## **SUBJECT CODE :- 142**

## **FACULTY OF ENGINEERING AND TECHNOLOGY**

## B.E. (Mechanical) Examination Nov/Dec 2015 Industrial Engineering[Elective-II] (Revised)

[Time: Three Hours] [Max. Marks: 80]

N.B	"Please check whether you have got the right question paper."  i) Solve any three questions from both the section.  ii) Figures to the right indicate full marks.  iii) Assume suitable data wherever required and state it clearly.  SECTION- A	
Q.1	A What are the benefits and expectations of various stakeholders from productivity?  B Define work study. What are the components of work study?	05 04
Q.2	C Describe the various ways to improve productivity.  A Write down the relationship between  i) Work study and the management. Ii) Work study and the workers	04 06
	B How is the job selected for method study?	07
Q.3	A Describe briefly 'SIMO Chart' and state its application B Explain in brief:- i) Flow diagram and ii) Two handed process chart	04 06
	C Define micro motion study and state its objective.	03
Q.4	A State and explain the various allowances to be considered while estimating the standard time B Describe the point method of job evaluation with its advantages.	07 06
Q.5	Write short note on the following (any two) i) Differentiate between job evaluation and merit rating ii) Principles of motion economy related to use of human body iii) Breaking the job into elements	14
	SECTION-B	
Q.6	A Explain method time measurement (MTM) technique for work measurement. Also discuss conventions for recording MTM data.  P. Why it is required to rate the worker? What are different rating methods?	07 06
	B Why it is required to rate the worker? What are different rating methods?	06
Q.7	A Explain synthetic rating and analytical estimating techniques.	06
	B Describe the seven types of waste that can be costly to a production system.	07
Q.8	A What do you understand by a 'man-machine system'? How these systems are classified?  B Explain Toyota production system.	06 07
Q.9	A Compare the working system of JIT and MRP.	06
	B How set up time can be reduced by using single minute exchange of dies (SMED) technique? Explain.	07
Q.10	OA What are the implications of quality control for kaizen? Discuss.	04
	B Highlight the Japanese perceptions of job function by involving kaizen and innovation.	05
	C Explain the concept and functions of Kanban system.	05