

Name :
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**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
07 THRISSUR CLUSTER**

**FIRST SEMESTER M.TECH. DEGREE EXAMINATION MARCH 2021
DEPARTMENT OF MECHANICAL ENGINEERING
INDUSTRIAL ENGINEERING AND MANAGEMENT
07 ME 6403 WORK SYSTEM DESIGN**

Time:3 hours

Max.Marks: 60

Answer all six questions. Part 'a' of each question is compulsory.

Answer either part 'b' or part 'c' of each question

Q.no.	Module 1	Marks
1a	What is the influence of method and Time study on production activities?	4
	Answer b or c	
b	Give a brief description about productivity.	5
c	Define the concept of work content and techniques to reduce it.	5
Q.no.	Module 2	Marks
2a	What are the filming operations to be studied in micro motion study?	4
	Answer b or co	
b	What are the advantages of film over direct observation?	5
c	How we analyze the data from the film?	5
Q.no.	Module 3	Marks
3a	What is wage incentive plans and mention its main objectives?	4
	Answer b or c	
b	What is compensation schemes and mention its objectives?	5
c	Describe different types of compensation schemes with example?	5

Q.no.	Module 4	Marks
4a	What are the 2 frequently used methods for developing standard allowance data?	4

Answer b or c

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| b | Define rating? What is the importance of rating during Time study? | 5 |
| c | What are the 4 basic work measurement techniques used and explain each? | 5 |

Q.no.	Module 5	Marks
5a	List out the various methods used to analyze a person's posture	5

Answer b or c

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| b | Write a note on body mechanics and its importance | 7 |
| c | What are the fundamental principles of ergonomics for better work performance | 7 |

Q.no.	Module 6	Marks
6a	In what ways can the reliability of a system be improved	5

Answer b or c

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| b | Prior to workers' compensation, what three common law conditions were used by employers to disqualify an injured worker from receiving benefits | 7 |
| c | Given $P(A)=0.6$, $P(B)=0.7$, $P(C)=0.8$, $P(D)=0.9$, $P(E)=0.1$ and independent events, determine $P(T)$ for <ul style="list-style-type: none"> a. $T = AB + AC + DE$ b. $T = A + ABC + DE$ c. $T = ABD + BC + E$ d. $T = A + B + CDE$ e. $T = ABC + BCD + CDE$ | 7 |