



NP – 320

29
IV Semester B.C.A. Examination, Aug./Sept. 2023

(NEP Scheme)

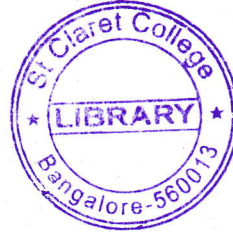
COMPUTER SCIENCE

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) Define software engineering.
 - 2) List the four core agile values.
 - 3) What is problem decomposition ?
 - 4) Why smoke testing is beneficial ?
 - 5) What is prototyping ?
 - 6) Explain Software Process Improvement (SPI).

PART – B

- II. Answer **any 4** questions. **Each** question carries **five** marks. **(4×5=20)**
- 7) Explain waterfall model in detail.
 - 8) What are the agile principles of agile software development ?
 - 9) Describe the various types of box structure specification.
 - 10) What are the 4P's of management spectrum ?
 - 11) Which are the different factors that affect the project scheduling ?
 - 12) Explain Software Configuration Management (SCM).

P.T.O.



PART – C

- III. Answer **any four** questions. **Each** question carries **eight** marks. (4×8=32)
- 13) Explain spiral model in detail with a diagram. 8
- 14) a) How are requirements gathered using various methods ?
b) What is Scrum ? Explain Scrum events. (4+4)
- 15) a) Explain W5HH principles for project management.
b) Explain unit testing in detail for conventional software. (3+5)
- 16) a) Explain clean room process model.
b) Mention White Box Testing in detail. (4+4)
- 17) a) Explain software risk and its classification.
b) What is re-engineering ? Explain the process of it. (4+4)
- 18) a) What is Software Process Improvement (SPI) process ?
b) Explain maturity levels in people CMM. (4+4)