

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

**BCA (Sem-4)**  
**SOFTWARE ENGINEERING**  
Subject Code : UGCA1921  
M.Code : 79725  
Date of Examination : 15-06-2023

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

**SECTION-A**

**1. Write briefly :**

- a) What is software? Explain with an example.
- b) What is SRS and why it is used?
- c) What is testing and when it is used?
- d) What are the metrics used for software testing?
- e) How decision tree is used in software engineering?
- f) What are characteristics of a good software design?
- g) How software cost estimation is done?
- h) What is software maintenance?
- i) Which metric is used for design model?
- j) Define Software Engineering.

## SECTION-B

2. In 2017, a well-known organization 'A' is planning to develop a large product 'B'. Product 'B' would be comparable to a well-known Product 'C' but would be targeted to Operating system 'D'. At this time, no other vendor is planning to develop such product for operating system 'D'. What life cycle model "would you use? Briefly justify your answer and also explain the model.
3. Discuss various metrics that are used for maintenance, give example.
4. Consider two components A and B. Two software engineers, Laurel and Hardy, measure the dependences between A and B. Laurel uses these dependences when computing cohesion, and Hardy uses these dependences when computing coupling. Laurel is considering a larger module C that contains both A and B as implementation details. Hardy is considering the implementation of C, and thinking of A and B as modules. Out of Laurel and Hardy who is performing a sensible and useful computation and why?
5. What is software testing? Discuss the role of software testing during software life cycle and why is it so difficult?
6. What is the difference between White and Black Box testing? Discuss with an example.
7.
  - a) What is software cost estimation and how it is measured. Give example to support your answer.
  - b) What are properties of a good SRS. Give example to support your answer.

**NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.**