End Semester Special BACK Examination

Name of the Course: <u>BCA</u>   *Semester: III*

Name of the Paper: Software Engineering   *Paper Code* : TBC 305

Time: 3 Hour's   Maximum Marks: 100

Note:

    (i)   **All the questions are compulsory.**

    (ii)   Answer any two sub questions among a, b and c in each main question.

    (iii) Total 10 marks in each question carries 10 marks.

Q1	(10 x 2 = 20 Marks)	
(a)	Explain various characteristics of a software. Explain role of software in current scenario.	
(b)	Give the definition of Software engineering as per IEEE. Explain Spiral model.	
(c)	Discuss the necessary components of a computer software? Justify the statement *"Software are developed not manufactured"*.	CO1
Q2	(10 x 2 = 20 Marks)	
(a)	During software development, what types of problems are face by software engineers What do you mean by software crises?	CO2
(b)	Describe Waterfall model with its merits and demerits. Compare it with Prototype model of software development.	
(c)	What precautions should be taken to write a good SRS? Explain of a good SRS?	
Q3	(10 x 2 = 20 Marks);	
(a)	Interpret the characteristics of OOPs	
(b)	Differentiate between Structured Programming and Object based programming. Which one is better to handle current world problems?	
(c)	Why documentation is an important step in software development. Define various types of documents that are prepared during software development.	CO3
Q4	(10 x 2 = 20 Marks)	
(a)	Discuss People, Product, Process, and Project in relation with software project management.	CO4
(b)	Focus on the importance of software reliability. Discuss various reliability issues.	
(c)	Discuss software quality. With respect to modern software development, explain software quality factors.	
Q5	(10 x 2 = 20 Marks)	
(a)	Differentiate between Expert Judgement & Delphi Cost estimation methods.	
(b)	Judge the importance of risk assessment in software development. Differentiate between Reactive approaches & Reactive approaches of risk management	
(c)	Assume that the size of an organic type software product has been estimated to be 42,000 lines of source code. Assume that the average salary of software engineers be Rs. 10,000/- per month. Determine the effort required to develop the software product and the nominal development time.	CO5