

|  |   |   |
|--|---|---|
|  | <p>satisfying customer needs by means of product</p> <ul style="list-style-type: none"> <li>● Aims at long-term objectives.</li> <li>● Profits through customer satisfaction.</li> <li>● marketing function is to determine the needs, wants and values of target market and to adopt to desired satisfaction more efficiently than competitors.</li> </ul> | <p>need to convert product into cash.</p> <ul style="list-style-type: none"> <li>● Aims at short-term objectives.</li> <li>● Profits through sales volume.</li> <li>● Selling function is to foresee the volume sales with substantial selling and promotion effort.</li> </ul> |
|--|---|---|

Q 6 Give the names of various methods of costing, explain any two. ( 6 Marks)

b)

Ans: Names of methods of costing--- 3 Marks

1. Job Costing
2. Batch Costing
3. Contract Costing
4. Single or Output Costing
5. Process Costing
6. Operating Costing
7. Multiple Costing

Explanation of two methods is to be given. --3 marks.

Solution ITM 2015-16  
T.E Electrical Insem.

Total No of Questions: [06]

SEAT NO. :

[Total No. of Pages :01 ]

**TE/Insem. -121**

**TE 2012 course In semester examination  
Industrial and Technology Management (2012)(311121)  
(Semester - I)**

**Instructions to the candidates:**

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume Suitable data if necessary

**Unit I**

Q1) (a) Give the types of organization structure. Explain Line and Staff organization. ( 4 Marks)

Ans:

- types of organization structure should be given: ( 2 marks )
  - (1) line and military type organization
  - (2) Functional organization
  - (3) Line and staff organization.
- Details of line and staff organization with diagram and at least two advantages and disadvantages. ( 2 marks )

Q1) (b) Explain the following types of business organization: (6 Marks)

- (i) partnership firm
- (ii) joint stock company
- (iii) co-operative society

Ans:

- (i) partnership firm  
Definition, description at least two advantages and disadvantages. (2 marks)
- (ii) joint stock company  
Definition, description at least two advantages and disadvantages. (2 Marks)
- (iii) co-operative society  
Definition, description at least two advantages and disadvantages. (2 Marks)

**OR**



Q2) (a) Differentiate between Administration and Management. (4 marks)

Ans: **at least 4 differences for 4 marks.**

| Sr.No. | Administration  | Management   |
|--------|---|--|
| 1      | It is concerned with determination of objectives and major policies of an organization. | Puts into action the policies and plans laid down by the administration.     |
| 2      | Its functions are mainly legislative and determinative.                                 | It has executive and largely governing function.                             |
| 3      | Its scope is to take major decisions of the organization.                               | It takes decisions within the framework set by the administration.           |
| 4      | Work: coordinates finance, production and distribution                                  | Work: planning, staffing, motivating, organizing, coordination and control.  |
| 5      | Administration does not need technical ability  | Management needs technical ability to function properly.                     |
| 6      | Administration is master of management  | Management is the servant of administration.                                 |
| 7      | It is not productive in character   | It is productive in character.   |
| 8      | Administration gives proper direction to the organization                               | Management uses organization to achieve the goals set by the administration. |

Q2) (b) Explain F.W Taylor's Theory of management. How does it differ from Henry Fayol's theory? (6 Marks)

Ans: **(3Marks)**

1. F.W Taylor is known as 'Father of Scientific Management'. Starting as a machinist in 1873, Taylor became chief engineer in Midvale steel company in 1884.
2. He devoted much of his time in analyzing nature of shop work, measuring carefully the time taken for the action of workers in handling material and operating of machines. His emphasis was on the management of shop level and he called his new management as 'Scientific Management' from traditional management.
3. According to the Scientific management theory, duties of management are
  - (1) to develop a science for each element of man's work.
  - (2) to select, train, teach and develop each workman.
  - (3) to cooperate with the worker so as to ensure all the work is done.
  - (4) to see that there is equal division of work and responsibility between management and workers.

