Roll No ...

ME - 701(D)
B.E. VII Semester
Examination, December 2015
Work Study And Ergonomics

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

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1. a) What are the objectives of work study?
   b) Write the various stages of method study.
   c) What do you understand by standard time?
   d) What are Therbligs? Example their importance. Give name explanation and symbol of each Therbligs.

OR

Describe 'micro-motion study'. Give few suitable examples of its application. Why it has been used as such at accelerated rate in recent year?

2. a) What are the various methods used for rating?
   b) What are the limitations of rating?
   c) Give the specimen of "Time study sheet".
   d) Describe the procedure of Time study using stop-watch method.

OR

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Discuss the need to provide for various allowances in determination of standard time.

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3. a) Write the stages in 'Job Analysis'.
   b) Give the name of four accepted system of job evaluation.
   c) Distinguish between merit rating and Job merit rating.
   d) Discuss briefly the Taylor's piece rate system. What are its advantages and disadvantages over Merrick's differential piece system.

OR

Write brief note on following -

i) Gantt incentive plan

ii) MOST

4. a) Define Ergonomics.
   b) Name the factor considered for designing of work place.
   c) What is work area planning?
   d) Discuss the man machine system and explain its characteristics.

OR

Discuss various factors related to work environment.

5. a) What is Graphic display?
   b) What are the various type of visual display?
   c) What are warning signals? What is its importance?
   d) Explain the principles of auditory and tactile display.

OR

What is visual indicators? How indicators differ from displays? Explain with suitable examples.

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