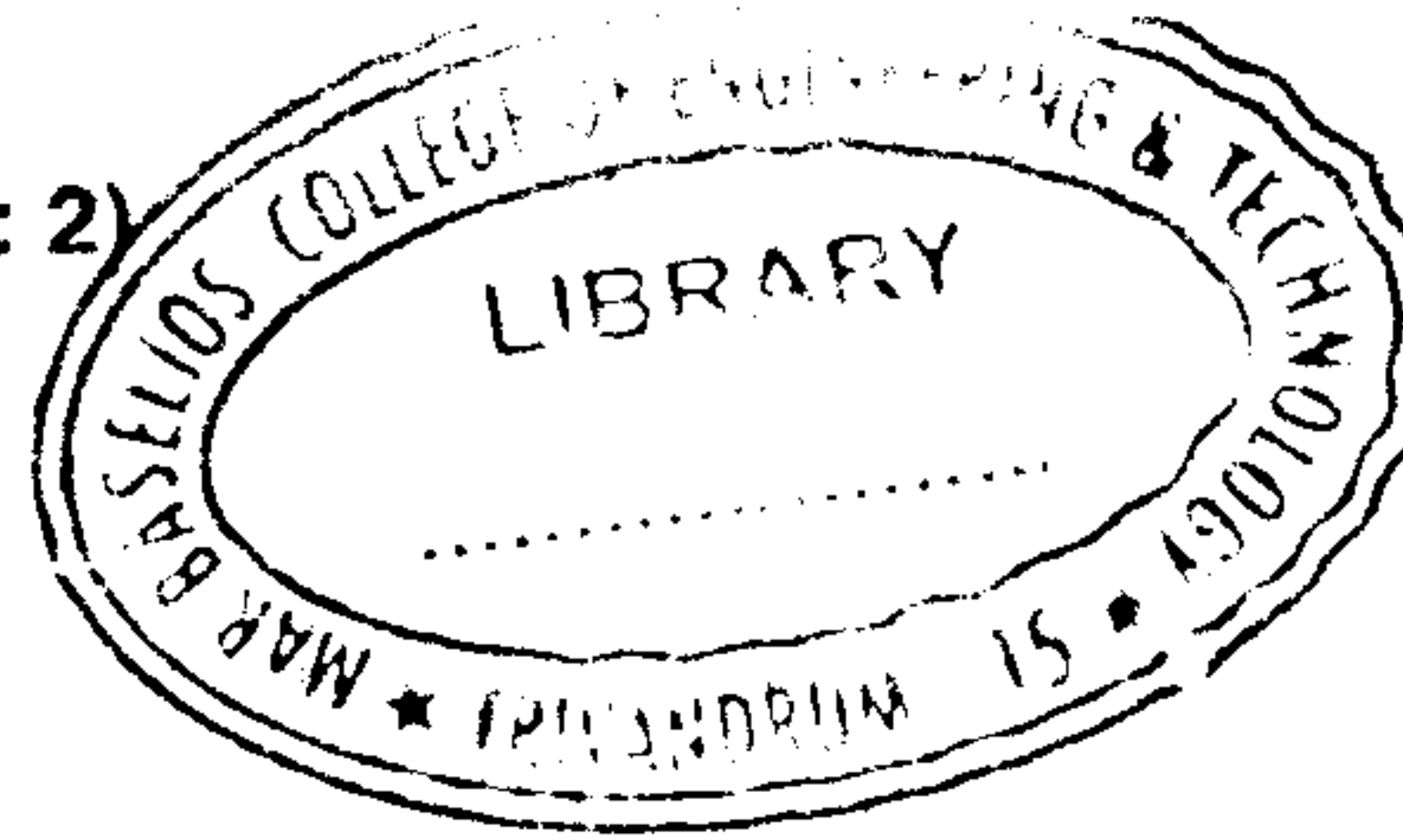




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E – 5596

Reg. No. :

Name :

**Eighth Semester B.Tech. Degree Examination, October 2018
(2008 Scheme)
08.804 : SOFTWARE TESTING (F)**

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

1. Show and describe the relationship between software development and testing activities through V-process model.
2. Why is integration testing harder than unit testing ? Explain with an example.
3. What are the roles and responsibilities of a software quality assurance group ?
4. State the advantages of alpha test and beta test. State their importance.
5. List two advantages of writing test cases early in the software life cycle. What could be one potential disadvantage of writing tests early ? Write the test plan components.
6. How effective is restart and recovery plan in application systems processing ?
7. State the principles of software defect prevention.
8. Draw the workbench for organizing testing.
9. Define the quality of measure in terms of reliability and its use. How does this help in testing ?
10. How are LOC and FP used during software project estimation ?

PART – B

Answer **one full** question from **each** Module. **Each** question carries **20** marks.

Module – I

11. a) An ABC company supplies cool drinks product and requires a new computerized billing system. The existing system does not cover most aspects of area, agents details. What software process model will be best suitable in the development of the new billing system ? The proposed strategy should explain the complete model with their merits and demerits. What alternate model can be chosen ? Justify. 14
- b) Whether a particular application is specific to a model, that is, if it could be developed using one model, but cannot be developed using other models ? Justify with reasons. 6

OR

P.T.O.



