

NCERT Solutions for Class 12 Business Studies Principles and Functions of Management Chapter 2

Principles of Management Class 12

Chapter 2 Principles of Management Exercise Solutions

Multiple choice questions : Solutions of Questions on Page Number : 67

Q1 :

Principles of management are NOT

- (a) Universal
- (b) Flexible
- (c) Absolute
- (d) Behavioural

Answer :

Principles of management are not absolute. They are just the guidelines for the decision making in the course of management. That is, principles of management are not applied as it is in the real business situations rather they need to be modified by the manager as per the situation and the requirement.

Q2 :

How are principles of management formed?

- (a) In a laboratory
- (b) By experiences of managers
- (c) By experiences of customers
- (d) By propagation of social scientists

Answer :

Principles of management were developed over years by experiences and observations of the managers. Every manager faces varying situations in real business organisations. Based on these experiences, they draw general conclusions and inferences that guide them in their action and decision making in similar situations. That is, the experiences of the managers form the basis of the principles of management.

Q3 :

The principles of management are significant because of

- (a) Increase in efficiency**
- (b) Initiative**
- (c) Optimum utilisation of resources**
- (d) Adaption to changing technology**

Answer :

Optimum utilisation of resources entails employing the limited resources (such as capital and labour) to their best possible usage so that maximum benefit can be derived with minimum possible cost. Principles of management help in predicting the cause and effect relationship of the decisions of the managers. Thus, the wastages of resources that may be associated with the hit and trail method can be avoided. Thus, principles of management are significant because of optimum utilisation of resources. Increase in efficiency, initiative and adaptation to changing technology arrives at later stages, once the resources are fully utilised.

Q4 :

Henry Fayol was a

- (a) Social Scientist**
- (b) Mining Engineer**
- (c) Accountant**
- (d) Production engineer**

Answer :

Henry Fayol (1841-1925) was a French mining engineer who started his work in the mining industry at the age of nineteen. Based on his own experience, he developed the theory of business administration. He gave the concept of 'Administrative Principles'.

Q5 :

Which of the following statement best describes the principle of 'Division of Work'

- (a) Work should be divided into small tasks**
- (b) Labour should be divided**
- (c) Resources should be divided among jobs**
- (d) It leads to specialisation**

Answer :

According to the principle of 'Division of Work', the work should be divided into small jobs. This is because of the fact that any complex task can be performed efficiently if it is divided into smaller units and performed by specialists.

Q6 :

'She/he keeps machines, materials, tools, etc., ready for operations by concerned workers'. Whose work is described by this sentence under functional foremanship

- (a) Instruction Card Clerk**
- (b) Repair Boss**
- (c) Gang Boss**
- (d) Route Clerk**

Answer :

The work of Gang Boss is being described in the given sentence. Gang boss is assigned the task of keeping the machines and tools ready for operations. That is, he has to take care of the materials which are to be used by the working people. On the other hand, repair boss ensures that these machines are in proper working condition. Route clerk is there to watch over the route of production and instruction card clerk assigns the duties of the workers.

Q7 :

Which of the following is NOT a Principle of management given by Taylor?

- (a) Science, not rule of Thumb**

(b) Functional Foremanship

(c) Maximum not restricted output

(d) Harmony not discord

Answer :

Among the options given above, Functional Foremanship is not a principle of management rather it is a technique of scientific management as given by Taylor. It comprises of the methods or steps to be taken to achieve a desired goal. On the other hand, the other three are principles of management that acts as guidelines for decision making in the actual practice of the techniques.

Short answerslong answersmultiple choice questions : Solutions of Questions on Page Number : 68

Q1 :

How is the principle of 'Unity of Command' useful to management? Explain briefly.

Answer :

The principle of 'Unity of Command' states that any person should be answerable to just one boss. If an individual receives command from two or more people then, this principle is violated. According to Fayol, this principle plays an important role in management. If this principle is violated then, it leads to confusion in the mind of the employee which leads to instability and disturbance. For example, suppose A(sales manager) gives B a task that has to be completed in 5 days. On the other hand, C (finance manager) asks B to complete the same task in 3 days. This will lead to confusion in terms of targets.

Q2 :

Explain the Principles of Scientific management given by Taylor.

Answer :

Scientific management implies knowing exactly what is to be done and devising the best ways of doing it. This term was given byFrederick Taylor (1856-1915) in 1911. It suggests that work should be done according to standardised techniques and tools and with the help of specialised personnel so as to improve the quantity as well as the quality of the product and the same time reducing the costs. That is, scientific management improves the effectiveness and efficiency of work.

