

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2021****Subject Code:3151509****Date:17/12/2021****Subject Name:Work System design and Ergonomics****Time:02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

Q.1	(a) Explain concept of productivity.	03
	(b) Enlist different productivity measurement models and explain any one.	04
	(c) Briefly explain factors influencing productivity.	07
Q.2	(a) What are the causes of low productivity?	03
	(b) Explain basic concept of work study.	04
	(c) Briefly explain steps involved in work study.	07
OR		
	(c) Explain techniques of work study.	07
Q.3	(a) Explain basic concept of method study.	03
	(b) Enlist different recording techniques.	04
	(c) Explain Operation Process Chart with suitable example.	07
OR		
Q.3	(a) What is Micro motion study?	03
	(b) Write a short note on Therbligs.	04
	(c) Explain Flow Process Chart with suitable example.	07
Q.4	(a) What is Flow process chart?	03
	(b) Explain string diagram with suitable example.	04
	(c) Write a note on Critical Examination.	07
OR		
Q.4	(a) Explain basic concept of work measurement.	03
	(b) Write a short note on Cycle graph and Chrono cycle graph .	04
	(c) Write a note on Time Study Equipments.	07
Q.5	(a) What is Performance Rating?	03
	(b) Explain procedure of work sampling.	04
	(c) Write a note on Allowances in work measurement.	07
OR		
Q.5	(a) Explain basic concept of Ergonomics.	03
	(b) Explain characteristics of man – machine system.	04
	(c) Write a note on Anthropometry.	07