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4. Management should take more responsibility for planning and supervision. Benefits of Taylor's theory include wide scope for specialization, training, planning, timely delivery, better quality, lesser cost, minimum wastage, better utilization of material, time and energy, good relations between management and worker.  
(3 marks)
5. Henry Fayol contributed by his famous 'functional approach' to the management. He categorized all work into six groups.
1. Technical activities: Production, manufacturing.
  2. Commercial Activities: buying, selling, exchange of goods and services.
  3. Financial activities: Search for capital and its optimum use.
  4. Accounting activities: Stock, bookkeeping, balance sheets and statistics.
  5. Security activities: Protection of property and persons.
  6. Managerial activities: co-ordination and control.
6. 14 principles of management were laid by Henry Fayol. They were (1). Division of work, (2). Delegation of authority and responsibility (3) unity of Command, (4). unity of direction, (5). discipline (6). Subordination of individual interest to general interest. (7). Remuneration. (8). centralization. (9). scalar chain. (10). order (11). equity (12). stability (13). initiative (14). Espirit de corps.

### Unit II

Q3) (a) Write a short note on Technology Management at various levels. (6 Marks)

Ans:

**(3 Marks) Management of technology at National Level( Macro Level):** Management of technology at national level or Macro level can be defined as managing the field of knowledge concerned with the setting and implementation of policies to deal with the technological development and utilization and the impact of technology on the society as a whole. it aims to stimulate innovation, create economic growth and to foster responsible use of technology for the benefit of mankind.

At the national level, more focus is placed on the role of public policy as it applies to the advancement of science and technology. The overall impact on science is explored, particularly its role in developing sustainable economic growth. The effect of technological change on people, the type of education and the training they need and its effect on the health, safety as well as on the environment is considered. Government policies are developed to embrace technological change for the benefit of the people of their constituencies and nation as a whole.

**Management of technology at Firm Level ( Micro Level ):** ..Must be described in detail.  
( 3 Marks)



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Q3(b) Explain in detail the classification of Technology. ( 4 marks)

Ans:

Details regarding following types of technologies ( 4 Marks)

1. New technology
2. Emerging technology
3. High technology
4. Low technology
5. Medium technology
6. Appropriate technology
7. Codified technology
8. Tacit technology

Q 4) (a) Explain Pareto Analysis in detail. ( 4 Marks)

Ans:

( 2 Marks) Uses: Pareto analysis is a formal technique useful where many possible courses of action are competing for attention. Pareto analysis is a creative way of looking at causes of problems because it helps stimulate thinking and organize thoughts.

( 2 Marks) What is this technique:

This technique helps to identify the top 20% of causes that needs to be addressed to resolve the 80% of the problems. The value of the Pareto Principle for a project manager is that it reminds you to focus on the 20% of things that matter. Of the things you do during your project, only 20% are really important. Those 20% produce 80% of your results. Identify and focus on those things first, but don't totally ignore the remaining 80% of causes. The Pareto effect is named after Vilfredo Pareto, an economist and sociologist who lived from 1848 to 1923.

Implementation:

Step 1: Identify and List Problems

Step 2: Identify the Root Cause of Each Problem

Step 3: Score Problems

Step 4: Group Problems Together By Root Cause

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Step 5: Add up the Scores for Each Group

Step 6: Take Action

If difficulties in implementation and how to overcome it is written then it is added advantage.

Q 4) (b) Write a short note on Ishikawa Diagram. (6 marks)

(2 Marks) A visual tool to identify, explore and graphically display, in increasing detail, all of the suspected possible causes related to a problem or condition to discover its root causes.

Not a quantitative tool.