The following are the principles of scientific management.

1. **Science, not a rule of thumb:** Before Taylor developed the Principles of Management, Rule of Thumb was a widely used concept. Under rule of thumb, each manager handled a situation or problem as and when they arose using the trial and error method. It was an easily applicable process but was a very vague and inaccurate technique of determining solutions to the problems. Taylor fostered the introduction of Scientific methods. He believed that for every work there is only one best method of doing it. He wanted managers to take decisions on the basis of logic and science rather than rule of thumb. He proposed that various traditional methods used by the managers should be studied and the best method/solution among them should be adopted and followed by all the managers in the organisation. With such scientific management he was able to increase efficiency to a large extent.

2. **Harmony, not Discord:** Taylor emphasised that the managers and the workers should maintain a harmonious work environment. They should realise their interdependence and work in amity. He was well acquainted with the fact that a friendly working environment will help in developing the relations between them. He introduced this principle to maintain a peaceful kinship between people. Often it is found that if the workers are deprived of their wishes or demands they generally go on strike. This affects the productivity and the working environment. To dismiss such a situation Taylor was ardent about a mental revolution. It implies a change in the thinking of both the workers and managers. For example, if a worker is having a problem with the working hours, he should talk to the manager about it, instead of letting it affect the production (by going on a strike). Similarly, the managers should listen to the worker's suggestions and demands rather than ignoring them.

3. **Cooperation, not Individualism:** This principle emphasised cooperation among the managers and workers over individualism. This principle was an elongation of the principle of 'Harmony, not discord'. According to it, the workers and the manager should work with mutual understanding of each other. The manager should take care of the labourers. He should share the company gains with the workers; awarding them with sufficient incentives to work. Similarly, the labourers should willingly work, giving their best contribution to the company. This will build up mutual trust and belongingness within both of them. Work and responsibility should be equally divided and a sense of cooperation and coordination should be established.

4. **Personnel Development:** Any organisation should focus on the development of its workers along with the company's growth. This is because if the workers will have higher proficiency, then they will be able to increase their contribution to the organisation's development. They should introduce ways and incentives to build up their competitiveness. Efforts towards increasing the efficiency should begin at the very first step i.e. while hiring the workers. Employees should be recruited in a scientific manner. They should be assigned works according to their mental/physical qualities. For increasing the efficiency the workers should be given a proper training.

Q3 :

Define Scientific Management. State any three of its principles.

Answer :

The term 'Scientific management' was developed by Frederick Taylor (1856-1915) in 1911. It refers to the classical outlook of management which focussed on devising the best ways of doing the work and thereby increasing the effectiveness and efficiency of work. Scientific management implies working according to standardised techniques and tools and with the help of specialised personnel so as to improve the quantity as well as the quality of the product and the same time reducing the costs. Scientific management is also known as Taylorism.

The Following are three principles of scientific management.

i. *Harmony, Not Discord*: According to this principle, the managers and the workers should maintain a harmonious work environment. They should realise that they are dependent on each other. Only if they work in amity, will they be able to perform better. Taylor emphasised on complete mental revolution. That is, the workers should change their attitude and each one should realise others importance. Management should take care of the needs of the workers and workers on the other hand should work to their best efficiency. Both should work in harmony towards the common goals of the organisation.

ii. *Science, Not Rule of Thumb*: According to Taylor, instead of rule of thumb scientific management practices should be followed. Under the rule of thumb, each manger handles a situation as and when they arise. They used the trial and error method to find solutions to a problem. Taylor proposed that instead of this management practices should be scientific. He suggested that a study of various traditional methods should be done and the best method/solution among them should be adopted and followed by all the managers in the organisation. Such a scientific management greatly reduces the costs and improves efficiency.

iii. *Personnel Development*: Overall efficiency of the organisation depends on the individual competencies of the employees. Scientific management aimed at improving the working capabilities of the employees to their maximum level. It focussed on the training and development of the labourers to raise their productivity.

