



WEST BENGAL STATE UNIVERSITY
B.Sc. Programme 6th Semester Examination, 2021



MSGDSE03T-COMPUTER SCIENCE (DSE2)

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.*

1. Answer any **five** questions from the following: 2×5 = 10
- (a) What is the prime objective of software engineering?
 - (b) Why software engineering approach is important to developing software?
 - (c) What are the advantages of using a life cycle model?
 - (d) What is integration testing?
 - (e) Distinguish between Physical and Logical DFD.
 - (f) Distinguish between Software Verification and Software Validation.
 - (g) What do you mean by unit testing?
 - (h) What is the importance of software design?

Answer any five questions from the following

8×5 = 40

2. (a) What do you mean by feasibility study? 2
- (b) What are the differences between Iterative and Classical waterfall model? 4
- (c) Distinguish between Programs and Software Products. 2
3. (a) What are the desirable characteristics of a good Software Requirement Specification (SRS) document? 3
- (b) Describe the functional and non-functional requirements of a good SRS document. 5
4. (a) What are the characteristics of Spiral model? 4
- (b) Why it is called 'Meta Model'? 2
- (c) Differentiate between a Structure Chart and a Flow chart. 2

5. (a) How are Cohesion and Coupling useful in arriving at a good design of a system? 4
(b) Describe briefly different types of Coupling that might exist between two modules. 4
6. (a) What is black-box testing? 2
(b) Describe equivalence class partitioning and boundary value analysis in this context. 6
7. (a) Discuss the importance of Analysis and Design in Software Life Cycle. 2
(b) Differentiate between Stub and Driver. 6
8. (a) What are the characteristics of software architecture? Discuss its limitations. 4+2
(b) What is structure chart? 2

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.*

—x—