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**MCA**  
**(SEM IV) THEORY EXAMINATION 2021-22**  
**SOFTWARE QUALITY ENGINEERING**

**Time: 3 Hours****Total Marks: 100****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****2 x 10 = 20**

Qno.	Question	Marks	CO
a.	Explain the term Software Quality.	2	1
b.	Explain the different types of software review.	2	1
c.	Define the term Quality Assurance.	2	2
d.	Explain function points.	2	2
e.	What do you understand by software measurement?	2	3
f.	Discuss hierarchical model of quality?	2	3
g.	Write a short note on origins of defects.	2	4
h.	What is Benchmarking?	2	4
i.	Differentiate between Fix-quality and Software quality.	2	5
j.	What are the requirements of customer problem metrics?	2	5

**SECTION B****2. Attempt any three of the following:****3 x 10 =30**

Qno.	Question	Marks	CO
a.	Explain the following terms: i. Fault ii. Failure iii. Defects rate iv. Defect preventions	10	1
b.	What is Net Satisfaction Index (NSI)? Describe with example.	10	2
c.	Why quality estimation is required? How one can use this tool to estimate the cost of the project?	10	3
d.	Define Verification and Validation activities associated with V-Model.	10	4
e.	What are various CASE tools? Explain advantages of CASE tools.	10	5

**SECTION C****3. Attempt any one part of the following:****1 x 10 =10**

Qno.	Question	Marks	CO
a.	Discuss the various quality planning goal and quality plan benefits.	10	1
b.	Software reliability is important issue of measuring quality comment?	10	1



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**4. Attempt any one part of the following:****1 x 10 =10**

Qno.	Question	Marks	CO
a.	Explain with proper graph delayed Sand inflection S models?	10	2
b.	How to measure customer satisfaction metrics? Explain with example.	10	2

**5. Attempt any one part of the following:****1 x 10 =10**

Qno.	Question	Marks	CO
a.	Discuss the Rayleigh model of software quality management?	10	3
b.	Explain Pre-QA activities, In-QA activities and Post-QA activities in detail.	10	3

**6. Attempt any one part of the following:****1 x 10 =10**

Qno.	Question	Marks	CO
a.	Explain Six Sigma concept in detail with suitable example.	10	4
b.	Explain Boehm's quality model and its characteristics.	10	4

**7. Attempt any one part of the following:****1 x 10 =10**

Qno.	Question	Marks	CO
a.	Is it possible to assess the quality of software if the customer keeps changing? What it is supposed to do?	10	5
b.	Explain the testing tools. Describe the characteristics of modern testing tools.	10	5