

Printed Pages – 4

Roll No.....

**322848(22)**

**B. E. (Eighth Semester) Examination, 2020**

APR-MAY

(New Scheme)

(CSE, IT Branch)

**SOFTWARE TESTING**

*Time Allowed : Three hours*

*Maximum Marks : 80*

*Minimum Pass Marks : 28*

*Note : Attempt all questions. Part (a) of each question is compulsory. Attempt any two parts from (b), (c) & (d).*

**Unit-I**

1. (a) What is software quality? 2

322848(22)

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[ 2 ]

- (b) State the role of testing in software engineering process. Also describe the objectives of testing. 7
- (c) Describe the Test Planning and Design process in detail. 7
- (d) How the Test Execution can be monitored and measured? Write in brief about various Test Tools. 7

**Unit-II**

- 2. (a) What is Static Unit Testing? 2
- (b) Explain the theory of Goodenough and Gerhart. 7
- (c) Write short note upon Adequacy of Testing and Limitations of Testing. 7
- (d) How defects can be prevented? Explain the process of debugging. 7

**Unit-III**

- 3. (a) What is Control Flow testing? 2
- (b) Explain the Data Flow Testing criteria. 7

[ 3 ]

- (c) Write notes upon Control Flow Graph. 7
- (d) Define Domain errors. How testing of domain errors is done, explain? 7

**Unit-IV**

4. (a) Define Acceptance Testing. 2
- (b) What are test design factors? How they affect the test design? 7
- (c) Describe the structure of a System Test Plan 7
- (d) Write short notes on : 7
- (i) System Testing
- (ii) Types of Acceptance Testing

**Unit-V**

5. (a) What is SQA? 2
- (b) Compare Quality Control process with the Quality Assurance process. 7
- (c) Describe McCall's Quality Factors. 7

[ 4 ]

(d) Write short notes on the following : 7

(i) CMM Model

(ii) SQA Plan