Q4 :

Explain the following Principles of management given by Fayol with examples:

- (a) Unity of direction**
- (b) Equity**
- (c) Espirit de corps**
- (d) Order**
- (e) Centralisation and decentralisation**
- (f) Initiative**

Answer :

(a) **Unity of Direction**- According to this principle, each unit of the organisation should work towards a common objective. According to it, units having same goals should have a single head and plan. This principle helps in eliminating the overlapping of work. For example, if an organisation is engaged in the manufacturing of two products, then each should have its own separate department and divisions with their respective heads and plans

(b) **Equity**- This principle focuses on treating each employee fairly equally. That is, it states that each employee should be equal in the eyes of the manager. Although this principle calls for kindness in the behaviour of the manager, however sometimes force can also be used to set an example for other employees. In addition the workers should be regarded as equal grounds of religion, language, caste, etc. This helps in building an amiable environment. For example- if workers from different religions or nationalities are working in the same organisation then no discrimination should be done against any.

(c) **Espirit de Corps**- This principle recommends that employees should work in unity with each other. They should work as a team. In other words, team spirit should be promoted by the manager. Each employee should have a sense of belongingness. This proves useful especially in large organisations where without team work, achievement of objectives would become difficult. Team spirit increases coordination and mutual understanding among the employees and thereby improves efficiency.

(d) **Order**- Orderliness principle focuses on right arrangement of things. Everything and everyone should be at their respective places, in short 'right people at right place and at right time'. This helps in carrying out the tasks smoothly. For example, if files are kept in a certain order then this will help in locating the file easily when required. Violation of this principle leads to chaos and delay in work.

(e) **Centralisation and Decentralisation**- Centralisation refers to the consolidation of power and authority to one or only few hands. Here, the decision making power gets reserved to the centre point of an organisation. On the other hand, decentralisation refers to the delegation of authority to more than one level. According to Fayol, the involvement of the employees with the higher authority should be balanced by decentralising the authority to the managers. For example, if the CEO of a company is responsible for decision making for the entire organisation then, this is centralisation of power. On the other hand, if the decision making power is delegated to managers at the middle and lower level then, this will be called decentralisation.

(f) **Initiative**- According to this principle, workers should be given enough motivation and incentive to work. They should be inspired to come up with suggestions for regarding the work. Although initiatives should be encouraged, but they should be in line with the practices and rules of the organisation. For example, the managers can ask the workers for their inputs over how to increase efficiency. Also, good suggestions can be rewarded.

Q5 :

If an organisation does not provide the right place for physical and human resources in an organisation, which principle is violated? What are the consequences of it?

Answer :

In the stated situation, the Principle of Order is violated. As per the Principle of Order, there should be right arrangement of things. Everything and everyone should be at their respective places, in short 'right people at right place and at right time'. This helps in carrying out the tasks smoothly. If this principle is violated, then it leads to chaos and delay in work. For instance, if the files are not kept in a certain order, then it will lead to difficulty in locating a file when required. This will further lead to delay in the work.

Q6 :

Explain any four points regarding significance of Principles of Management.

Answer :

Principles of management play an important role in managerial practices. They guide the managers in taking actions and decisions. The following points highlight the significance of Principles of Management

1. *Insights to Reality*: Principles of Management are based on years of experimentation and experience. Thus, these principles guide the managers, when they face the real world problems. Managers can use them in different situations to solve the recurring problems.

2. *Logistic Decisions*: Decisions regarding management should be taken carefully. They should be based on reasons and proofs rather than beliefs and ignorance. As principles of management were developed from real life problems so, they stand the test of logic and reasoning. Thus, principles of management help the managers in taking logical decisions that are free from personal bias.

3. *Basic Education of Management*: These principles form the basic roots of management education. Without them management as a discipline could not have been developed. That is, they form an important part of management curriculum. In addition, they also form the basis of further research on management techniques and methods.

4. *Optimal use of Resources*: Principles of management help in the optimum utilisation of the available resources. With principles of management the exact cause and effect relationship of the decisions of the managers can be predicted. Thereby, the wastages of resources that may be associated with the hit and trail method can be avoided.

Thus, by following the principles of management, best possible usage of resources becomes possible such that maximum benefit can be derived with minimum possible cost.

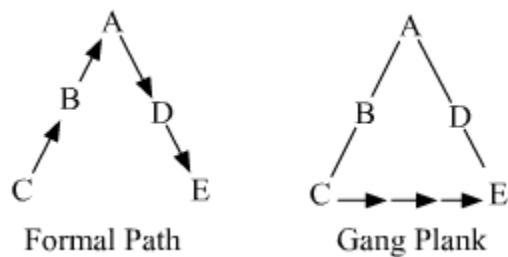
Q7 :

Explain the principle of 'Scalar Chain' and gang plank.

