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(U.P.)

DEPARTMENT OF CSE,CE,ME,EC

Subject- Industrial Management Subject code –RAS-601 Question Bank No.1

TOPICS -UNIT 1

Q1. Each question contain 2 marks .For assignment attempt any Five.

(a) Define Industrial Management.

Ans= Industrial management, as a field of Commerce & business administration, studies the structure and organization of industrial companies. It comprises those fields of business administration that are necessary for the success of companies within the manufacturing sector and the encompassing services (primarily operations management, marketing, and financial management).

(b) What do you mean by Industrial Ownership?

Ans= To start a business enterprise the most important thing required is the capital. If the capital is provided by single individual, it is known as Individual ownership\

(c) Explain Productivity Index.

Ans= The productivity index is a measure of the well potential or ability to produce and is a commonly measured well property

(d) What do you mean by management?

Ans= Management (or managing) is the administration of an organization, whether it is a business, a not-for-profit organization, or government body. Management includes the activities of setting the strategy of an organization and coordinating the efforts of its employees (or of volunteers) to accomplish its objectives through the application of available resources, such as financial, natural, technological, and human resources.

(e) Define Production.

Ans= Production is a process of combining various material inputs and immaterial inputs (plans, know-how) in order to make something for consumption (output). It is the act of creating an output, a good or service which has value and contributes to the utility of individuals.

(f) What is Production Function?

Ans= A production function relates physical output of a production process to physical inputs or factors of production. It is a mathematical function that relates the maximum amount of output that can be obtained from a given number of inputs – generally capital and labor.

(g) What are the applications of IM?

Ans= 1.Pre- production Planning

2.Production Planning

3.Control Total Quality Management

4.To Improve Process and Service

(h) What do you mean by Dayabhaga and Mitakshara Law?

Ans= The Dayabhaga is a Hindu law treatise written by Jimutavihana which primarily focuses on inheritance procedure. ... The Dayabhaga does not give the sons a right to their father's ancestral property until after his death.

Mitakshara law draws a distinction between ance stral property (referred to as joint family property or coparcenary property) and separate (e.g. property inherited from mother) and self-acquired properties. ... In the case of separate or self-acquired property, the father is an absolute owner under the Mitakshara law

(i) What is the difference between Production and Productivity?

Ans=Production is a function of an organization which is associated with the conversion of range of inputs into desired output.

It determines the Value of output.

It is a process.

It represents the numbers of units actually produced.

Productivity is a measure of how efficiently resources are combined and utilized in the firm, for achieving the desired outcome.

It determines the Efficiency of factors of production

It is a measure.

It represents the Ratio of output to input.

(j) What is the difference between Batch and Mass production?

Ans=Batch production is generally utilized to create unique batches of items. In other words, the same production equipment can be used to make different batches of different items at different times. So, for example, once a bakery has completed its production of cookies, it can use the same equipment to produce muffins. In between the creation of the two different batches, the equipment being used can be cleaned and reconfigured.

Mass production, on the other hand, has the ability to produce a variety of different items all at the same time. Let’s suppose a company produces different types of juice. Using this production technique, its apple juices, orange juices and grape juices can all be produced concurrently.

Batch production is commonly used to produce several hundred products at a time. In addition to cookies or muffins, think books and Blu-ray discs.

Mass production is often used to produce a larger number of larger-sized products at a time. As a

result, large-scale machinery is necessary. The products being made will have to pass through various stages during the course of production. Think cars, as an example.

Q2. Each question contain 5 marks .For assignment attempt any Five.

(a) Explain the advantages of higher productivity.

Ans=High productivity generally refers to the high output per hour. In fact, high productivity is the increased volume of production above the standard or expected volume of an industry. An organization can be benefited from high productivity, let's know the benefits of high productivity.

