

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

M.E DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Third Semester

Construction Engineering and Management

CN4013 - Quality Control and Assurance in Construction

Regulations - 2021

Duration : 3 Hrs

Maximum: 100 Marks

PART - A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Define the term quality.	RE	1	2
2.	Name any two factors that influence construction quality.	RE	1	2
3.	Identify the purpose of ISO 9000 family of standards.	UN	2	2
4.	What are the key components of a quality system?	RE	2	2
5.	Define consumer satisfaction in the context of construction projects.	RE	3	2
6.	What is statistical tolerance?	RE	3	2
7.	Identify the regulatory objective in construction quality management.	UN	4	2
8.	Compare reliability coefficient and reliability prediction.	UN	4	2
9.	What are the factors to be considered while selecting a new material for construction?	UN	5	2
10.	List any two factors that influence environmental safety in construction.	UN	5	2

PART - B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Discuss about the various dimensions of quality in construction with their relevance to successful project delivery.	UN	1	13
	Or			
	b Illustrate the various stages of quality process. Explain each stage.	UN	1	13
12.	a i Outline on the history and evolution of quality standards.	UN	2	08
	ii Label the key requirements of ISO 9000 family of standards.	UN	2	05
	Or			
	b i Illustrate about the hierarchy of documentation in a quality management system.	UN	2	08
	ii Outline the advantages of quality related training.	UN	2	05
13.	a Summarize the importance of a quality policy and quality objectives in the construction industry.	AN	3	13
	Or			
	b Explain the principles of TQM and how they can be applied to improve quality in the construction industry.	AN	3	13

14.	a	Classify the methods and techniques used in QA and QC in construction projects.	AN	4	13
		Or			
	b i	Outline the role of AQL and LTPD for determining quality standards in construction projects.	AN	4	08
	ii	Explain about failure rate analysis in construction projects.	AN	4	05
15.	a i	Discuss the importance of drawings, detailing, and specifications in ensuring quality in construction projects.	UN	5	08
	ii	Outline a note on the role of standardization in construction.	UN	5	05
		Or			
	b i	Summarize the concept of life cycle costing.	UN	5	08
	ii	Show, how bid preparation and standardization contribute to success in construction projects.	UN	5	05

*PART - C (Marks 1*15 = 15)*

<i>Q.No</i>		<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	Discuss the roles and responsibilities of various stakeholders in maintaining quality in construction projects with an example.	AP	01	15
		Or			
	b i	With help of neat sketches, Explain the structure of a QA/QC program in construction.	AP	03	08
	ii	Select the process and importance of value engineering in construction.	AP	05	07