

SCIENTIFIC MANAGEMENT THEORY

1. Who propounded the Scientific Management Theory? → Frederick W. Taylor.
2. Frederick W. Taylor-এর পূর্বে কারা Scientific Management Theory-র methods and techniques তৈরি করেছিলেন? → Charles Babbage, Henri R. Towne, Frederick Halsey and Henry Metcalf.
3. কে কবে প্রথম Scientific Management শব্দটি coin করেছিলেন? → Louise Brandies, 1910 সালে।
4. 'Father of Scientific Management' হিসেবে কে পরিচিত? → Frederick Taylor.
5. Scientific Management আর কী নামে পরিচিত? → Taylorism.
6. Taylor-এর লেখা কোন গ্রন্থগুলিতে তাঁর 'Scientific Management' সমৃদ্ধ হয়েছে?
 - i. A Piece Rate System (1895)
 - ii. Shop Management (1903)
 - iii. Art of Cutting Metals (1906)
 - iv. **Principles of Scientific Management (1911)**
7. Taylor-এর পরে কারা Scientific Management-কে সমৃদ্ধ করেছিলেন তারা? → H. L. Gantt, H. Emerson, F. B. Gilbreth, L. M. Gilbreth, C. G. Barth, S. E. Thompson, M. L. Cooke and H. K. Hathaway.
8. USA থেকে ছড়িয়ে Scientific Management কোন দেশে Stakhanovite Movement-এর রূপ ধারণ করেছিল? → ১৯২০-১৯৪০-এর দশকে সোভিয়েত ইউনিয়নে।
9. Stakhanovite আন্দোলন কি? স্ট্যাখানোভাইট আন্দোলন একটি সোভিয়েত উদ্যোগ ছিল যা 1935 সালে শুরু হয়েছিল, যার নামকরণ করা হয়েছিল আলেক্সেই স্টাখানভ, একজন খনি শ্রমিক যিনি একটি একক শিফটে 14 গুণ কয়লা খনন করেছিলেন। এই আন্দোলনের লক্ষ্য ছিল উচ্চ-কর্মসম্পাদনকারী কর্মীদের পুরস্কৃত করে বোনাস, প্রশংসা এবং সামাজিক মর্যাদা বৃদ্ধির মতো প্রণোদনা দিয়ে কর্মীদের উৎপাদনশীলতা এবং দক্ষতা বৃদ্ধি করা। স্ট্যাখানোভাইট সমাজতান্ত্রিক অনুকরণের প্রতীক হয়ে ওঠে

এবং বিভিন্ন শিল্পে উচ্চ স্তরের উৎপাদনশীলতা অর্জনের জন্য অন্যদের অনুসরণ করার জন্য উদাহরণ হিসাবে প্রচারিত হয়েছিল।

10. Scientific Management aimed at studying the relationship between the physical nature of work and the physiological nature of workmen.
11. Scientific Management stressed upon specialization, predictability, technical competence and rationality for improving the organizational efficiency and economy.
12. Taylor came across a 'soldering' phenomenon, that is, a tendency on the part of workers to restrict the output.
13. He classified this phenomenon into two kinds, viz., **natural soldering and systematic soldering.**
14. Taylor based his theory of scientific management on **three assumptions** –
 - i. The organizational functioning can be improved with the application of scientific methods.
 - ii. A good worker is one who does not initiate action, but accepts the orders of the management.
 - iii. Every worker is an '**economic man**', that is, he is motivated by monetary factors.
15. Taylor gave **four principles** of scientific management –
 - i. Develop a science for each element of a man's work, which replaces the old '**rule-of-thumb**' method.
 - ii. Scientifically select and then train, teach and develop workmen.
 - iii. Management should fully cooperate with workers.

iv. There must be equal division of work and responsibility between management and workmen.

এইভাবে তিনি – i. Science, not rule of thumb ii. Harmony, not discord iii. Cooperation, not individualism iv. Maximum output, in place of restricted output v. The development of each man to his greatest efficiency and prosperity.