12. Explain the testing strategies and testing methods adapted for delivering a quality software. Give an example for each techniques. 20

Module – II

13. A software project manager has been asked to deliver a product in 9 months. After careful planning and risk analysis, the manager comes to the conclusion that the product will require 14 months with available resources. How should the manager proceed in executing the project plan ? Explain all test planning associated to deliver the right product. What are the tools required to build the test data ? Discuss. 20

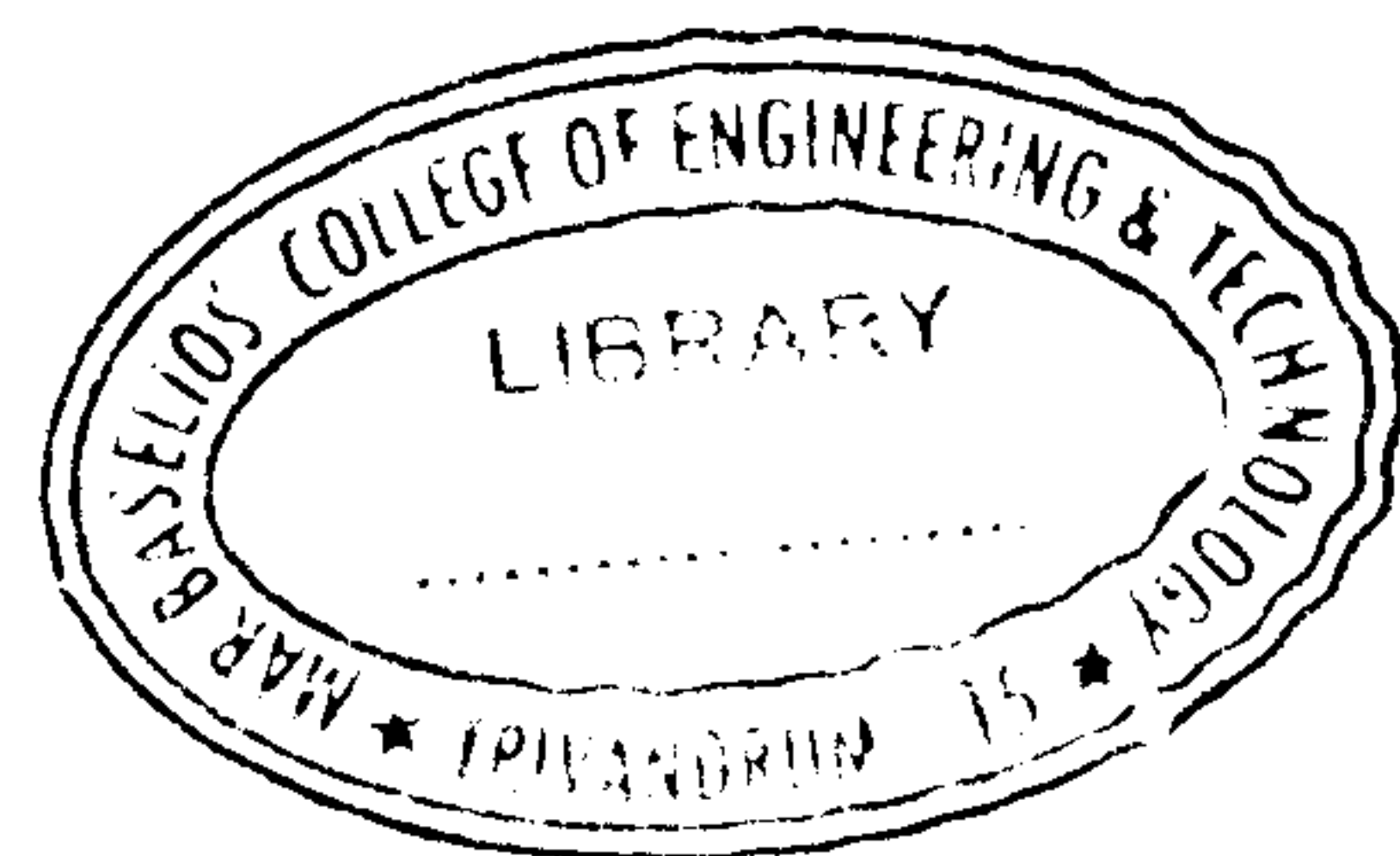
OR

14. a) Describe the test standards and explain the factors in building the test data and test case. Illustrate with your own application. 15
 b) What are test scripts ? State the need and significance of the same. 5

Module – III

15. a) Explain cyclomatic complexity metric and its use. Calculate the McCabe cyclomatic complexity for the following code :

```
public void howComplex()
{
    int i = 20;
    while (i<10) {
        System.out.printf("i is %d", i);
        if (i%2 == 0) {
            System.out.println("even");
        } else {
            System.out.println("odd");
        } } }
```



Why is this cyclomatic value useful to the tester ? What are the drawbacks of statement coverage metrics ? 12

- b) A program accesses 100 data objects, a total of 1200 times and uses 150 operators, a total of 1000 times. Calculate the Halstead's length and predict the rate of expected bugs. List the pros and cons of using LOC as metric. 8

OR

16. a) Explain the organization structures for testing team. 10
 b) State and explain the essential features in reporting the test results. 10