Diagram -----

(2 Marks) Use of Ishikawa diagram:

Focuses team on the content of the problem

Creates a snapshot of the collective knowledge of team

Creates consensus of the causes of a problem

Builds support for resulting solutions

Focuses the team on causes not symptoms

To discover the most probable causes for further analysis

To visualize possible relationships between causes for any problem current or future

To pinpoint conditions causing customer complaints, process errors or non-conforming products

To provide focus for discussion

(2 Marks) How to construct the Ishikawa diagram:

1. List the problem/issue to be studied in the head of the fish
2. Label each bone of the fish. The major categories typically used are:
  - The 6 M's: Methods, Machines, Materials, Manpower, Measurement, Management
  - The 4 P's: Place, Procedure, People, Policies
  - The 4 S's: Surroundings, Suppliers, Systems, Skills
3. Repeat this procedure with each factor under the category to produce sub-factors by brainstorming.
4. Continue until you no longer get useful information as you ask, "Why is that happening?"
5. Analyze the results of the fishbone after team members agree that an adequate amount of detail has been provided under each major category. Do this by looking for those items that appear in more than one category. These become the "most likely causes".
6. For those items identified as the "most likely causes", the team should reach consensus on listing those items in priority order with the first item being the most probable" cause.

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## Unit III

Q5 (a) Write a short note on Online Marketing

(i) Online marketing ( 4 Marks)

- Internet marketing, or online marketing, refers to advertising and marketing efforts that use the [Web](#) and [e-mail](#) to drive direct sales via [e-commerce](#) as well as sales leads from [Web sites](#) or emails. Internet marketing and online advertising efforts are typically used in conjunction with traditional types of advertising like radio, television, newspapers and magazines.
- Web marketing, email marketing and [social media](#) marketing:
- Web marketing includes [e-commerce](#) Web sites, [affiliate marketing](#) Web sites, promotional or informative Web sites, online advertising on search engines, and [organic](#) search engine results via [search engine optimization \(SEO\)](#).
- Email marketing involves both advertising and promotional marketing efforts via e-mail messages to current and prospective customers
- Social media marketing involves both advertising and marketing (including [viral marketing](#)) efforts via social networking sites like Facebook, Twitter, YouTube.
- Advantages and Disadvantages.



Ans:

3 marks

Debit and credit: Debit generally represents any depletion in the resources held by the entity while credit represents increment of the resources held by the entity. Hence, debits to an account are negative / depletions in the accounting entity's resources while credits are positive/ increments in the same.

For bank transactions, money in is treated as a debit transaction and money out is treated as a credit transaction.

Capital: Capital generally refers to saved-up financial wealth, especially that is used to start or maintain a business. It includes all elements (e.g. Money, land, building, machinery etc.) a businessman needs to start an enterprise.

3 marks:

Capital may be of the following two types:

1. Fixed or Block Capital
2. Working or Current Capital

For running an industry, two types of capital are needed. One for purchasing fixed assets such as land, building, machinery etc. and is known as fixed capital, whereas the other which is required for day-to-day needs is labelled as working capital.

- *Fixed Capital:*

When an industrial enterprise is started from the ground up it requires capital to make/ purchase land, building, equipment & machinery, tools, furniture etc. Assets of this type are used over and over again for a number of years and are commonly termed fixed capital.

- *Working Capital:*

Once fixed assets, e.g. building, equipment, machinery etc. have been purchased, the enterprise needs funds to meet its day-to-day needs & expenditures such as purchase of raw material & supplies, payment of employee wages, storage costs, advertisement and selling expenses, equipment & plant maintenance costs, transportation & shipping expenses, expenditures during the time lag between the sale of the products & payment for them. Funds required to cover these costs are commonly called as working capital.

Q 6 ( a) Differentiate between Marketing and Selling.

Ans: 4 marks:

| Sr.No. | Marketing  | Selling  |
|--------|--|--|
|        | <ul style="list-style-type: none"> <li>● Customer enjoys unique importance.</li> <li>● Emphasis on customer's needs.</li> <li>● Emphasis on</li> </ul> | <ul style="list-style-type: none"> <li>● Product enjoys supreme importance</li> <li>● Emphasis on seller's needs.</li> <li>● Emphasis on seller's</li> </ul> |