

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS),VELLORE-1.

SOFTWARE ENGINEERING

QUESTION BANK

UNIT-I Introduction to software engineering:

Introduction –some definitions-some size factors-quality and productivity factors-planning a software project:defining the problem-planning the development process-planning the organizational structure.

SECTION-A 2 Marks

1. Define software engineering.
2. Which skills needs in software engineering.
3. What are size factors.
4. Define product complexity.
5. What is mean by team communications.

SECTION-B 5 Marks

1. Define the Goals and Requirements in planning a software project.
2. Write any five factors that influence Quality and productivity
3. What are the different types of project size categories.
4. Define successive version.
5. Explain programming team structure.

SECTION-C 10 Marks

1. Explain in detail about Quality and productivity factors.
2. Explain defining the problem.
3. Explain planning and development process.

UNIT -II

Software cost estimation:software cost factors-software cost estimation techniques.software requirement definition.formal specification techniques.

SECTION-A 2 Marks

1. Define product size.
2. What is mean by available time
3. Define bottom-up and top-down approach
4. Define WBS
5. Define abstraction.

SECTION-B 5 Marks

1. Explain programming team Structure.
2. Define product complexity
3. Explain structure flowchart.
4. Explain algorithm cost model
5. Define SRS Definition

SECTION-C 10 Marks

1. Explain software cost model.
2. Explain software cost estimation techniques.
3. Explain in detail about software requirement definition.

Unit -III

Software Design:fundamental design concepts-modules and modularization criteria-design notations-design techniques.

SECTION-A 2 Marks

1. Define modularity
2. Define concurrency
3. What is mean by verification
4. Define aesthetics
5. Draw a diagram in data flow diagram.

SECTION-B **5 Marks**

1. Explain structure in design concepts.
2. Explain coupling and cohesion.
3. Explain Procedure templates.
4. Explain stepwise refinement.
5. Explain integrated top-down development.

SECTION-C **10 Marks**

1. Explain in detail about Software design.
2. Explain in detail about design notation
3. Explain in detail about design techniques.

Unit -IV

Implementation issues: structured coding techniques,coding style.modern programming language features:type checking.

SECTION-A **2 Marks**

1. Define pseudocode.
2. Define structured English.
3. Define typeless languages.
4. What is pseudo-strong type checking.
5. Define functional testing.

SECTION-B **5 Marks**

1. Explain Jackson structured programming.
2. Explain single entry,single exit constructs.
3. Explain efficiency considerations
4. Explain go-to statement
5. Explain recursion.

SECTION-C **10 Marks**

1. Explain in detail about structured coding techniques.
2. Explain in detail about coding style.

3. Explain in detail about Type-checking.

Unit -V

Verification and validation techniques: quality assurance- walkthroughs and inspections-unit testing and debugging-system testing.software maintenance:managerial aspects of software maintenance-configuration management-other maintenance tools and techniques.

SECTION-A 2 Marks

1. Define stress test.
2. Define structure test.
3. Define system testing.
4. What is mean by change control board.
5. Define linkage editors.

SECTION-B 5 Marks

1. Explain walkthrough and inspections.
2. Explain integration testing.
3. Explain managerial aspects of software aspects of software maintenance.
4. Explain configuration management.
5. Explain automated tools for software maintenance.

SECTION-C 10 Marks

1. Explain coding style.
2. Explain type checking.
3. Explain quality assurance.
4. Explain unit testing and debugging.