



WEST BENGAL STATE UNIVERSITY
B.A./B.Sc. Honours 4th Semester Examination, 2021

CMAACOR10T-COMPUTER APPLICATION (CC10)

SOFTWARE ENGINEERING

Time Allotted: 2 Hours

Full Marks: 50

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

Question No. 1 is compulsory. In addition answer any *five* from the rest

1. Answer any *five* from the following: 2×5 = 10
 - (a) What is software crisis?
 - (b) What is CMMI?
 - (c) What is Unit Testing?
 - (d) Explain the unit “man-hour” in context to effort estimation.
 - (e) What are the benefits of prototyping?
 - (f) What is feasibility study?
 - (g) What are the characteristics of software?
 - (h) Differentiate between an error and a failure.
 - (i) Distinguish between a Program and a Software.
2. (a) What is Function Point (FP) metric? Briefly explain the different aspects that constitute the calculation of FP. 6
(b) What is LOC? 2
3. (a) Explain the Prototyping Model with a schematic diagram. 4
(b) Differentiate prototyping and iterative waterfall model. 4
4. (a) List the major responsibilities of a software project manager. 4
(b) What is COCOMO? 2
(c) What is meant by the size of a software project? 2

5. (a) Write the activities of software quality management. 4
(b) Write the benefits of Software Quality Assurance (SQA). 4
6. (a) What are the steps followed in testing? 5
(b) Distinguish between Alpha testing and Beta testing. 3
7. (a) Discuss the different stages of 'Capability Maturity Model'. 4
(b) What is Software Process Framework? 2
(c) What are Umbrella activities? 2
8. (a) What is reverse software engineering? 2
(b) Why SRS is required? What are the characteristics of a good SRS? 2+4
9. Write short notes on (any *two*): 4×2 = 8
(a) Black Box Testing vs. White Box Testing
(b) Cohesion vs. Coupling
(c) Verification vs. Validation
(d) Stress Testing.

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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