

Model Question Paper-1 with effect from 2019-20 (CBCS Scheme)

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**Fourth Semester B.E. Degree Examination 18IM46
Work Study and Ergonomics**

TIME: 03 Hours**Max. Marks: 100**

Note: Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	Marks
Q.01	a	Explain the concept of productivity with an example	L2	5
	b	Explain the factors considered for improving Productivity.	L2	5
	c	With a neat block diagram explain how manufacturing job is made up?	L2	10
OR				
Q.02	a	Define Work-study. Explain the steps involved in Work Study procedure.	L2	10
	b	Explain the relationship between i) Work study and worker ii) Work study and management.	L2	10
Module-2				
Q. 03	a	Explain the factors considered for selecting a job during Method study.	L2	6
	b	Explain the Principles of motion economy as related to use of human body and arrangement of workplace layout.	L2	10
	c	List the differences between Cycle graph and Chronocyclegraph.	L2	4
OR				
Q.04	a	Develop Questioning technique in method study with an example.	L3	10
	b	Identify the different types of charts and explain them in brief.	L3	10
Module-3				
Q. 05	a	Define Work Measurement. Explain the techniques of Work measurement with an example	L6	10
	b	Explain the step by step procedure to carry out work sampling.	L6	10
OR				
Q. 06	a	Define Time study. Explain the step by step procedure to carry out time study.	L2	10
	b	Explain the need of providing allowance and explain any four types of Allowances.	L2	10
Module-4				
Q. 07	a	Explain about Human factors and areas covered under Ergonomics.	L2	10
	b	Explain about Perception and Memory with respect to Cognitive Ergonomics.	L2	10
OR				
Q. 08	a	Explain the need of Anthropometry in Physical ergonomics.	L2	5
	b	Explain the relationship between morphology of design and cognitive abilities of human being.	L2	10
	c	Explain about biomechanical characteristics with respect to physical ergonomics.	L2	5
Module-5				
Q. 09	a	Discuss about Man Machine interaction cycle with a neat block diagram	L6	10

	b	Discuss about Quantitative and Qualitative type of displays with examples.	L6	10
OR				
Q. 10	a	Explain the concept of illumination and angle of view with respect to displays and controls.	L2	10
	b	Explain the different types of controls with neat sketches.	L2	10