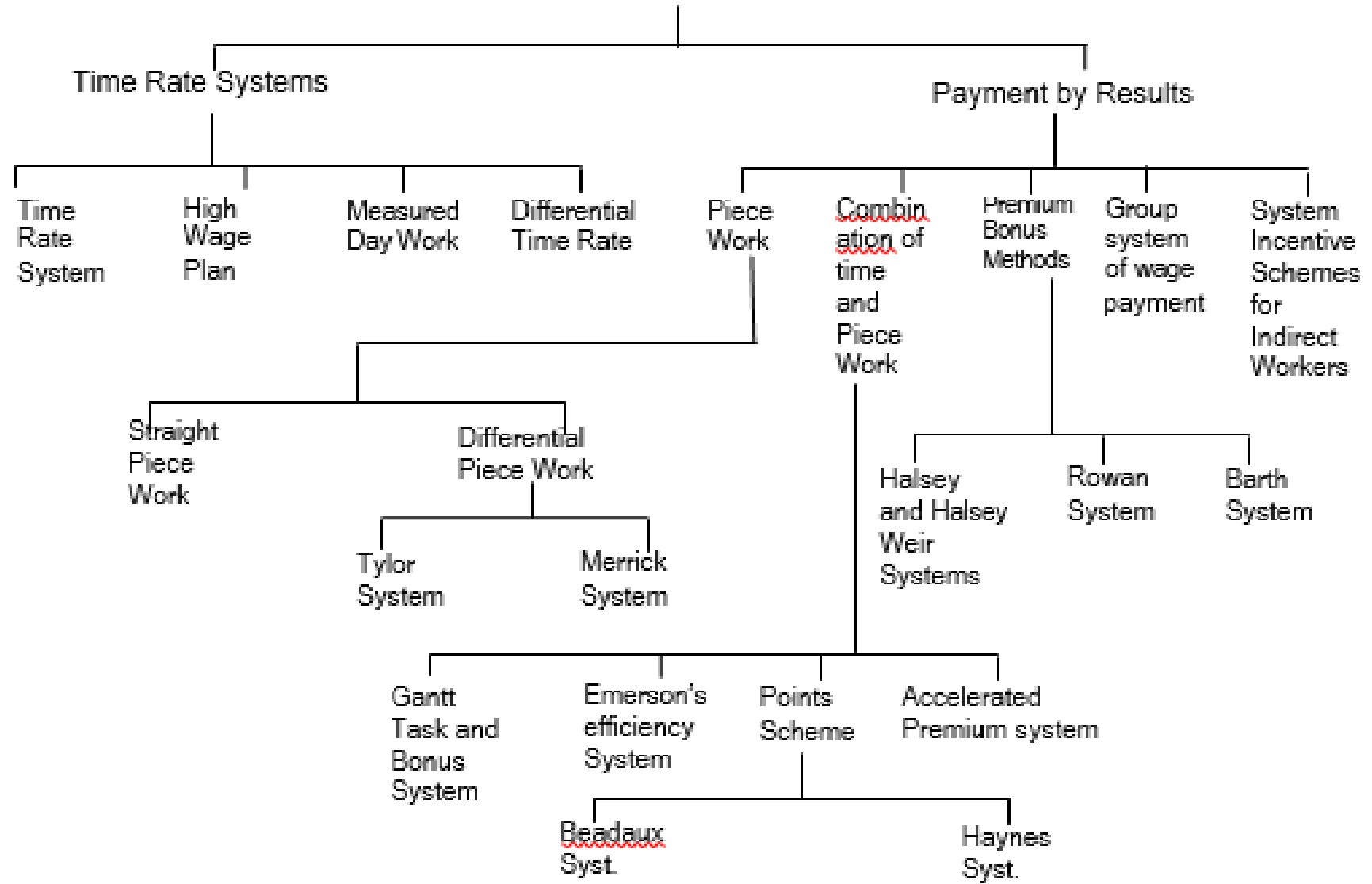# METHODS OF REMUNERATION

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SYSTEMS OF WAGE PAYMENT & INCENTIVES

