

FACULTY OF ENGINEERING

B.E. CSE (AI& ML) IV-semester (AICTE) (Backlog) (New) Examination, February/ March 2023

Subject: Software Engineering

Time: 3 Hours

Max. Marks: 70

Note: (i) First question is compulsory and answer any four questions from the remaining Six questions. Each Questions carries 14 Marks.

(ii) Answer to each question must be written at one place only and in the same order as they occur in the question paper.

(iii) Missing data, if any, may be suitably assumed.

1. a) Explain software capability and describe how is CMM framework useful for it?
b) What are the five generic framework activities?
c) Define Analysis pattern? Explain its standard template.
d) Explain the characteristics exhibited by good design?
e) Enumerate the Golden Rules of User Interface Design.
f) What is a critical Module? Why is it necessary to identify critical Module?
g) What is the requirement of different levels of Testing?
2. a) Explain various Specialized Process Models with example.
b) Discuss any three Agile Process Models.
3. a) Discuss any five principles of coding. What are the various things that have to Kept in mind before writing the code.
b) List various requirements engineering tasks. Explain about inception in detail.
4. a) Explain the process of translating the analysis model into design model?
b) What is Pattern based Software design? Describe any two pattern known to you in addition to a General pattern template?
5. a) Elaborate the Design Evaluation life cycle with a neat diagram.
b) Describe the steps involved in conducting Component level Design with an example.
6. a) Explain a suitable overall strategy for S/W testing for conventional S/W architectures?
b) Explain in detail about white box testing along with a flow graph notation example.
7. a) Explain in detail about the CRC modeling.
b) What is meant by structural complexity of a program? Write a metric for measuring structural complexity of a program?
