DOE-01/9/16.

Subject: ***Software Engineering*** / Code IT- 3003/**Branch: CS & IT /Semester:5th** /2016

Mid-Term Examination Aug, 2016

School of Computer Engineering, KIIT University

Time: 2 Hours ***Full Marks: 25***

Answer 5(Five) questions including Q.1 which is compulsory

1.	(a)	What is meant by the term *life cycle model* of software development. ?	1 x5
	(b)	Differentiate between *Heuristic* and *Empirical* methods of software effort estimation.	
	(c)	What is meant by structured programming ?	
	(d)	What is meant by a software process ? What is the difference between a methodology and a process ?	
	(e)	If the *phase containment of errors* principle is not followed during software development, then would the development cost increase ? Justify your answer.	
2.	(a)	Discuss the evolution of software engineering techniques over the years.	2.5
	(b)	Describe the Delphi cost estimation technique.	2.5
3	(a)	Explain the different phases of the classical waterfall model. Identify the phase in which maximum effort is required?	2.5
	(b)	Discuss the circumstances under which the following Software development models would be appropriate (i) Waterfall model (ii) Prototyping model (iii) Incremental Model (iv) Spiral Model.	2.5
4	(a)	Differentiate among basic COCOMO , intermediate COCOMO and complete COCOMO models .	2.5
	(b)	Assume that the size of an organic type software product has been estimated to be 32,000 lines of source code. Assume the average salary of software engineers to be Rs. 35,000/- per month. Estimate the nominal (i) cost and (ii) time to develop the software product. *[Values of parameters: Effort (2.4, 1.05); Time (2.5, 0.38)]*	2.5
5	(a)	List the major responsibilities of a software project manager.	2.5
	(b)	Discuss the different ways in which project teams are organized.	2.5
6	(a)	Differentiate between *functional* and *non-functional* requirements, giving examples from the operation of an ATM.	2.5
	(b)	Describe the various purposes for which the SRS document can be used.	2.5
7	Write short notes on ***any two***		2.5x 2
	(a)	Risk Management	
	(b)	Software Configuration Management	
	(c)	RAD model	
	(d)	Function Point Metric	
	(e)	Project Scheduling	