CBCS SCHEME

18SFC334

Third Semester M.Tech. Degree Examination, Dec.2019/Jan.2020
Software Metrics and Quality Assurance

Time: 3 hrs.   Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1	a.	Illustrate the difference between validity and reliability with an example.	(10 Marks)
	b.	Demonstrate checklist plays a significant role in software development.	(10 Marks)

OR

2	a.	Why Irhikawa's tool? Explain poroto chart and scatter diagram in detail.	(10 Marks)
	b.	Explain four software quality metrics in detail.	(10 Marks)

Module-2

3	a.	What is software quality? Explain popular view and quality views.	(10 Marks)
	b.	Explain Rayleigh Model Basic Assumption and Implementation.	(10 Marks)

OR

4	a.	Explain Total Quality Management (TQM) and its key elements with neat diagram.	(10 Marks)
	b.	Explain Histogram, control chart and cause and effect diagram.	(10 Marks)

Module-3

5	a.	Explain cyclomatic complexity and its use with a suitable example and diagram.	(10 Marks)
	b.	Explain the relationship between OOPs metrics and rules of thumbs by lorenz.	(10 Marks)

OR

6	a.	Explain the dimensions of productivity concept with diagram.	(10 Marks)
	b.	Illustrate the six metrics of oo (object oriented) design and complexity.	(10 Marks)

Module-4

7	a.	Demonstrate that Fan-In and Fan-Out in structure metrics are most common design structure with an example.	(10 Marks)
	b.	Explain the measurement of system availability, reliability and collecting customer outage data for quality improvement.	(10 Marks)

OR

8	a.	Mention and describe Zohron's Generic Phases and main activities of software process assessment.	(10 Marks)
	b.	Explain capability maturity module in detail.	(10 Marks)

Module-5

9	a.	List and describe the checklist of items to be verified during compliance and various factors does it identifier.	(10 Marks)
	b.	With neat diagram explain the proposed software project assessment method.	(10 Marks)

OR

10	a.	Describe the points to be considered by organization to achieve reliability goals.	(10 Marks)
	b.	Justify and demonstrate that "measuring levels is not enough" in process improvement.	(10 Marks)

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