Time Rate Systems

- Time Rate System
- High Wage Plan
- Measured Day Work
- Differential Time Rate

Payment by Results

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  - Straight Piece Work
  - Differential Piece Work
    - Tylor System
    - Merrick System
      - Gantt Task and Bonus System
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      - Points Scheme
        - Beadaux Syst.
        - Haynes Syst.
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- Combination of time and Piece Work
- Premium Bonus Methods
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A

Time Rate System

- Under this system, the worker is paid by the hour, day, week, or month. The amount of wages due to a worker are arrived at by multiplying the time worked (as shown by the gate card) by the appropriate time rate.

- Persons whose services cannot be directly or tangibly measured, *e.g.*, general helpers, supervisory and clerical staff etc.

- Workers engaged on highly skilled jobs or rendering skilled services, *e.g.*, tool making, inspection and testing.

- Where the pace of output is independent of the operator, *e.g.*, automatic chemical plants.

Merits	Demerits
(i) Simple to understand and to calculate wages.	(i) No monetary incentive to raise the level of production.
(ii) Reduces temptation on the part of workers to increase the output at the cost of quality.	(ii) No distinction between the slow and the efficient worker.
(iii) Unity in labour, no distinction between efficient and inefficient labour due to quality of production.	(iii) The tendency is for the fall in output; this raises the cost per unit (because both labour and fixed expenses will be spread over a smaller number of units).
(iv) Stability in wages	(iv) A firm cannot be sure of labour costs per unit under this method and, hence, may suffer a loss on quotations if already submitted.

Time Rate System

- **Time Rate System**

    Earnings = Hours worked × Rate per hour

From the following prepare a statement showing the cost per day of 8 hours of engaging a particular type of labor

Monthly salary(basic+D.A) = Rs 2000

Leave salary payable to workmen = 5%

Employee contribution to provident fund = 8% of salary items(1&2)

Employee contribution to state fund = 2.5% of salary items(1&2)

Pro-rata expenditure & amenties to labour= Rs 179.50 per head per month

No. of working hours in a month = 200

Solution

10 Friday

Solution for time rate system

Particulars		Amt per
Monthly Salary	Rs 2,000	
Dearness Salary (5% of 2000)	+ 100 1000	
	2100	
Employee Contribution (P.F) 8% of 2100	+ 168	
Employee Contribution (S.I) 2.5% of 2100	+ 52·50	
Amenities to labour	+ 179·50	
Total Cost	Rs 2,500	

Labour Cost per hour = $\dfrac{2,500}{200}$

= Rs 12·50

Labour Cost per day = 8 hrs × 12·50

= Rs 100

High wage plan

This plan was first introduced by Ford Motor Company (in USA) in order to induce workers to exercise extra effort in their work.

■ Under this plan a worker is paid a wage rate which is substantially higher than the rate prevailing in the area or in the industry. In return, he is expected to maintain a very high level of performance, both quantitative and qualitative. As a result, high rate men are not as costly or expensive as they might appear at first sight.

■ High wage plan is suitable where high quality of work and also increased productivity are required.

■ The advantage which may accrue from the implementation of this plan are :

■ It is simple and inexpensive to operate.

■ It helps in attracting highly skilled and efficient workers by providing suitable incentive.

■ It reduces the extent of supervision.

■ Increased productivity may result in reduction of unit labour cost.

Measured day work

- *According to this method the hourly rate of the time worker consists of two parts viz, fixed and variable. The fixed element is based on the nature of the job*

- *i.e.* the rate for this part is fixed on the basis of job requirements. The variable portion varies for

- each worker depending upon his merit rating and the cost of living index. The aggregate of fixed and variable part for a day is termed as Measured day's work rate of a worker.

- As the rate is based on two different elements, there are separate time rates not only for each worker but also for each job. This method does not find much favour with workers due to the following:

- The rates fixed are not easily understood by the workers.

- Merit rating tends to be arbitrary and unless changed at rapid intervals, the ratings will not reflect the correct ranking of the qualities of a worker.

