Reg. No. : | | | | | | | | | | |

Question Paper Code: 58766

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

One credit course

Mechanical Engineering

15UME866 - WORK STUDY

(Regulation 2015)

Duration: 1.30 hours Maximum: 50 Marks

Answer ALL Questions

PART A - (20 x 1 = 20 Marks)

1. Method study also called as_____

(a) Work Study (b) Motion Study (c) S.I.M.O chart (d) None of the above

2. Every organization tries to achieve best quality production in _____

(a) Max. Time (b) Min. Possible time (c) Const. Time (d) None of the above

3. _____study at finding the best way of doing a job.

(a) Method Study (a) Motion Study (c) A & B (d) None of the above

4. _____ defined as the application of different techniques to measure and establish the time required to complete the job by a qualified worker at a defined level of performance. The time necessary to complete a job is determined form no. of observations.

(a) Work Study (b) Motion Study (c) Time Study (d) None of the above

5. Work Measurement also called as

(a) Work Study (b) Motion Study (c) Time study (d) None of the above

6. _____ is a generic term for those techniques particularly 'Method Study' and 'Work Measurement' which are used in the examination of human work in all its contexts and which leads systematically to the investigation of all the factors which effect the efficiently of the situation being reviewed, in order to seek improvements.

(a) Work Study (b) Motion Study (c) S.I.M.O chart (d) None of the above

7. Work study applications is/are_____

(a) Industries (b) Design (c) Material Handling (d) All of the above

8. Principles of _____used to be employed even long ago, in order to explore improvements, when industry was simple and involved lesser problems; of course a systematic procedure was not there.

(a) Work Study (b) Motion Study (c) Time Study (d) None of the above

9. _____ the new method, i.e., ensure the proper functioning of the installed method by periodic checks and verifications.

(a) Install (b) Record (c) Develop (d) Maintain

10. _____ Involves three phases, namely-planning, arranging and implementing.

(a) Install (b) Record (c) Develop (d) Maintain

11. A chart representing a process may be called as a

(a) Flow Diagram (a) Process chart (a) A & B (a) None of the above

12. _____are used to describe the basic elements of movements or functional hand motions of the work cycle.

(a) Work Study (b) Motion Study (c) Time study (d) Therbligs

13. _____is represented by a symbol, a definite colour and with a word or two to record the same.

(a) Work Study (b) Motion Study (c) Time study (d) Therbligs

14. _____ chart is generally used for micromotion analysis of short cycle repetitive jobs, High order skill jobs, and finds applications in jobs like component assembly, packaging, repetitive use of jigs and fixtures, inspection, etc.

(a) Flow Diagram (b) Process chart (c) S.I.M.O chart (d) Therbligs

15. _____shows relationship between the different limps of an operator; for expel, at any instant it can be found what one hand is doing with respect to other, in terms of therbligs.

(a) Flow Diagram (b) Process chart (c) S.I.M.O chart (d) Therbligs

16. _____are added to the normal time in order to arrive at standard time.

(a) Performance Rating (b) Allowance (c) Work sampling (d) Motion study

17. _____ a better method of doing a job is one which consumes min. of time and energy in performing limp(hand, leg, foot, arm, etc.,) motions in order to complete the task and this possible only, by economizing the use of motions.

(a) Flow Diagram (b) Motion economy (c) S.I.M.O chart (d) Therbligs

18. The objectives of the study of_____ is to optimize the integration of man and machine in order to increase work rate and accuracy.

(a) Ergonomics (b) Motion economy (c) S.I.M.O chart (d) Therbligs

19. Good plant layout objectives is/are_____

(a) Material handling and transportation is minimized and efficiently controlled.

(b) Work stations are designed suitably and properly.

(c) The movements made by the workers are minimized.

(d) All the above

20. The cost which decide the locational economy are those of

(a) Land (b) Building/Rent (c) Labour (d) All of the above

21. _____is Topography, area , the shape of the site, cost drainage and other facilities, the probability of floods, earthquakes(from the past History) etc. ,influence the selection of plant location.

(a) Land (b) Building/Rent (c) Labour (d) All of the above

22. Process layout is also called as

(a) Functional Layout (b) Production layout (c) Plant Layout (d) All of the above

23. _____is characterterised by keeping similar machines or similar operations at one location.

(a) Functional Layout (b) Production layout (c) Plant Layout (d) All of the above

24. _____design affects the production rates, efficiency and the accuracy with which an operation can be performed.

(a) Product Design (b) Work Station Design (c) Layout Design (d) All of the above

25. _____not only needs space for the worker and the machine , there are plenty of other items which also need accommodation.

(a) Product Design (b) Work Station Design (c) Layout Design (d) All of the above

26. _____can tell what percentage of the working day, a person spends how, i.e., for how much time he works, what time he spends he expends for this personal needs and for long he remains idle.

(a) Time Study (b) Method Study (c) Layout Design (d) Motion study

27. A worker can not work continuously like a machine and hence such allowance are provided to him in order to satisfy his personal needs and to recover from the physiological and psychological efforts of energy spent while performing an operation under existing working conditions.

(a) Performance Rating (b) Allowance

(c) Personal and Rest allowance (d) Motion study

28. Performance rating techniques is/are

(a) Speed rating and Objective rating (b) Skill and effort rating

(c) Synthetic rating (d) All of the above

29. _____ means gauging and comparing the pace rate or the performance of a worker against a standard performance level set by the time study engineer

(a) Performance Rating (b) Method Study (c) Work sampling (d) Motion study

30. _____can tell what percentage of the working day, a person spends how, i.e., for how much time he works, what time he spends he expends for this personal needs and for long he remains idle.

(a) Performance Rating (b) Method Study (c) Work sampling (d) Motion study

PART – B (2 x 10= 20 Marks)

31. (a) Explain the application of Ergonomics in details. (10)

Or

(b) Explain in details of Principle of Motion economy. (10)

32. (a) Explain the Plant layout Procedure. (10)

Or

(b) Explain the various types of Allowances. (10)