Code No.: CS405PC | R20 | H.T.No. | | | 8 | R | | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
II–B.TECH–II–Semester End Examinations (Supply) - July- 2024
SOFTWARE ENGINEERING
(Common to CSE, IT)

[Time: 3 Hours] **[Max. Marks: 70]**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A **(20 Marks)**

1. a) Define software engineering. [2M]
   b) Differentiate verification and validation. Give an example. [2M]
   c) Define feasibility study. And list the types. [2M]
   d) What is system requirements? [2M]
   e) What do you infer from the design quality attributes 'FURPS'? [2M]
   f) Explain building blocks of UML. [2M]
   g) What are the generic characteristics of software testing? [2M]
   h) What is flow graph notation and show how it is important in white box testing? [2M]
   i) Difference between Reactive Vs proactive risk strategies? [2M]
   j) What is software quality assurance [2M]

PART-B **(50 Marks)**

2. Define software life cycle. List all life cycle models and explain incremental process model with a neat diagram [10M]

OR

3. Discuss about the role of Changing Nature of Software and Software myths in software engineering [10M]

4. A) Explain the Functional and non-functional requirements in requirement engineering [5M]
   B) Discuss the various steps in requirement engineering process. What are the work products of engineering the requirements? [5M]

OR

5. What is SRS Document? Explain in detail about the structure of a software requirement document [10M]

6. Explain about the various design concepts considered during design? [10M]

OR

7. Differentiate architecture design and design phases of SDLC? [10M]

8. A) Summarize various testing strategies for conventional software? [5M]
   B) Explain different software product metrics. [5M]

OR

9. Distinguish between black box and white box testing by taking an example software application of your choice [10M]

10. What is the need of Risk Management and explain various activities connected to Risk Management? [10M]

OR

11. A) Describe about the measures of reliability and safety in software quality assurance. [6M]
    B) Analyze about the ISO 9000 quality standards [4M]

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