Reg. No. :

Question Paper Code: 50783

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

ONE CREDIT COURSE

Mechanical Engineering

15UME866 - WORK STUDY

(Regulation 2015)

Duration: One hour

Maximum: 50 Marks

Answer ALL Questions

PART A - $(30 \times 1 = 30 \text{ Marks})$

1. _____ Investigates the work done in an organization and it aims at finding the best and most efficient way of using available resources.

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

- 2. Every organization tries to achieve best quality production in
 - (a) Max. Time (b) Min. Possible time (c) Const. Time (d) None
- 3. Method study also called as
 - (a) Work Study (b) Motion Study (c) S.I.M.O chart (d) None

4. ______ study at finding the best way of doing a job.

- (a) Method Study (b) Motion Study (b) both (a) and (b) (d) None
- 5. _____ is generally achieved by eliminating unnecessary motions involved in a certain procedure or by changing the sequence of operation or the process itself.

(a) Method Study (b) Motion Study (b) both (a) and (b) (d) None

- 6. Work Measurement also called as
 - (a) Work Study (b) Motion Study (c) Time Study (d) None
- 7. _____ will find the time allowed to complete the job by that procedure.
 - (a) Work Study (b) Motion Study (c) Time Study (d) None

8. _____ 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
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9. 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

10. Work study applications is/are

(a) Industries	(b) Design	(c) Material Handling	(d) All
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- 11. Advantages of Work Study is/are
 - (a) Uniform and improved production flow (b) Reduced Manufacturing Costs
 - (c) Fast and Accurate delivery dates (d) All the above
- 12. Objective of Method Study is/are
 - (a) Improved working process and standardized procedures
 - (b) Less fatigue to operators
 - (c) Better Product quality
 - (d) All the above

13. Objectives of Work Measurement is/are

- (a) Determine the time required to do a job; thus it compares alternatively methods and establishes the fastest method
- (b) Decides man power required for a job; it helps in man power economy
- (c) Decides equipment requirements
- (d) All the above
- 14. _____ all the relevant information's pertaining to the existing method (if any) in details and in the form of a chart to obtain a more clear picture about the same.

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

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

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

- 16. _____ 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

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

(a) Flow Diagram (b) Process chart (c) both (a) and (b) (d) None

18. Process chart types is/are

(a) Outline Process chart	(b) Flow Process chart
(c) Two Handed Process Chart	(d) All

19. _____ is a drawing or a diagram which is drawn to scale. It shows the relative position of production machinery, jigs, fixtures, etc., and marks paths followed by men (workers) and materials.

(a) Flow Diagram (b) Process chart (c) both (a) and (b) (d) None

20. _____ 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

21. _____ 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

22. _____ Chart is generally used for micro motion 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

23. ______ 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

24. _____ 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

25. Principle of Motion economy is/are

- (a) Rules Concerning Human Body
- (b) Rules Concerning Work place layout and Material handling
- (c) Rules Concerning Tools and Equipment Design
- (d) All the above

26. 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

27. Application of Ergonomics is /are

(a) Work environments (b) The workplace (c) Other areas (d) All

28. _____ are complementary and try to fit the job to the workers; however, Ergonomics adequately takes care of factors governing physical and mental strains.

(a) Ergonomics (b) Motion economy (c) Work Study (d) both (a) and (c)

- 29. Analysis of an operation when carried out in terms of individual motion of a workers is known as
 - (a) Ergonomics (b) Motion Analysis (c) Work Study (d) both (a) and (c)

30. A plant is a place, where ______ is/are brought together for manufacturing products.

(a) Men (b) Materials (c) Money and Equipment (d) All

PART - B $(2 \times 10 = 20 \text{ Marks})$

31. (a) Explain the step vise procedure for method study. (20)

Or

(b) Explain in details of principle of motion economy.	(20)
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32. (a) Explain the various types of allowances. (20)

Or

(b) Explain the plant layout procedure. (20)