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Roll No 0810CA220014.

## MCADD-505

M.C.A. (Integrated), V Semester

Examination, December 2024

Software Engineering

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain iterative waterfall and spiral model for software life cycle and discuss various activities in each phase?  
b) Discuss about failure curves for hardware and software with a neat diagram.
2. a) Discuss the evolving role of software in light of present day software applications?  
b) "Non-functional requirements are also essential for customer satisfaction"- Justify this statement with suitable justification.
3. a) Explain the ways and means for collecting the software requirements and how are they organized and represented.  
b) What is requirement elicitation, and why is it important in software development? Describe the main phases of the requirement elicitation process.
4. a) Explain how breakdown structure is used in software engineering. Discuss how software project scheduling helps in timely release of a product?  
b) What is the need of Risk Management and explain various activities connected to Risk Management?



5.
  - a) What is modularity and write its importance by keeping maximization of cohesion and minimization of coupling as the basis?
  - b) What are the key parameters and inputs used in the COCOMO model for estimating software development costs.
6.
  - a) Describe the various risk mitigation strategies that can be employed in the RMMM process.
  - b) Examine the various methodologies and frameworks associated with rapid software development.
7.
  - a) What is meant by Software Quality? Give an overview of various software Quality factors.
  - b) Distinguish between black box and white box testing by taking an example software application of your choice.
8.
  - a) Discuss the importance of effective staffing in achieving organizational goals.
  - b) Write short notes :
    - i) CMMI
    - ii) Software Quality

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