

Reg. No.

प्रज्ञानं ब्रह्म



INSPIRED BY LIFE

Manipal Institute of Technology, Manipal

(A Constituent Institute of Manipal University)



III SEMESTER M.TECH END SEMESTER EXAMINATIONS, MAY /JUNE

2016

SUBJECT: Construction Quality Management [CIE 570]
REVISED CREDIT SYSTEM

Time: 3 Hours

12/05/2016

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer any **FIVE FULL** questions.
- ❖ Missing data may be suitable assumed.

1A.	Differentiate any SIX quality elements between Quality management and TQM.								03	
1B.	Briefly explain any four Quality gurus opinion concerning quality								02	
1C.	What is cost of Quality? Explain with a neat sketch the Economic conformance model.								05	
2A.	Explain the different components of TQM axioms.								04	
2B.	What is a Flow chart? In an assembly plant paint defects were found to be as follows:								04	
	Defect type	Dirt in paint	sag	Orange peel	Thin paint	Sealer under	scratch	Off-colour		other
	No of defects	65	21	12	5	4	2	2		1
	Construct a pareto chart and find out which type of defect would be considered as the highest priority									
2C.	Explain any two steps involved in preparing a CQMP.								02	
3A.	Write a short note on Kaizen. Explain any two applications of Kano model.								04	
3B.	Mention any five differences between Quality Control and Quality Assurance								02	
3C.	What are-the advantages of SPC? During a production process total number of defectives were found to be 175. Compute, p_{avg} and control limits assuming sample size of 15 and $n=100$. Management wants to develop a p-chart using 3-sigma limits								04	
4A.	Explain process capability analysis with an example showing all the indices								05	
4B.	Write a note on the hierarchy of measurement framework								02	
4C.	What is a Run chart? A construction firm received an average of 15 complaints per month last year. In November they received 20 complaints Management sets an acceptable level at 2. It costs the company \$75 directly per complaint to correct the problems. They determined the cost in lost sales to be \$150. Total cost per complaint: \$200. Determine the quality loss function.								03	
5A.	Explain any two tool used for Design development Mention the barriers involved in implementing Six sigma principles.								04	

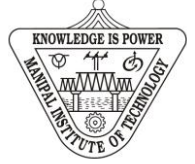
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5B.	Define the term “house of Quality”. Mention any five benefits of using Quality Management systems	04
5C.	Are ISO 9001 and QMS the same? Justify.	02
6A.	Explain the PDCA cycle for ISO 14001 environmental management systems	04
6B.	Write a short note on (i) Human resource policies (ii) Pyramid of change	04
6C.	Mention any four FEIGENBAUM philosophy on Quality control.	02