Benefits of High Productivity

1.Least cost of product: High productivity reduces labor cost & materials cost of per unit of product.
2.Competitive advantages: It makes company more enable to compete with competitors in the market because of the low cost of production. With this, it can gain competitive price advantages over competitors.
3.Increased sales volume: Sales volume will be increased at a higher rate through the high productivity and low cost.
4.Increased Profit: High productivity results more production which leads to more sales and by which profit will be increased.
5.Reserve fund: From the excess profit reserve fund can be created to meet future uncertainty.
6.Resource utilization: Resources can be utilized properly that is unutilized labor machine capacity can be used and other sunk cost will be reduced.
7.Customer satisfaction: By meeting customers' needs and/or demand on time or early customer satisfaction can be achieved.
8.Increased earnings: Earnings of the employees will be raised through salary increase and employer's earnings will be too through getting more profits.
9.Economic contribution: By paying more for more profit and contributing to GDP it can help fostering the economic growth of a country.
10.Export promotion: Excess product can be exported to another country which will bring more foreign currency.
11.Increased living standard: As earnings increases of the employees and the stakeholders it will lead them to more standard life conditions.
12.Organizational expansion: High productivity may lead to organizational expansion.
13.Environment opportunity: Organizational expansion will need more employees through which more employment opportunities will be created.
14.Bonus facilities: Employees will get benefits through bonus and other intrinsic and extrinsic rewards for their high productivity.

(b) Discuss historical development of Industrial Management.

ans=Studies of Worker Performance

The first sustained effort in the direction of improved efficiency was made by Frederick Winslow Taylor , an assistant foreman in the Midvale Steel Company, who in the 1880s undertook a series

of studies to determine whether workers used unnecessary motions and hence too much time in performing operations at a machine. Each operation required to turn out an article or part was analyzed and studied minutely, and superfluous motions were eliminated. Records were kept of the performance of workers and standards were adopted for each operation. The early studies resulted in a faster pace of work and the introduction of rest periods.

Management of the Machine

Industrial management also involves studying the performance of machines as well as people. Specialists are employed to keep machines in good working condition and to ensure the quality of their production. The flow of materials through the plant is supervised to ensure that neither workers nor machines are idle. Constant inspection is made to keep output up to standard. Charts are used for recording the accomplishment of both workers and machines and for comparing them with established standards. Careful accounts are kept of the cost of each operation. When a new article is to be manufactured it is given a design that will make it suitable for machine production, and each step in its manufacture is planned, including the machines and materials to be used.

Other Aspects of Management

The principles of scientific management have been gradually extended to every department of industry, including office work, financing, and marketing. Soon after 1910 American firms established the first personnel departments, and eventually some of the larger companies took the lead in creating environments conducive to worker efficiency. Safety devices, better sanitation, plant cafeterias, and facilities for rest and recreation were provided, thus adding to the welfare of employees and enhancing morale. Many such improvements were made at the insistence of employee groups, especially labor unions.

Over the years, workers and their unions also sought and often won higher wages and increased benefits, including group health and life insurance and liberal retirement pensions. During the 1980s and 1990s, however, cutbacks and downsizing in many American businesses substantially reduced many of these benefits. Some corporations permit employees to buy stock; others make provision for employee representation on the board of directors or on the shop grievance committee. Many corporations provide special opportunities for training and promotion for workers who desire advancement, and some have made efforts to solve such difficult problems as job security and a guaranteed annual wage.

(c) Define Productivity. State its importance giving suitable examples.

Ans=Productivity refers to the measure of output (e.g. products) from a production process per unit of input (e.g. labor and capital).

Importance of Productivity

1.Productivity is important in economics because it has an enormous impact on the standard of living.

2.Higher productivity increases wages.

3.Technology plays an important part in raising productivity.

4.We must temporarily reduce consumption to make investments that will increase productivity

and support more consumption in the future.

For example, company ABC had net sales of $15 million and its employees worked a total of 20,000 hours over the last fiscal year. The output is the company's net sales and the input is the number of hours. The productivity of the company is $750 ($15 million divided by 20,000). This means for each hour of labor, company ABC's employees produced $750 in sales.

(d) What are the benefits of increasing productivity to the workers and management?

