

Reg.No. _____



Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – Nov/Dec – 2016

Code : **14ME3037**
Sub. Name : **Quality concepts in design**

Semester : **2016-17 ODD**
Duration : **3hrs**
Max. marks : **100**

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	Highlight the basic concepts in Quality engineering and management.	CO1	10
	b.	Elaborate the concept of Total Quality Management with suitable examples.	CO2	10
(OR)				
2.	a.	Explain about Quality engineering and Six sigma with a suitable case study.	CO1	10
	b.	Describe about frequency distributions and histograms. State their applications.	CO2	10
3.	a.	Illustrate the Test of Hypothesis with an example.	CO3	10
	b.	Explain the DMAIC process for design improvement.	CO3	10
(OR)				
4.	a.	Elaborate the Acceptance Sampling method with suitable examples.	CO2	10
	b.	Explain briefly Statistical Process Control.	CO2	10
5.	a.	Describe Process Capability with neat sketches.	CO2	10
	b.	Expand and describe APQP.	CO2	10
(OR)				
6.	a.	Explain about EVOP with neat block diagrams.	CO3	10
	b.	Recall Quality Function Deployment with a case study.	CO2	10
7.	a.	Describe briefly Gage Reproducibility and Repeatability.	CO3	10
	b.	Compare Fractional, Full and Orthogonal Experiments with suitable examples.	CO3	10
(OR)				
8.	a.	Explain briefly Taguchi methods for robust design.	CO3	10
	b.	Explain the Failure mode effect analysis with a neat block diagram.	CO3	10
		<u>Compulsory:</u>		
9.	a.	Elaborate about the fundamentals of Reliability theory.	CO4	10
	b.	Expand ANOVA. Highlight its applications with examples.	CO3	10

ALL THE BEST