

T.Y. Diploma : Sem. V
[CO/CM/IF]
Software Engineering
Prelim Question Paper



Time: 3 Hrs.]

[Marks : 100

- Instructions :** (1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

1. (a) Attempt any **THREE** of the following : [12]
(i) What is software? What are its characteristics?
(ii) Define software testing. State principles of software testing.
(iii) With an example, explain how CPM & PERT are useful in software project management.
(iv) Explain STD with suitable example.
- (b) Attempt any **ONE** of the following : [6]
(i) Explain the steps involved in requirement engineering.
(ii) Draw a data flow diagram level 0 and level 1 for a Book Publishing House.
2. Attempt any **FOUR** of the following : [16]
(a) Explain the principles of elements of analysis modeling.
(b) What are the generic characteristics of good software testing?
(c) Explain six sigma strategy.
(d) Explain the RAD with in advantages and disadvantages.
(e) What are communication principles? Explain their meaning.
(f) Explain unit testing.
3. Attempt any **FOUR** of the following : [16]
(a) Explain McCall's quality factors.
(b) Describe the principles of deployment.
(c) What do you mean by software risk? What are reactive and proactive risk strategies?
(d) What are the principles used for project scheduling and explain their meaning.
(e) Explain project management spectrum 4P's.
4. (a) Attempt any **THREE** of the following : [12]
(i) What are different debugging strategies? Explain any one in brief.
(ii) Explain different approaches of integration testing.
(iii) With reference to software design give the meanings of
(1) Modularity (2) Functional independence
(3) Refactoring (4) Information hiding
(iv) Compare White-Box and Black-Box testing.
- (b) Attempt any **ONE** of the following : [6]
(i) Describe process of CMMI techniques.
(ii) Explain waterfall model with diagram.
5. Attempt any **TWO** of the following : [16]
(a) Explain core principles of software engineering.
(b) Explain RMMM strategy in detail.
(c) Explain spiral model with its advantages and disadvantages.

6. Attempt any **FOUR** of the following :

[16]

- (a) Explain system testing methods.
- (b) What are PSP and TSP framework activities? Explain their meaning.
- (c) Explain SCM process repository.
- (d) Write in brief on ISO 9000 quality standard.
- (e) What is SRS? Explain importance of SRS.

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Paper Discussion Schedule for T.Y. Diploma (Sem. V) – All Subjects

Date	Day	Timing	Centres
14 Nov. 2016	Monday	9 a.m. to 11 a.m.	Borivali ,Thane
14 Nov. 2016	Monday	12 p.m.to 2 p.m.	Dadar