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.	Explain about Six sigma with a suitable case study.	CO1	10
	b.	Elaborate the applications of Total Quality Management.	CO2	10
		(OR)		
2.	a.	Highlight the basic concepts in Quality engineering and management.	CO1	10
	b.	Describe about histograms and frequency distributions. State their advantages.	CO2	10
3.	a.	Explain briefly Statistical Process Control and control charts.	CO3	10
	b.	Explain the DMAIC process for process improvement with neat sketches.	CO3	10
		(OR)		
4.	a.	Elaborate the Acceptance Sampling method with suitable examples.	CO2	10
	b.	Illustrate the Hypothesis testing with an example.	CO2	10
5.	a.	Describe Failure mode effect analysis with neat sketches.	CO2	10
	b.	Explain about EVOP with neat block diagrams.	CO2	10
		(OR)		
6.	a.	Explain briefly about Embodiment design.	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 Weibull distribution with a neat sketches.	CO4	10
		Compulsory:		
9.	a.	Elaborate about MTBF in Reliability theory.	CO4	10
	b.	Explain about Lean production. Highlight its advantages with examples.	CO3	10

ALL THE BEST