

Total number of printed pages-4

44 (3) BCA-HC-3016

2022

( Held in 2023 )

**SOFTWARE ENGINEERING**

Paper : BCA-HC-3016

Full Marks : 60

Time : Three hours

**The figures in the margin indicate full marks for the questions.**

1. Fill in the blanks :  $1 \times 6 = 6$

(a) DFD stands for \_\_\_\_\_.

(b) COCOMO stands for \_\_\_\_\_.

(c) A design solution is understandable, if it is \_\_\_\_\_ and the molecules are arranged in layers.

(d) Cohesion is measure of \_\_\_\_\_ of a module.

(e) A \_\_\_\_\_ is a mistake committed by the development team.

Contd.

(f) Build and fix is also called as \_\_\_\_\_.

2. Answer **any three** : 3×3=9

(a) Distinguish between program and software product.

(b) What are the main differences between flowchart and dataflow diagram ?

(c) What are the major job responsibilities of a software project manager ?

(d) What is software crisis ? What are the main reasons for software crisis ?

3. Answer **any four** : 5×4=20

(a) Which are the major phases in the waterfall model of software development ? Why is it considered as idealistic model ?

(b) Define coupling. What are the different types of coupling that exist between two models ?

(c) What is the difference between black box and white box testing ?

(d) Define unit testing. What are stubs and drivers ? Explain.

(e) What are the different types of software development projects according to the COCOMO estimation model?

4. Define the following terms : 1×5=5

(a) Failure

(b) Verification and validation

(c) Cohesion

(d) Perfective maintenance

(e) Integration testing

5. (a) Define debugging. What are the different approaches for debugging? Explain them briefly. 7

(b) Define statement and branch coverage. Explain. 3

6. (a) What problems are likely to arise if two modules have high coupling? 3

(b) What do you mean by Delphi cost estimation techniques? 2



(c) Define Context Diagram. Explain with one diagram. 3

(d) What are LOC and FP in context with project size estimation technique? 2