Ans=1. Benefits to the Enterprise:

(i)Higher productivity shall ensure the stability of unit

(ii) More profits

(iii) Higher productivity shall provide higher volume of production hence larger sales volume. This will result in expansion of the concern in wider market.

(iv) It provides overall prosperity and reputation of the enterprise/industry.

2. Benefits to Consumers:

(i) Improved productivity ensures better product quality.

(ii) Enables the concern to cut down product prices.

(iii) Provides consumer satisfaction.

3. Benefits to Workers/Labour:

(i) Higher productivity leads to improved wage structure

(ii) More wages improves living standard of workers.

(iii) Results in improved worker's morale and job satisfaction.

4. Benefits to the Nation:

(i) National wealth is increased.

(ii) Increase per capita income.

(iii) Improves general standard of living.

(e) Discuss the difficulties encountered in measuring productivity.

Ans=difficulties encountered in measuring productivity are:=

1.Difficulty in measuring output : The output of an industry may be measured in terms of volume (units) or value (dollars). It is very difficult to combine both these factors.

If the output is homogeneous (similar), then the productivity can be measured in terms of volume.

If the output is not homogeneous, then the productivity can be measured in terms of value.

However, if some units are homogeneous and other non-homogeneous, then the industry will face difficulties in measuring productivity.

Similarly, it is very difficult to find out whether the by-products and work-in-progress should be included in output or not. If it is included, then it is very hard to find its value.

2.Difficulty in measuring inputs : Most industries do not have proper records of the inputs of land, labor, capital and machines. Even if such records are available, it is very difficult to

calculate the exact number of man hours worked i.e. the input of labor.

3.Factorial productivity :

Factorial Productivity means to calculate the productivity of different factors of production separately.

Some management experts say that a single factor of production cannot produce anything by itself. Therefore, it has no productivity. A single factor of production has productivity only if it is combined with other factors of production.

Therefore, according to these management experts, the concept of factorial productivity is meaningless.

4.Changing conditions : There is a continuous change in the price of inputs and outputs, quality of raw-materials, machines and tools, quality of labor, etc. All this creates difficulties in measuring productivity.

5.Service sector : It is very difficult to measure the productivity of service sectors like Banking, Insurance, Education, etc. This is because the output of the service sector is intangible.

6.Different periods : It is very difficult to compare the productivity of two different periods. For example, comparison of productivity during a war period with a peace period is meaningless.

7.Difficulty in measuring man-hours : It is difficult to find out the exact number of productive man-hours. This is because wages paid to the employees also includes the cost of idle time.

8.Technological change : Changes in technology will cause a change in the nature and quality of output. Therefore, measurement of productivity will become difficult.

(f) Explain the features and importance of management. Discuss

Ans=Feature of management are=

1. Dynamic and relative principles:

Management principles and systems are dynamic, open, progressive and flexible in nature-not rigid, closed or absolute. They can be adapted or modified to suit the requirements of different types of organizations and changed situations.

2. Organized activity:

Management is not an isolated activity but is essentially a team-work in formally organized groups.

3. Existence of objective:

Determination of organizational objectives and their accomplishment form the core of managerial activity.

4. Working with and through people:

Management is essentially leading, guiding, developing and motivating people to effective performance for attainment of common goals.

5. Integration of resources:

Management is integrating and balancing of all resources- both material and human-for their optimum utilization, so as to achieve effective results.

6. Management- Both a Science and an Art:

Management is a science because it consists of an organized knowledge and systematic body of principles. It is, however, a combination of social sciences and behavioral sciences, not an exact science like the physical or natural sciences.

Importance of mangement are=

1.It helps in Achieving Group Goals - It arranges the factors of production, assembles and organizes the resources, integrates the resources in effective manner to achieve goals. It directs group efforts towards achievement of pre-determined goals. By defining objective of organization clearly there would be no wastage of time, money and effort. Management converts disorganized resources of men, machines, money etc. into useful enterprise. These resources are coordinated, directed and controlled in such a manner that enterprise work towards attainment of goals.

