



NP – 434

IV Semester B.C.A. Examination, July/August 2024

(NEP)

COMPUTER SCIENCE

4.1 : Software Engineering

Time : 2½ Hours

Max. Marks : 60

Instruction : Answer *all* the Parts.

PART – A

I. Answer **any four** questions. **Each** question carries **two** marks : (4×2=8)

- 1) What is software engineering ?
- 2) Why feasibility study is important in a project ?
- 3) What is problem decomposition ?
- 4) What is earned value analysis ?
- 5) Define verification and validation.
- 6) What is baseline in software configuration management ?

PART – B

II. Answer **any 4** questions. **Each** question carries **five** marks : (4×5=20)

- 7) Explain classical waterfall model.
- 8) What are the stages in Agile process model ? Explain.
- 9) Explain 4 P's management spectrum.
- 10) What are the steps involved in unit-test procedures in conventional software ?
- 11) Explain software project scheduling process.
- 12) What is Software Configuration and Software Configuration Items (SCI) ?

P.T.O.



PART – C

III. Answer **any four** questions. **Each** question carries **eight** marks : (4×8=32)

- 13) When to choose spiral model and explain the model in detail with a diagram. 8
- 14) a) What is extreme programming (XP) ? Explain the XP process. 4
- b) What are functional requirements ? Explain the ways of representing the functional requirements. 4
- 15) a) Explain clean room process model. 4
- b) Explain forward reengineering. 4
- 16) a) What is black box testing and explain the levels of black box testing. 4
- b) Explain W5HH principles. 4
- 17) a) Explain the classification of software risk based on identifiability and predictability. 4
- b) Why the software should be maintained ? 4
- 18) a) Explain the process for Software Process Improvement (SPI). 4
- b) What is the purpose of 'SCM' repository ? 4
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