CSE-417

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# Part - I

## Ans. to the ques. no. - 01(a)

**Failure Analysis:**

Failure Analysis plays a vital role in taking decisions pertaining to maintenance planning and control.

Failure Analysis helps to identify the nature and occurrence of failures and can be shown as a generalized relationship of failure depicted as a bath-tub curve (weibull distribution) which is typical for all operating mechanisms.

Bath-tub curve is drawn in the next page:

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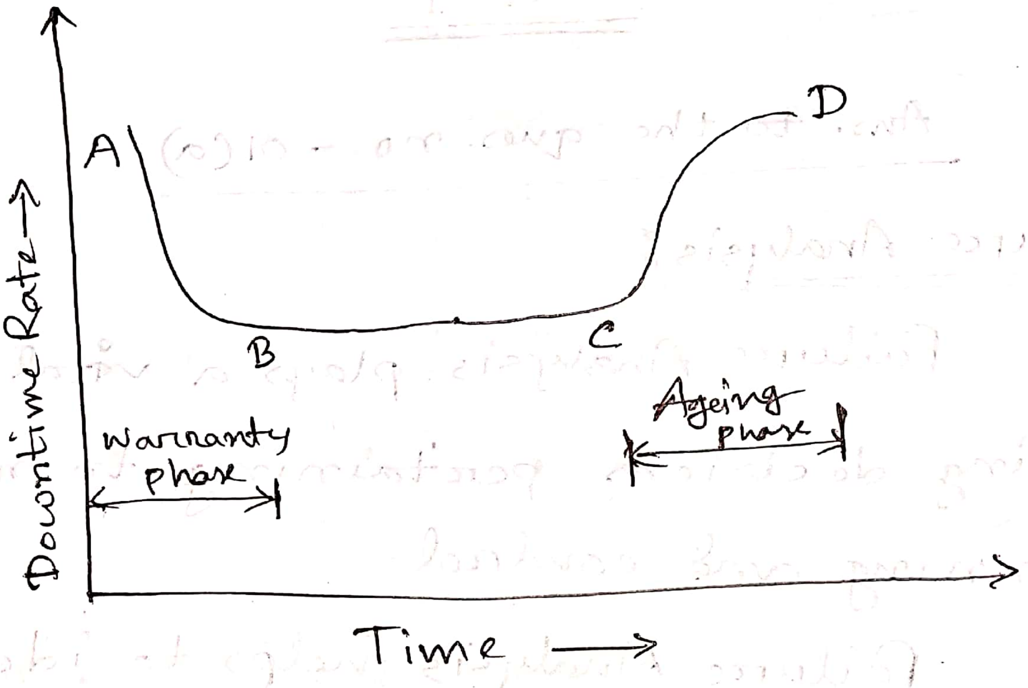


Figure: Bath-tub curve

In the curve the portion (A-B) is called the Infant morality, which is-
New or recently serviced equipment is initially at a higher risk of failure due to break downs, vulnerable or damaged components.

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This is known as "Hyper Exponential" Distribution. This behaviour indicates design and installation defects and is usualy provided with warranty phase to cover this type of failures.

The phase (B-C) is known as "Negative Exponential" Distribution. Here morality rate is very stable and failure risk is near constant.

The phase (C-D) is called "Abnormal Exponential" Distribution, which is - components fail due to ageing and wear-out and the failure risk will increase with operating time.

This is the failure analysis behaviour in all is known as weibull distribution.

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Ans. to the ques. no. - 01 (b)

The objectives of Maintenance Management are shown below:

(1) To maximize the availability and reliability of all assets.

(2) To obtain the maximum possible return on investment.

(3) To extend the life cycle of assets

(4) To ensure the operational readiness of all equipments required at the time of emergency.

(5) To ensure the safety of personnel using facilities.

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## Part - II

### Ans. to the ques. no. - 01(a)

**Financial Management:**

Financial management involves the financial planning, forecasting and provision of finance as well as formulation of financial policies.

According to Weston and Brigham:
" Financial management is an area of financial decision-making, harmonizing individual motives and enterprise goals".

So, Financial management can be a set of Administrative actions which relate to the arrangement of cash and credit to enable the organization to carry out its objectives satisfactorily.

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Ans. to the ques. no.- 01 (b)

The objectives of Financial management at the firm level is given below:

(1) Profit Maximization:

Profit works as a standard for measuring the success or efficiency of a business enterprise. So, the objetive or target is to increase or maximize the profit.

(2) Maximimization of Return:

A basic guideline according to which financial decisions can be evaluated but returns are mainly based on the profits earned by a firm.

(3) Maximization of Wealth:

A basic guideline according to which financial decisions can be evaluated.

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Ans. to the ques. no.- 03 (a)

The foure basic questions that microeconomics theory is concerned with are listed below:

(1) What goods shall be produced and in what quantities?

(2) How shall they be produced?

(3) How the goods and services produced shall be distributed?

(4) How efficiently are the resources being used?

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Ans. to the ques. no.- 03(b)

Explaining the First Question of the basic economics questions below:

The First Question arises due to limited availability of resources. The problem of allocating these resources optimally among the various uses is solved by the market system. The allocation of resources to the production of various goods and services depends upon the prices of various goods and factors of production. Microeconomics

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helps to analyze the relative prices of goods and factors are determined. Since, microeconomic theory is concerned with the price system, it is also called the theory of price.

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