2.Optimum Utilization of Resources - Management utilizes all the physical & human resources productively. This leads to efficacy in management. Management provides maximum utilization of scarce resources by selecting its best possible alternate use in industry from out of various uses. It makes use of experts, professional and these services leads to use of their skills, knowledge, and proper utilization and avoids wastage. If employees and machines are producing its maximum there is no under employment of any resources.

3.Reduces Costs - It gets maximum results through minimum input by proper planning and by using minimum input & getting maximum output. Management uses physical, human and financial resources in such a manner which results in best combination. This helps in cost reduction.

4.Establishes Sound Organization - No overlapping of efforts (smooth and coordinated functions). To establish sound organizational structure is one of the objective of management which is in tune with objective of organization and for fulfillment of this, it establishes effective authority & responsibility relationship i.e. who is accountable to whom, who can give instructions to whom, who are superiors & who are subordinates. Management fills up various positions with right persons, having right skills, training and qualification. All jobs should be cleared to everyone.

5.Essentials for Prosperity of Society - Efficient management leads to better economical production which helps in turn to increase the welfare of people. Good management makes a difficult task easier by avoiding wastage of scarce resource. It improves standard of living. It increases the profit which is beneficial to business and society will get maximum output at minimum cost by creating employment opportunities which generate income in hands. Organization comes with new products and researches beneficial for society.

(g) What is meant by Public Sector Organization? What are its aims and objectives?

Ans=Public sector organizations are entities that have been formed to manage the policy and operating requirements that enable a government to achieve its goals of public governance. The term ‘public governance’ has been defined as the management of a nation through the use of political power (Rainey 1991), or more simply put, answers the question: ‘How should government govern, and what should it do’ (Peters 1996, p. 19)? Such a broad definition of public governance permits a wide range of activities to be undertaken by public sector organizations as the administrative arm of government.

basic aim of public sector organisations is to provide essential services to underpriviledged and large section of society through employment and operating it on a profitable basis it serves both functions.

examples are,Steel Authourity of India-SAIL,NATIONAL THERMAL POWER

CORPORATION-NTPC,AIR-INDIA,NATIONALISED BANKS- STATE BANK OF INDIA,AND ALL SIMILAR BANKS-canara bank, pnb,allahabad bank etc.

(h) Discuss in detail the application and scope of Industrial management.

1.Industrial management is the structured approach to manage operational activities of an organization. ? IT IS:- 1. Goal oriented. 2. Effective utilization of human and other Resources. 3. Integral part of any group activity.

2. Initially the scope & application of industrial management was restricted to manufacturing industry. Later on it spread to non- manufacturing activities such as construction & transportation, farm and air- line operations and maintenance, public utilities govt. & military operations. • In an industry besides the production, other departments utilizing industrial management concepts are Marketing, Finance, Purchasing, Industrial relations etc.

3. Major Application Of Industrial Management Pre- production Planning Production Planning and Control Total Quality Management To Improve Process and Service

4. Pre-Production Planning 1. Plant Location 2. Plant Layout 3. Capacity Planning 4. Selection Of Machinery And Equipments 5. Machinery Handling

5. Production Planning and Control 1. Planning 2. Routing 3. Scheduling 4. Dispatching 5. Controlling

(i) What is meant by Joint Stock Company? Compare it with partnership organization.

Ans=A joint-stock company is a business entity in which shares of the company's stock can be bought and sold by shareholders. Each shareholder owns company stock in proportion, evidenced by their shares (certificates of ownership).[1] Shareholders are able to transfer their shares to others without any effects to the continued existence of the company

1. Minimum No. of Members

Minimum number of members is two in a Partnership firm. Whereas in Joint Stock Companies, Minimum number is two in a private company and seven in a public company.

2. Maximum No. of Members

In a Partnership firm, maximum number of members is 20 in general business and 10 in banking firms. In a Joint Stock Company, maximum number of members is 50 in a private company and there is no maximum limit in public company.

3. Registration

Registration of a Partnership firm is not compulsory. Registration of Joint Stock company is compulsory.