Differential time rate

- *According to this method, different hourly rates are fixed for different levels of efficiency. Up to a certain level of efficiency the normal time or day rate is paid. Based on efficiency level the hourly rate increases gradually. The following table shows different differential rates :*

- Up to, say 75% efficiency   Normal (say ` N per hr.)

- From 76% to 80% efficiency   1.10 × N

- From 81% to 90% efficiency   1.20 × N

- From 91% to 100% efficiency   1.30 × N

- From 101% to 120% efficiency 1.40 × N

- As this method is linked with the output and efficiency of workers, therefore, it cannot be strictly called as a time rate method of wage payment. This method in fact is similar to differential piece work system.

Payment by result

- Under this system the payment made has a direct relationship with the output given by a worker.

- The attendance of the worker or the time taken by him for doing a job has no bearing on the payment. The system of payment by results may be classified into the following four categories:

- Systems in which the payment of wages is directly proportionate to the output given by workers.

- Systems in which the proportion of the wage payment to the worker increases progressively with increase in production.

- Systems in which payment rate decreases with the increase in output.

- Systems with earnings varying in proportions which differ at different levels of production.

- The piece rate system can be classified into

- Straight piece rates, piece rates with graduated time rates and differential piece rates

Straight piece work system

- Under this system of wage payment, each operation, job or unit of production is termed a piece. A rate of payment, known as the piece rate or piece work rate is fixed for each piece.

- The wages of the worker depend upon his output and rate of each unit of output; it is in fact independent of the time taken by him. The wages paid to a worker are calculated as :

- Wages Earned = number of units produced x rate per unit

Differential piece work system

- This system provide for higher rewards to more efficient workers. The main feature of all differential piece-work systems is that several piece rates on a slab scale are fixed for a job or operation which is put on piece-work.

- For different levels of output below and above the standard, different piece rates are applicable. Taylor Differential Piece Work System and Merrick Differential Piece Rate System are two important differential piece work systems discussed briefly as below:

- *Taylor's differential piece work system*

- *Merrick Differential Piece Rate System*

Differential piece work system

- ***Taylor's differential piece work system***

- F.W.Taylor, introduced this method on the basis of time, motion & fatigue studies. He thought to improvethe efficiency of worker by suggesting two rates of payment of wages.

- A higher rate to the worker who produce equal or more than the standard fixed for production.

- a lower rate to the worker who do not achieve the standard

Differential piece work system

- **Merrick Differential Piece Rate System**

- Under this system three piece rates for a job are fixed. None of the fixed rates is below the normal.

- These three piece rates are as below:

- *Efficiency   Piece rate applicable*

- Upto 83%   Normal rate,

- Above 83% and upto 100%   10% above normal rate.

- Above 100%   20% or 30% above normal rate.

- This system is an improvement over Taylor's Differential Piece Rate System

Premium Bonus Methods

■ Under these methods, standard time is established for performing a job.

■ The worker is guaranteed his daily wages , if his output is below and upto standard. In case the task is completed in less than the standard time, the saved time is shared between the employee and the employer.

■ There are two types of time-sharing plans in use *viz.,* constant sharing plans and variable sharing plans.

■ Halsey and Halsey Weir Systems (constant sharing plans)

■ Rowan system (variable sharing plans)

Halsey and Halsey Weir Systems

Under *Halsey system* a standard time is fixed for each job or process.

If there is no saving on this standard time allowance, the worker is paid only his day rate.

He gets his time rate even if he exceeds the standard time limit, since his day rate is guaranteed.

If, however, he does the job in less than the standard time, he gets a bonus equal to 50 percent of the wages of time saved; the employer benefits by the other 50 percent. The scheme also is sometimes referred to as the Halsey fifty percent plan.

Formula for calculating **wages under Halsey system**

= Time taken × Time rate + 50% of time saved × Time rate.

The **Halsey Weir System** is the same as the Halsey System except that the bonus paid to workers is 30% of the time saved i.e.

= Time taken × Time rate + 30% of time saved × Time rate.

