CLASS: IMSC   SEMISTER: VII
BRANCH: MATH & COMP.   SESSION : MO/18

SUBJECT: CS6109 SOFTWARE ENGINEERING
TIME: 3:00 HRS.   FULL MARKS: 60

INSTRUCTIONS:
1. The question paper contains 7 questions each of 12 marks and total 84 marks.
2. Candidates may attempt any 5 questions maximum of 60 marks.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a)   Compare Incremental and Waterfall Process Model. Explain Incremental Model in details.   [6]
Q.1(b)   Explain Software Engineering as a Layered Technology.   [6]

Q.2(a)   Write a Short note on Risk Management.   [6]
Q.2(b)   Describe four Ps for Project Management and explain any three in detail.   [6]

Q.3(a)   Define Requirements Engineering. List and explain Requirements Engineering Tasks.   [6]
Q.3(b)   What is Software Requirement Specification (SRS)? Why is it important? List the characteristic of a   [6]
          good quality SRS? What contents can we include in it?

Q.4(a)   Explain Software design levels. Explain Coupling and cohesion with their types.   [6]
Q.4(b)   Draw context diagram and data flow diagram (DFD) for Library Management System.   [6]

Q.5(a)   What is software verification and validation? Differentiate Black Box and White Box Testing. [6]
Q.5(b)   Consider a project with the following functional units :   [6]
          Number of user inputs = 50
          Number of user outputs = 40
          Number of user enquiries = 35
          Number of user files = 06
          Number of external interfaces = 04
          Assuming all complexity adjustment factors and weighing factors as average. Then calculate
          Function Point for the project. **AVERAGE characteristic weight** = 3

Functional Units	Weighing Factors		
	Low	Average	High
EI	3	4	6
EO	4	5	7
EQ	3	4	6
ILF	7	10	15
EIF	5	7	10

Table1 : Function Point complexity weights

Q.6(a)   Explain five levels of SEI-CMM.   [6]
Q.6(b)   Write Short note on COCOMO model.   [6]

Q.7(a)   Define types of maintenance and maintenance activities.   [6]
Q.7(b)   Write a short note on ReEngineering.   [6]

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