



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

**CMSGDSE03T-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

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| 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.*

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