4. Separate Legal Existence

Partnership firms has no separate legal existence. Partnership Firm and partners are the same. Joint Stock company has separate legal existence. It is an artificial person created by law.

5. Legislation

Partnership firm is regulated under the Partnership Act, 1932. Joint Stock Company is regulated under the Companies Act, 1956.

6. Capital

Huge capital for partnership firm cannot be secured. There is possibility of securing huge capital in case of Joint Stock company.

7. Liability

In a Parternship firm, liability of each partner is unlimited, joint and several. In a Joint Stock Company, liability of each shareholder is limited.

8. Transfer of Shares

Transfer of shares is not possible without the consent of all the partners in a partnership firm. In case of pubic limited companies shares can be transferred freely.

9. Management

Partnership Firm is managed by the partners themselves, in general. In a Joint Stock Company, management will be in the hands of elected directors.

10. Audit of accounts

Audit of accounts of Partnership firm is not necessary. Audit of accounts of Joint Stock Company is compulsory.

11. Flexibility

The objects of the Partnership firm can be changed easily. It is not so easy in case of a Joint Stock Company.

12. Perpetual succession

Partnership firm has no continuous existence. Joint Stock Company has continuous existence.

Q3. Each question contain 10 marks .For assignment attempt any Two.

a) Industrial Management can be considered as the management of Men, Material and Machine. Explain the statement.

Ans=The concept of management has acquired special significance in the present competitive and complex business world. Efficient and purposeful management is absolutely essential for the survival of a business unit. Management concept is comprehensive and covers all aspects of business. In simple words, management means utilising available resources in the best possible manner and also for achieving well defined objectives. It is a distinct and dynamic process involving use of different resources for achieving well defined objectives. The resources are: men, money, materials, machines, methods and markets. These are the six basic inputs in management process (six M's of management) and the output is in the form of achievement of objectives. It is the end result of inputs and is available through efficient management process.

For effective running of an industry manpower, raw materials and machines are necessary for the effective and faster running of activities within an industry. Industrial management is an act of controlling, co ordinating and supervising the activities within an industry, The activities in the industry includes and comprises of the above mentioned titles.

b) Define Production Function. What are the different types of production systems?

Ans=Output depends upon an input or a set of inputs in such a way that there is one unique amount of output resulting from each set of inputs. This unique relationship between output and inputs is termed as production function.

In general there are three types of production systems, these are stated below

1. Job Production

In this system Products are manufactured to meet the requirements of a specific order. The quality involved is small and the manufacturing of the product will take place as per the specifications given by the customer. This system may be further classified as.

a.The Job produced only once: Here the customer visit the firm and book his order. After the completion of the product, he takes delivery of the product and leaves the firm. He may not visit the firm to book the order for the same product. The firm has to plan for material, process and manpower only after receiving the order from the customer. The firms have no scope for pre-planning the production of the product.
b.The job produced at irregular intervals: Here the customer visits the firm to place orders for the same type of the product at irregular intervals. The firm will not have any idea of customer's visit. Here also planning for materials, process and manpower will start only after taking the order from the customer. In case the firm maintains the record of the Jobs Produced by it, it can refer to the previous plans, when the customer arrives at the firm to book the order.

2. Batch Production

Batch Production is the manufacture of number of identical products either to meet the specific order or to satisfy the demand. When the Production of plant and equipment is terminated, the plant and equipment can be used for producing similar products. This system also can be classified under three categories.

a.A batch produced only once: Here customer places order with the firm for the product of his specification. The size of the order is greater than that of job production order. The firm has to plan for the resources after taking the order from the customer.
b.A Batch produced at irregular intervals as per Customer order or when the need arises: As the frequency is irregular, the firm can maintain a file of its detailed plans and it can refer to its previous files and start production.