Rowan system

- According to this system a standard time allowance is fixed for the performance of a job and bonus is paid if time is saved.

- Under Rowan System the bonus is that proportion of the time wages as time saved bears to the standard time.

Formula for calculating wages under Rowan system

$$= \text{Time taken} \times \text{Rate per hour} + \frac{\text{Time Saved}}{\text{Time allowed}} \times \text{Time taken} \times \text{Rate per hour}$$

Barth System

- The formula used for calculating the remuneration under this system is as follows :

$$\text{Earnings} = \text{Hourly rate} \times \sqrt{\text{Standardhours} \times \text{Hours worked}}$$

- The system is particularly suitable for trainees and beginners and also for unskilled workers. The reason is that for low production efficiency, the earnings are higher than in the piece-work system but as the efficiency increases, the rate of increase in the earnings falls.

- This system is not suitable for workers having more than 100% efficiency as it does not provide incentive on working at more than 100% efficiency.

Combination of Time & piece rate system

- Gantt Task and Bonus system

- Emerson's Efficiency System

- Points Scheme : a) Bedeaux System b) Hayne's System

- Accelerated Premium System

Gantt Task and Bonus system

- This system is a combination of time and piece work system.

- According to this system a high standard or task is set and payment is made at time rate to a worker for production below the set standard. If the standards are achieved or exceeded, the payment to the concerned worker is made at a higher piece rate.

- The piece rate fixed under this system also includes an element of bonus the extent of 20%. The figure of bonus to such workers is calculated over the time rate of the workers.

- Thus in its essence, the system consists of paying a worker on time basis if he does not attain the standard and on piece basis if he does.

- It is so fixed, so as to include a bonus of 20% of the piece rate.

Wages payable to workers under this plan are calculated as under:

- *Output*   *Payment*
- Output below standard   Guaranteed time rate.
- Output at standard   Time rate *plus* bonus of 20% (usually) of time rate.
- Output above standard   High piece rate on worker's whole output.

Emerson's Efficiency System

- Under this system minimum time wages are guaranteed. But beyond a certain efficiency level, bonus in addition to minimum day wages is given.

- A worker who is able to attain efficiency, measured by his output equal to 2/3rd of the standard efficiency, or above, is deemed to be an efficient worker deserving encouragement. The scheme thus provides for payment of bonus at a rising scale at various levels of efficiency, ranging from 66.67% to 150%.

The levels are as mentioned below:

- For a performance below 66.67% only time rate wages without any bonus are paid.

- 66⅔% to 100% efficiency, bonus varies between 0.01% and 20%.

- Above 100% efficiency bonus of 20% of basic wages plus 1% for each 1% increase in efficiency is admissible.

- This system is superior to one to the differential piece rate in so far as it encourages the slow worker to do a little better than before. Also it does not pre-suppose a high degree of average performance. Wages on time basis are guaranteed.

Points Scheme a) Bedeaux System

- Under this scheme, firstly the quantum of work that a worker can perform is expressed in Bedeaux points or B's.

- These points represent the standard time in terms of minutes required to perform the job. The standard numbers of points in terms of minutes are ascertained after a careful and detailed analysis of each operation or job.

- Each such minute consists of the time required to complete a fraction of the operation or the job, and also an allowance for rest due to fatigue.

- Workers who are not able to complete tasks allotted to them within the standard time are paid at the normal daily rate.

- Those who are able to improve upon the efficiency rate are paid a bonus, equal to the wages for time saved as indicated by excess of B's earned (standard minutes for work done) over actual time. Workers are paid 75% of the time saved.

Hayne's System

- Under this system also the standard is set in minutes.

- The standard time for the job is expressed in terms of the standard man-minutes called as *"MANIT"*.

- Manit stands for man-minute.

- In the case of repetitive work the time saved is shared between the worker and the foreman in the ratio 5 : 1. If the work is of non-repetitive nature, the worker, the employer and the foreman share the value of time saved in the ratio of 5 : 4 : 1. Each worker is paid according to hourly rate for the time spent by him on the job.