This question paper contains **3** printed pages]

ND—23—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc CS (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

(Software Testing)

(Wednesday, 6-12-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if required.

(*iv*) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (**3** marks each) : 15

(*a*) Explain McCall's five quality factors.

(*b*) Explain software quality assurance.

(*c*) What is system testing ?

P.T.O.

(*d*) Explain internal views of software testing.

(*e*) Explain in short security testing.

(*f*) Explain framework for product metrics.

(*g*) Explain bottom up approach.

2. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain art of debugging.

(*b*) Explain top down approach in testing.

(*c*) Explain quality and security testing.

(*d*) Explain SQA plan.

(*e*) Explain validation testing in short.

3. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain control structure testing.

(*b*) Explain user interface testing.

(*c*) Explain metrics for source code.

(*d*) Explain quality control in short.

(*e*) Explain software reliability.

4. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain unit testing.

(*b*) Explain black box testing.

(*c*) Explain overview of testing process.

(*d*) Explain metrics for design model.

(*e*) Explain ISO9126 quality factor.

5. Write short notes on any *three* of the following (**5** marks each) : 15

(*a*) Formal technical review

(*b*) Strategic approach to software testing

(*c*) Software testing fundamentals

(*d*) White box testing

(*e*) Content testing.