3. Continuous Production

Continuous Production system is the specialized manufacture of identical products on which the machinery and equipment is fully engaged. The continuous production is normally associated with large quantities and with high rate of demand. Hence the advantage of automatic production is taken. This system is classified as

a.Mass Production: Here same type of product is produced to meet the demand of an assembly line or the market. This system needs good planning for material, process, maintenance of machines and instruction to operators. Purchases of materials in bulk quantities is advisable.
b.Flow Production: The difference between Mass and Flow Production is the type of product and its relation to the plant. In Mass Production identical products are produced in large numbers. If the demand falls or ceases, the machinery and equipment, after slight modification be used for

manufacturing products of similar nature. In flow production, the plant and equipment is designed for a specified product. Hence if the demand falls for the product or ceases, the plant cannot be used for manufacturing other products. It is to be scraped.

c) How is productivity measured? What are the factors affecting productivity?

Ans=Measured productivity is the ratio of a measure of total outputs to a measure of inputs used in the production of goods and services. Productivity growth is estimated by subtracting the growth in inputs from the growth in output — it is the residual.

There are a number of ways to measure productivity. In Australia, the most common productivity measures used are:

1.multifactor productivity (MFP), which measures the growth in value added output (real gross output less intermediate inputs) per unit of labour and capital input used; and
2.labour productivity (LP), which measures the growth in value added output per unit of labour used.

For example,Let's say your company generated $80,000 worth of goods or services (output) utilizing 1,500 labor hours (input). To calculate your company's labor productivity, you would divide 80,000 by 1,500, which equals 53. This means that your company generates $53 per hour of work.

You could also look at labor productivity in terms of individual employee contribution. In this case, instead of using hours as the input, you would use number of employees.
Let's say your company generated $80,000 worth of goods or services in one week with 30 employees. You would divide 80,000 by 30, which equals 2,666 (meaning each employee produced $2,666 for your company per week).

the factors which are affecting productivity given below:

1.Technical factors : Productivity largely depends on technology. Technical factors are the most important ones. These include proper location, layout and size of the plant and machinery, correct design of machines and equipment, research and development, automation and computerization, etc. If the organization uses the latest technology, then its productiveness will be high.
2.Production factors : Productivity is related to the production-factors. The production of all departments should be properly planned, coordinated and controlled. The right quality of raw-materials should be used for production. The production process should be simplified and standardized. If everything is well it will increase the productiveness.
3.Organizational factor : Productivity is directly proportional to the organizational factors. A simple type of organization should be used. Authority and Responsibility of every individual and department should be defined properly. The line and staff relationships should also be clearly defined. So, conflicts between line and staff should be avoided. There should be a division of labor and specialization as far as possible. This will increase organization's productiveness.
4.Personnel factors : Productivity of organization is directly related to personnel factors. The

right individual should be selected for suitable posts. After selection, they should be given proper training and development. They should be given better working conditions and work-environment. They should be properly motivated; financially, non-financially and with positive incentives. Incentive wage policies should be introduced. Job security should also be given. Opinion or suggestions of workers should be given importance. There should be proper transfer, promotion and other personnel policies. All this will increase the productiveness of the organization.

5.Finance factors : Productivity relies on the finance factors. Finance is the life-blood of modem business. There should be a better control over both fixed capital and working capital. There should be proper Financial Planning. Capital expenditure should be properly controlled. Both over and under utilization of capital should be avoided. The management should see that they get proper returns on the capital which is invested in the business. If the finance is managed properly the productiveness of the organization will increase.

6.Management factors : Productivity of organization rests on the management factors. The management of organization should be scientific, professional, future-oriented, sincere and competent. Managers should possess imagination, judgement skills and willingness to take risks. They should make optimum use of the available resources to get maximum output at the lowest cost. They should use the recent techniques of production. They should develop better relations with employees and trade unions. They should encourage the employees to give suggestions. They should provide a good working environment, and should motivate employees to increase their output. Efficient management is the most significant factor for increasing productiveness and decreasing cost.

7.Government factors : Productivity depends on government factors. The management should have a proper knowledge about the government rules and regulations. They should also maintain good relations with the government.

8.Location factors : Productivity also depends on location factors such as Law and order situation, infrastructure facilities, nearness to market, nearness to sources of raw-materials, skilled workforce, etc.