Answer :

Scalar Chain refers to a pre-defined, formal path of authority and communication in the order of highest to the lowest. For example- if A is the CEO of an organisation and he has two paths of authorities under him. One, A-B-C and the other A-D-E. Everybody in the organisation follows this chain of authority for communication. For example, If C wants to contact with E then he will have to follow this formal path, as $C \rightarrow B \rightarrow A \rightarrow D \rightarrow E$. That is, C has to first contact the higher authorities ($C \rightarrow B \rightarrow A$) over him who then transverse the communication to E ($A \rightarrow D \rightarrow E$).

However, in case of emergency C may directly contact E through 'Gang Plank'. Gang plank is a shorter emergency route through which the workers lower in the authority chain can directly contact the persons of higher authority or those working in other scalar chains.



Q8 :

Management should find 'One best way' to perform a task. Which technique of Scientific management is defined in this sentence?

- (a) Time Study
- (b) Motion Study
- (c) Fatigue Study
- (d) Method Study

Answer :

The technique that is being described in the given sentence is 'Method Study'. According to the 'Method Study' there is always a 'one best way' to complete any task. Every task can be performed via best method to gain efficiency. The basic purpose of this study is to reduce the costs to its minimal and increase the productivity to its maximum. Time study, Motion study and Fatigue study aims at standardising the time limits, eliminating the unwanted actions and deciding the break limits, respectively.

Q9 :

Which of the following statements best describes 'Mental Revolution'?

- (a) It implies change of attitude**
- (b) The management and workers should not play the game of one upmanship.**
- (c) Both management and workers require each other.**
- (d) Workers should be paid more wages.**

Answer :

'Mental Revolution', a term given by Taylor implied that the management and workers should change their attitude and thinking towards harmony. Management should take care of the needs and suggestions given by the workers and workers on the other hand, should work to their best capability. This will build a harmonious working environment in the organisation.

Q10 :

Which of the following statements is FALSE about Taylor and Fayol?

- (a) Fayol was a mining engineer whereas Taylor was a mechanical engineer**
- (b) Fayol's principles are applicable in specialised situations whereas Taylor's principles have universal application.**
- (c) Fayol's principles were formed through personal experience whereas Taylor's principles were formed through experimentation.**
- (d) Fayol's principles are applicable at the top level of management whereas Taylor's principles are applicable at the shop floor.**

Answer :

The false statement is 'Fayol's principles are applicable in specialised situations whereas Taylor's principles have universal application'. The correct statement in place of this is, 'Fayol's principles are universally applicable whereas Taylor's principles are applicable only in specialised situation.'

Long answers : Solutions of Questions on Page Number : 69

Q1 :

Explain the technique of 'Functional Foremanship' and the concept of 'Mental Revolution' as enunciated by Taylor.

Answer :

Functional Foremanship

A foreman refers to a person who is in charge of the operational level workers. Taylor suggested that to increase the efficiency, performance of the foreman should be improved. That is, Taylor focussed on the importance of the foreman in an organisation. Taylor observed and identified few qualities, such as intelligence, tact, judgement, etc., that a foreman should have. He found that no single person can have all the required qualities. Thus, he suggested that instead of a single person, there should be eight persons through which the functions of a foreman should be accomplished. This technique was given the name Functional Foremanship. According to this, the planning and the production functions should be separated. That is, under the manager, there would be one planning incharge and one production incharge. Each incharge would have four personnel under him/her.

The following are the four persons that worked under the *planning incharge*.

- i. *Instruction Card Clerk*- To give instructions to the workers.
- ii. *Route Clerk*- To show the route of production.
- iii. *Time and Cost Clerk*- To take care about the time and costs.
- iv. *Disciplinarian*- To ensure that discipline is being maintained.

The following are the four persons that worked under the *production incharge*.

- i. *Speed Boss*- To ensure timely completion of tasks
- ii. *Gang Boss*- To keep the machines and tools ready for the workers.
- iii. *Repair Boss*- To ensure proper working of the machines.
- iv. *Inspector*- To control the quality of work done.

Mental Revolution

Mental Revolution implies changing the attitude of the workers and the managers. Mental revolution aimed at improving the thinking of both, to create a better working environment. The workers and the manager should change their attitude and each one should realise others importance. Both should work towards the common goals of the organisation. Management should take care of the needs of the workers and share the benefits with them. On the other hand, workers should put in their best efforts. Thus, the concept of Mental Revolution enunciated on cooperation and mutual trust between the workers and the managers.

