

Model Question Paper-2 with effect from 2019-20 (CBCS Scheme)

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Fourth Semester B.E. Degree Examination
Work Study and Ergonomics

18IM46

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 about Basic Work content ,Minimum work content and total work content with neat sketch	L2	10
	b	Explain the role of management in raising the productivity of Organization with neat sketch.	L2	10
OR				
Q.02	a	Define Work Study. Explain the objectives and scope of work study.	L2	10
	b	Explain productivity of land, materials and men.	L2	5
	c	List and Explain any four reasons for lower productivity.	L2	5
Module-2				
Q. 03	a	Make use of the concept of micro motion study and Explain the Procedure for micro motion study.	L3	10
	b	Construct Outline Process Chart for Signing a letter. (Assume data)	L3	10
OR				
Q.04	a	Define Therblings and list the various therblings along with symbol, colour and code.	L2	10
	b	Explain Principles of motion economy with relation to use of human body and arrangement of workplace layout.	L2	10
Module-3				
Q. 05	a	Explain different methods of determining sample size and explain any one of them.	L5	10
	b	The observed time is recorded to be 15 mints for a job done by a worker whose rating is 80. Following allowances are recommended by the management: i) Personal needs allowance – 5% of Basic time ii) Basic Fatigue allowance - 2% of basic time. iii) Contingency work allowance -1% of basic time iv) Contingency delay allowance – 2% of Basic time. Determine basic time and standard time.	L5	10
OR				
Q. 06	a	Explain the benefits of dividing a job into various work elements	L2	5
	b	Define Rating and explain any three systems of rating	L2	11
	c	Explain about PMTS.	L2	4
Module-4				
Q. 07	a	Explain about Industrial design and Graphics form Ergonomics point of view.	L6	10
	b	Explain about reasoning and mental work load concept in cognitive ergonomics.	L6	10
OR				

Q. 08	a	Explain the development of stress in human body and its consequences	L6	10
	b	Explain about motor response and decision making with examples.	L6	10
Module-5				
Q. 09	a	With neat sketches explain in brief different types of displays.	L6	10
	b	Discuss the factors that control the choice of display.	L6	10
OR				
Q. 10	a	With a neat block diagram explain the different components of Man machine system.	L6	10
	b	Explain the integration of displays and controls with neat diagram	L6	10