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**Question Paper Code: 98764**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2025

One credit course

Mechanical Engineering

19UME864 - WORK STUDY

(Regulation 2019)

Duration: 1.30 hours

Maximum: 30 Marks

Answer ALL Questions

PART A - (10x 1 = 10 Marks)

1. A work study application is/are \_\_\_\_\_ CO1-U  
(a) Industries (b) Design (c) Material Handling (d) All the above
2. \_\_\_\_\_ are used to describe the basic elements of movements or functional hand motions of the work cycle. CO1-U  
(a) Work Study (b) Motion Study (c) Time Study (d) Therbligs
3. \_\_\_\_\_ 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. CO1-U  
(a) Flow Diagram (b) Process chart (c) S.I.M.O chart (d) Therbligs
4. Process layout is also called as..... CO2-U  
(a) Functional Layout (b) Production layout  
(c) Plant Layout (d) All of the above
5. \_\_\_\_\_ are added to the normal time in order to arrive at standard time. CO1-U  
(a) Performance Rating (b) Work sampling (c) Allowance (d) Motion study
6. The costs which decide the locational economy are those of..... CO2-U  
(a) Land (b) Building/Rent (c) Labour (d) All of the above

7. The objectives of the study of..... is to optimize the integration of man and machine in Order to increase work rate and accuracy . CO1-U  
 (a) Ergonomics (b) Motion economy (c) S.I.M.O chart (d) Therbligs
8. An Alternate between the Urban and Rural areas is the ..... which being a compromise between the two is probably the most suitable. It possesses the good points of both Urban and Rural locations. CO2-U  
 (a) Urban Site (b) Suburban site (c) Metro Site (d) All of the above
9. Good plant layout objectives is/are\_\_\_\_\_ CO2-U  
 (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
10. Factors affecting plant layout is/are\_\_\_\_\_ CO2-U  
 (a) The components/products to be manufactured.  
 (b) The volume of production and hence the volume of raw material and in process inventory to be handled.  
 (c) The operation needed to be done on each product.  
 (d) All the above.

PART – B (1 x 20 = 20 Marks)

11. (a) Explain the step wise procedure for Method Study CO1-U (20)  
 Or  
 (b) Explain the various types of Allowances in detail. CO1-U (20)