Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 50754

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

Sixth/Seventh Semester

Computer Science and Engineering

IT6004 – SOFTWARE TESTING

(Common to – Information Technology)

(Regulations 2013)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. What are the objectives of software testing ?

2. Define Test Bed.

3. Compare black box and white box testing.

4. What are the basic primes that are used in a structured program ?

5. Define Unit Test. Give an example.

6. Why is it important to design test harness for testing ?

7. List the various skills needed by a test specialist.

8. What is the role of Test Summary Report.

9. What are the challenges in test automation ?

10. What are the uses of walkthrough ?

PART – B   (5×16=80 Marks)

11. a) i) Explain various design defects with suitable examples.   (8)

        ii) Analyse tester's role in software development organization.   (8)

                  (OR)

   b) Illustrate with example the principles of software testing.   (16)

12. a) Illustrate equivalence class partitioning and boundary value analysis using suitable examples. **(16)**

(OR)

b) Explain the significance of control flow graph and cyclomatic complexity in white box testing with a pseudo code for sum of '*n*' numbers. **(16)**

13. a) Differentiate alpha testing from beta testing and discuss in detail about the phases in which alpha and beta testing is done. **(16)**

(OR)

b) Explain the different integration testing strategies for procedures and functions with suitable diagrams. **(16)**

14. a) Describe the components of test plan. Give examples. **(16)**

(OR)

b) i) Discuss in detail about various skills needed for a test specialist. **(8)**

ii) Explain the steps involved in forming a testing group. **(8)**

15. a) With a neat sketch discuss the design and architecture for test automation. **(16)**

(OR)

b) Discuss various metrics and measurements in software testing. Explain various types of progress metrics. **(16)**