QP Code: R253F003 | Reg. No | | | | | | | | | | | AY 24

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

M.C.A. (Third Semester – Regular & Supplementary) Examinations, November – 2025

MCA23303 – Software Engineering

Time: 2 hrs | Maximum: 60 Marks

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. List out the disadvantages of spiral model	CO1	K1
b. Discuss about requirement validation?	CO2	K1
c. Define feasibility study and list the types.	CO3	K1
d. What are RMMM plans are there in software engineering?	CO5	K1
e. Give a note on role of testing in software development.	CO4	K1

PART – B **(10 x5=50 Marks)**

Answer ***ALL*** questions	Marks	CO #	Blooms Level
2. a. Describe the different stages of prototype model with diagram.	5	CO1	K1
b. Explain briefly about the V2 model with neat sketch.	5	CO1	K2
(OR)			
c. Discuss in detail about user interface design patterns with an example.	5	CO3	K3
d. Explain briefly about different common design issues in user interface design.	5	CO3	K2
3.a. Describe with the help of the diagram discuss in detail waterfall model. Give certain reasons for its failure	5	CO1	K1
b. Explain the use of incremental process model with neat diagram.	5	CO1	K2
(OR)			
c. What is requirement? Give the measures to validate the requirements of software system?	5	CO2	K2
d. Discuss in detail about non-functional requirements with an example.	5	CO2	K2
4.a. Discuss about the details of requirement engineering process.	5	CO2	K2
b. Discuss briefly how requirement validation is done.	5	CO2	K2
(OR)			
c. Explain about various software implementation techniques.	5	CO4	K3
d. What is testing? Discuss in detail about Black-Box testing.	5	CO4	K2
5.a. Explain the importance of component level design and deployment level design elements.	5	CO3	K3
b. What is software architecture? Why it is important explain with an example.	5	CO3	K2
(OR)			
c. Explain the reactive and proactive risk strategies?	5	CO5	K2
d. Discuss regarding different types of software reviews and technical reviews?	5	CO5	K1
6.a. Describe the role of acceptance testing in modern software development methodology.	5	CO4	K3
b. Why testing is required in software development? Describe alpha and beta testing with suitable example.	5	CO4	K2
(OR)			
c. Short notes: - i. Software review, ii. Risk Projection	5	CO5	K1
d. Short notes: - i. Software Quality Assurance, ii. Software Reliability	5	CO5	K3