to balance the **equity capital** and **debt** of the organization.

9. What is the importance of financial management?

A company may go awry and incur losses without sound financial management. The following points highlight its importance:

- It helps a business to organize its finances and acquire the necessary capital.
- It is crucial for efficient and effective use of borrowed money.
- Businesses need financial management to make financial decisions.
- It is essential for executing plans in light of up-to-date **financial reports** and data on relevant **Key Performance Indicators** (KPIs).
- It ensures that the company is adhering to all the legal requirements on financial aspects.
- It ensures that each department operates within budget and in alignment with strategy.

10. What are the top 10 Functions of financial management?

1. Liquidity Functions
2. Capital Requirement Estimation
3. Capital Composition
4. Selecting a Sources of Funds
5. Price Control
6. Pricing
7. Capital Investment
8. Managing Funds
9. Distribution of Income
10. Financial Control

11. What is time value of money?

The time value of money (TVM) is the idea that money available at the present time is worth more than the same amount in the future due to its potential earning capacity. This core principle of finance holds that, provided money can earn interest, any amount of money is worth more the sooner it is received.

12. When time value concept is used?

The time value concept is used

1. To compare the investment alternatives to judge the feasibility of proposals.

2. In choosing the best investment proposals to accept or to reject the proposal for investment.

3. In determining the interest rates, thereby solving the problems involving loans, mortgages, leases, savings and annuities.

4. To find the feasible time period to get back the original investment or to earn the expected rate of return.

5. Helps in wage and price fixation.

13. What are the techniques Used to Understand the Concept of Time Value of Money?

1. Compounding Technique or Future Value Technique
2. Discounting Technique or Present Value technique
3. Annual Equivalent method (Discounting Technique or Present Value technique)
4. Uneven cash flows Present value technique

14. What is compound value concept?

The **compound value concept** is used to **find out the Future Value (FV) of present money**. A Future Value means that a given quantity of money today is worth more than what will be received at some point of time in future.

Future Value (FV) =Present Value (PV) + Interest (r)

15. State the objectives of depreciation.

- To ascertain the correct cost of production
- To retain funds for a replacement.
- To ascertain the correct Profit or Loss.
- To show a true and fair view of the financial position.

16. Define annuity in cashflow.

An annuity is a series of equal payments or receipts that occur at regular intervals.

17. Differentiate compounding and discounting techniques of time value of money.

Compounding is the process of calculating the future value of a sum of money, while discounting is the process of calculating the present value of a future payment or receipt. In other words, compounding is the process of earning interest on an investment, while discounting is the process of determining the value of a payment or receipt today, given its future value.

18. What is future worth and present worth method?

The future worth and present worth methods are two different approaches to valuing a stream of cash flows in the time value of money. The future worth method calculates the future value of a series of cash flows, while the present worth method calculates the present value of a series of future cash flows.

19. Define depreciation?

Depreciation is the decrease in value of an asset over time due to wear and tear, obsolescence, or other factors. It is typically calculated as a periodic expense for accounting purposes.

20. List out any two methods used for Evaluating economic alternatives?

Two methods used for evaluating economic alternatives are cost-benefit analysis and marginal analysis.

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