Q2 :

Discuss the following techniques of Scientific Work Study:

- (a) **Time Study**
- (b) **Motion Study**
- (c) **Fatigue Study**
- (d) **Method Study**
- (e) **Simplification and standardisation of work.**

Answer :

(a) **Time Study-** In this technique Taylor emphasised on setting a standard time limit for completing any particular job. With the help of time measuring tools, considerable readings were taken for the time taken to complete a task. On the basis of this a standard time limit is set for each task. This helped in deciding the number of workers to be employed for the task, determining their wages, etc. For example, if, on the basis of observations it is determined that one person can finish making 1 shirt in two hours then, in a working day of 8 hours, each worker should make 4 shirts.

(b) **Motion Study-** As the name suggests, motion study refers to the study of motion (movements) involved while undertaking a task. This technique aims at removing the unwanted actions/motions so that the work can be completed in a lesser time. Taylor along with his associate Frank Gailberth observed the motions of a worker and categorised them as productive, incidental and unproductive. They demonstrated that by eliminating the unproductive movements productivity can be increased. For example, in brick layering they demonstrated that productivity increased by nearly 4 times by reducing the motions from 18 to 5.

(c) **Fatigue Study-** This technique is regarding requirement of rest or break during the work. If a worker works continuously physical and mental fatigue sets. This reduces his/her efficiency. Thus, the worker requires rest or break. Fatigue study identifies the intervals required while completing a task. It suggests that standard break timings should be decided for improving the working performance of workers.

(d) **Method Study-** This study aims at finding out the best method of completing any work. It takes into account each and every activity involved in the task. It helps in reducing the costs and maximising the satisfaction of the customers. Assembly line production, used by Ford Motors is a popular example of method study.

(e) **Simplification and Standardisation of Work-** Taylor holds up standardisation as the very basis of techniques of scientific management. Standardisation as the word suggests implies setting of milestones or benchmarks for any work or activity. Various other techniques by Taylor, such as method study, fatigue study and time study are also based on the concept of standardisation.

Simplification on the other hand means eliminating any unnecessary diversifications in the product. It aims at fuller utilisation of the resources, reducing inventories and increasing the turnover. It helps in reducing the costs of labour and machines. This technique helps in optimum utilisation of resources and removes the unnecessary costs related to work.

Q3 :

Discuss the differences between the contributions of Taylor and Fayol.

Answer :

Basis of Difference	Taylor's Contributions	Fayol's Contributions
Contribution	Scientific Management or 'Taylorism' Theory was given by Taylor in 1911.	General Theory of Administration or 'Fayolism' was given by Fayol in 1916
Personality	Taylor was a mechanical engineer/scientist.	Fayol was a mining engineer/practitioner.
Principles and Techniques	Taylor introduced Principles of Scientific Management and Functional Foremanship along with the techniques such as method study, motion study, etc.	Fayol introduced 14 Principles of Management such as Order, Equity, Espirit de Corps, etc.
Application of Principles	Principles are applicable to specialized situations.	Principles are accepted everywhere and are universal in nature.
Perspective	Taylor's principles are based on improving the conditions of floor level workers first.	Fayol's principles are based on the functions of the higher level managers.
Emphasis and Focus	Focus was on improving the overall administration of an organisation.	Focus was on increasing the productivity along with the worker's efficiency.
Title	Taylor is called 'Father of Scientific Management'	Fayol is called 'Father of General Management'

Q4 :

Discuss the relevance of Taylor and Fayol's contribution in the contemporary business environment.

Answer :

The principles of Taylor and Fayol play an important role in contemporary business environment. Taylor's scientific management principles and Fayol's administrative principles provide guidelines to the managers in taking actions and decisions. They help in explaining and predicting the business situations and thereby, guides the managerial behaviour. Although they cannot be used as it is but they prove as important guidelines in complex real business situations.

Managers can use them in different situations to solve the recurring problems. Decisions taken on the basis of these principles are based on facts and logic and are thereby, more appropriate. They are developed over time by a continuous process of observations and experimentation. Thus, they provide useful insight into the real business situations. These principles have universal applicability and are used by all organisations irrespective of the size, nature, region. Moreover, as these principles are based on the human behaviour so, they help in establishing a relationship between human and material resources in an organisation. The applicability of these principles helps in overall development of the organisation. These principles aim at increasing the overall efficiency in the organisation along with optimum utilisation of resources. They also highlighted the importance of cooperation among the employees and the managers while maintaining a harmonious work environment.