16. Scientific Management talk about the ‘**Mental Revolution**’.

17. According to Taylor, the principle object of **management should be to secure maximum prosperity for the employer**, coupled with maximum prosperity for each employee.

18. কে বলেছিলেন – ‘By maximizing the productive efficiency of each worker, scientific management would also maximise the earnings of workers and employers. Hence, all conflict between capital and labour would be resolved by the findings of science.’? → Reinhard Bendix তাঁর ‘Work and Authority in Industry’ গ্রন্থে।

19. Taylor-এর মতে Scientific Management-এর বৈশিষ্ট্যগুলিকে facilities করে এমন কতকগুলি Techniques চিহ্নিত করা যায়। সেগুলি কী কী? →

⇒ **Functional Foremanship (Supervision by eight functional foreman)**

⇒ **Motion Study (Standardisation of work method)**

⇒ **Time Study (determine of standard time of completion of work. Use of Stop Watch)**

⇒ **Differential Piece Rate Plan (pay by piece rate based on motion and time)**

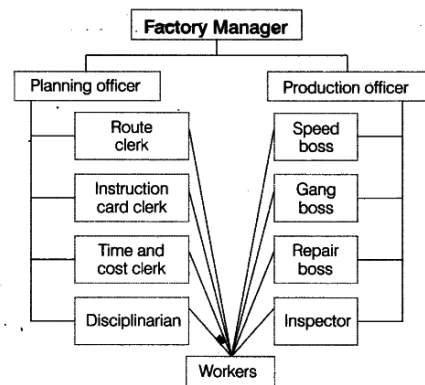
⇒ **Exception Principle (Reward and Penalty)**

এছাড়াও তিনি আরও কতকগুলি Techniques-এর কথা বলেছিলেন –

- i. **The Standardisation of all tools** and implements used in the trade, as well as in the acts or movements of workers;
- ii. The mnemonic systems for **classifying manufactured** product;
- iii. The setting up of a separate planning cell or department;
- iv. The use of time saving implements like **slide rules**;
- v. **Modern Cost System**;
- vi. **Instruction Cards for the worker.**

20. Taylor rejected the system of single foremanship (also known as unity of command or linear system or military type of organization) under which a worker receives order from only one supervisor.

21. Taylor eight functional foreman-কে দুটি ভাগে ভাগ করেছিলেন এবং বলেছিলেন একটি ভাগ Planning করবে এবং Planning Room-এ বসবে। এবং অন্য গ্রুপটি Plan Execution and service on the shop floor-এর জন্য responsible থাকবে।



22. Incentive Pay, Bonus-এর কথা বলেছিলেন Taylor-এর follower H. L. Gantt. Gantt, Habits of Industry-এর উপরও জোর দিয়েছিলেন।

23. Frank Gilbert and Lillian Gilbreth:

- ⇒ Flow Process Chart
- ⇒ This chart is also called 'Speed work'
- ⇒ Laid the foundation of modern motion and time study.
- ⇒ Invented Therbligs.

24. Emerson:

- ⇒ Emphasised on the “great productivity of correct organization”.
- ⇒ Propounded twelve principles of efficiency.
- ⇒ His popular books are ‘Efficiency’ and ‘The Twelve Principles of Efficiency’.
- ⇒ He preferred to call his system as **efficiency system** rather than scientific management.

25. Criticism gained from different perspectives:

- ⇒ It did not stress the integration and coordination of higher levels of the organization;
- ⇒ Neglected the human side of the organization;
- ⇒ Underestimated and oversimplified human motivation by material rewards;
- ⇒ Did not emphasized the social and psychological aspects of motivation. It is ‘monistic theory’ of motivation (criticism from Elton Mayo another human relationists and behaviouralists like M. P. Follet, Peter Drucker, Oliver Sheldon, Chester Barnard and Chris Argyris).
- ⇒ **It was criticized as ‘Physiological Organization Theory’ by March and Simon in the book ‘Organizations’.**
- ⇒ Received the greatest opposition from the labour leaders (Trade Union).
- ⇒ It was also criticized by the Managers as their loss of judgement and increase of responsibility.