QP CODE: 23501026

23501026

Reg No : .....

Name : .....

I.M.C.A DEGRE EXAMINATION, NOVEMBER 2023

Fifth Semester

Integrated MCA

CORE - IMCA5C05 - SOFTWARE ENGINEERING AND PROJECT MANAGEMENT

2020 Admission Onwards

D9348D94

Time: 3 Hours Maximum: 75 Marks

Part A

*Answer any **ten** questions*

*Each question carries **3** marks*

1. What are the key stages of the software development life cycle (SDLC)?
2. What is the CMMI (Capability Maturity Model Integration), and how does it assess processes?
3. How does a perspective process model tailor the software development process?
4. What is a use case, and how does it relate to functional requirements?
5. Why is planning considered the foundation of effective project management?
6. Name two common cost-benefit evaluation techniques used in project assessment.
7. Explain incremental project development model
8. What are the advantages of selecting the most appropriate process model for project delivery?
9. How can historical data be used to improve software effort estimation accuracy
10. How does the expert judgment technique work in software effort estimation?
11. What is the pupose of hazard identification and analysis
12. What is risk management in software project management?

(10×3=30 marks)

Part B

*Answer **all** questions*

*Each question carries **9** marks*

13. a) Write an essay on the differences between waterfall and agile methodologies in the software development process, highlighting their advantages and disadvantages.

OR

b) Define the concept of perspective process models in software engineering.

14. a) Explain the role of use cases in software development and their significance in capturing and understanding system functionality. Provide examples of how use cases are used to model different aspects of a software system.

OR

b) Explore the technical assessment aspect of project evaluation. How do technical feasibility and viability impact the decision to proceed with a project?

15. a) Describe the spiral model in software development. What are its key phases and how does it differ from other traditional software development models?

OR

b) Explain software prototype model in software development.

16. a) Explain the concept of function points and how they are used in software effort estimation.

OR

b) Compare and contrast Function Point Analysis with other software measurement techniques, such as Lines of Code (LOC) or object Points.

17. a) Explain the concept of a PERT chart and its significance in project scheduling.

OR

b) Draw and explain network planning models

(5×9=45 marks)