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Question Paper Code: 58766

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

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)

- Method study also called as _____
(a) Work Study (b) Motion Study (c) S.I.M.O chart (d) None of the above
- Every organization tries to achieve best quality production in _____
(a) Max. Time (b) Min. Possible time (c) Const. Time (d) None of the above
- _____ study at finding the best way of doing a job.
(a) Method Study (a) Motion Study (c) A & B (d) None of the above
- _____ 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 from no. of observations.
(a) Work Study (b) Motion Study (c) Time Study (d) None of the above
- Work Measurement also called as
(a) Work Study (b) Motion Study (c) Time study (d) None of the above
- _____ 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 limbs 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 limb(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)