

3369

B.C.A. IVth Semester (Even)
Examination, 2023

SOFTWARE ENGINEERING

Paper : BCA-405

Time : 3 Hours]

[M.M. : 70

Note :- Answer any *five* questions. All questions carry equal marks.

1. (i) What do you mean by SDLC ? Describe the different phases of SDLC.

(ii) Define software engineering. Differentiate it with conventional engineering.

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2. Differentiate prescriptive and evolutionary models with examples. Also discuss the advantages and disadvantages of models. 14
3. What is Software requirement specification ? Why is it required ? Explain IEEE template for SRS. 14
4. Why is UML required ? What are the architectures of UML ?
5. What is Coupling and Cohesion ? Explain different forms of it.
6. What is testing ? Compare black box and white box testing. Dis
7. Define software project estimation. List and explain the steps involved in project estimation. E
8. Define change management. Explain the process of change management.



9. XYZ University has a separate division to procure computers, printers, scanners, software and other computer accessories for its schools, division, regional centres, units, cells etc. The division has a Director, Deputy Directors, Assistant Directors and other staff working for this procurement of hardware and software. The requests come from the schools, division, regional centres etc. The procurement can be done only through GeM portal. Apart from procurement they handle the Annual Maintenance Contracts (AMC), Complaints, and Renewals etc. To accomplish the above mentioned tasks, perform the following :

- (i) Develop SRS for this system.
- (ii) Identify all the modules and list their functionalities.
- (iii) Design an Entity Relationship (E-R) diagram.

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10. Explain software project management, its principles and life cycle of project management. 14