B. E. CONSTRUCTION ENGINEERING 4TH YEAR 2ND SEMESTER - 2023 SUBJECT: Construction Quality & Safety Management

Time: Three hours

(50 Marks for each Part) Use separate answer script for each Part Full Marks: 100

PART I (50 Marks)

Answer all the questions

4+6+4= 14

- 1.(CO1): A) Define the purpose for quality control & assurance in construction process.
 - B) Elaborate the factors of Total Quality Management (TQM) in the construction industry.
 - C) Discuss the construction process with flow chart of construction process.
- 2. (CO2): A) Define PDCA Cycle as a tool for quality management.

4+12=16

- B) Discuss the components /activities of P,D,C & A.
- 3. (CO2): A) Define Responsibility Matrix.

4+12+4=20

- B) Explain RACI Matrix. Define how a RACI Matrix is created.
- C) Describe the benefits of RACI Matrix for Quality Audit system.

[Turn over

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Part II (50 Marks)

.,	Question No.		Marks
CO3 [20]		Answer any two from question (1), question (2) and question (3) in this block	
	Q1.	Why is it necessary to form a safety committee at site?	4+4+2
		Who should comprise the safety committee?	
		Who should be the head of the safety committee and why?	
	Q2.	What do you understand by Risk in the context of construction work?	2+5+3
		Why the construction work is considered as Risky as compared to manufacturing / production in Factory?	
		What is the importance of training to ensure safety in construction?	
	Q3.	Discuss the different measures that can be taken to avoid accidents due to fire at construction site.	10
CO4 [10]		Answer any one from question (4) and question (5) in this block	
	Q4.	Mention the different personal protective equipment and their specific uses.	10
	Q5.	Discuss the following.	10
		i) Safety helmets	
		ii) Full body harness	
CO5 [20]	Q6.	Describe the function of the following in connection with CUP Lock scaffolding.	10
		i) Standard ii) Ledger iii) Intermediate Transom	
	Q7.	What are the general requirements as regards to scaffolding from safety point of view?	10
		What are the precautions to be taken while erecting scaffolding at construction site?	