

TB174175C

Reg.No.....

Name.....

**B. Sc. DEGREE (C.B.C.S.S) EXAMINATION, MARCH 2019**  
**(2017 Admissions Regular, 2016 Admissions Improvement/Supplementary & 2015**  
**Admissions Supplementary)**  
**SEMESTER IV – CORE COURSE (COMPUTER APPLICATIONS)**  
**CAC4B08TB – SOFTWARE ENGINEERING**

**Time: Three Hours**

**Maximum Marks: 80**

**PART A**

**I Answer all questions. Each question carries 1 mark**

1. Define closed system
2. State different stages in SDLC
3. Differentiate between product and process
4. Define Software Engineering
5. Expand COCOMO
6. Name the most desirable form of Coupling

**(6x1=6)**

**PART B**

**II Answer any seven questions. Each question carries 2 marks**

7. Name two user acceptance testing methods
8. Explain the constraints of a System
9. What is software prototyping?
10. Define Requirements Engineering
11. Draw the software reliability curve.( failure rate versus time)
12. Explain hybrid design
13. Draw the bath tub curve of hardware reliability
14. Differentiate between Verification and Validation
15. Explain FAST approach
16. Name the types of feasibility studies

**(7x2=14)**

**PART C**

**III Answer any five questions. Each question carries 6 marks**

17. Explain in detail the elements of a system
18. Explain with help of a neat diagram spiral model of software life cycle
19. List out evolutionary process models
20. Explain briefly requirement elicitation techniques

21. Compute the functional point value for a project with the following information domain characteristics :
- No of user inputs = 50
  - No of user outputs = 40
  - No of user enquiries = 35
  - No of user files = 06
  - No of external interfaces = 04
- Assume all complexity adjustment factors and weighting factors are average.  
[ Weighting Factors for EI - 4, EO – 5, EQ – 4, ILF – 10, EIF – 7, Fi = 3]
22. Find the Cyclomatic Complexity of the given code fragment using the three methods.
- ```
A = 10
IF B >C THEN
A=B
ELSE
A=C
ENDIF
PRINT A, B,C
```
23. Define Cohesion. Explain different types of cohesion.
24. Differentiate faults and failures.

**(5x6=30)**

#### **PART D**

#### **IV Answer any two questions. Each question carries 15 marks**

25. Explain in detail module coupling and cohesion in software design.
26. Compare and contrast alpha and beta testing methods.
27. Explain DFD, Draw a DFD for borrowing a book in a library which is explained below, “A borrower can borrow a book if it is available else she can reserve for the book if she so wishes. She can borrow a maximum of three books”.
28. Compare the waterfall model and the spiral model of software development.

**(2x15=30)**