6/H-73 (vii) (Syllabus-2015)

2021

(July)

COMPUTER SCIENCE

(Honours)

(Software Engineering)

(CS-601 T)

Marks : 37

Time: 2 hours

The figures in the margin indicate full marks for the questions

Answer one question from each Unit

UNIT-I

- **1.** (a) What is a system? Write a note on the types of systems. 1+3=4
 - (b) Elaborate on the interpersonal and technical skills of a system analyst. 3½
- **2.** (a) Elaborate on the analyst/user interface-behavioral issues. Explain MIS organization. 3+2=5
 - (b) Briefly explain the advantage and disadvantage of data and fact gathering through interviews. 2½

(2)

Unit—II

3. Compare and contrast the evolutionary model of software development with the spiral model of software development.

 $3+3\frac{1}{2}=6\frac{1}{2}$

4. With the help of a diagram, explain the waterfall model of software development. What are its merits and demerits? $4+2\frac{1}{2}=6\frac{1}{2}$

UNIT—III

- **5.** (a) What are the project planning activities involved during software development? Why is it important? 3+2=5
 - (b) Explain modularity. What is a functionally independent module and what is its importance? $2+1\frac{1}{2}=3\frac{1}{2}$
- **6.** (a) What is a functional organization structure? What are its advantages? 1+2=3
 - (b) Briefly explain the three main approaches to software cost estimation. 3
 - (c) Write a note on COCOMO product classes. $2\frac{1}{2}$

20D**/1329** (Turn Over)

20D**/1329**

(Continued)

UNIT—IV

7.	(a)	What is meant by 'balancing a DFD'? Briefly elaborate on some commonly made errors while constructing a DFD
		model. 1+3=4
	(b)	What are the characteristics of a good

user interface?

- **8.** (a) What is the aim of structured design? Explain a structure chart with the help of an example. 1+3=4
 - (b) What is an activity diagram? How is it different from a class diagram? $2+1\frac{1}{2}=3\frac{1}{2}$

Unit—V

- **9.** (a) Explain how code inspection and code walk-throughs are performed.
 - (b) How is verification different from validation?
- **10.** (a) Differentiate between black-box testing and white-box testing. 4
 - (b) What factors determine the quality of software?

* * *

 $3\frac{1}{2}$

3