WEST BENGAL STATE UNIVERSITY

B.A./B.Sc. Honours 4th Semester Examination, 2022

CMAACOR10T-COMPUTER APPLICATION (CC10)

SOFTWARE ENGINEERING

Time Allotted: 2 Hours   Full Marks: 50

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

Question No. 1 is compulsory. In addition answer any *five* from the rest

GROUP-A

1. Answer any *five* from the following: 2×5 = 10

    (a) What is risk management concept of software?

    (b) Differentiate between product and process.

    (c) What is feasibility analysis?

    (d) What do you mean by System testing?

    (e) What are the characteristics of software?

    (f) What do you mean by software project management?

    (g) What are cohesion and coupling?

    (h) Distinguish between verification and validation.

GROUP-B

Answer any *five* questions from the following   8×5 = 40

2. (a) What is meant by the term "design"? Define design methodology.   4+4

    (b) Explain how "functional modeling" is carried out during the requirement analysis phase.

3. (a) Briefly explain the types of S/W maintenance.   4+4

    (b) Differentiate spiral and iterative waterfall model.

4. (a) Why software testing required? What is the basic difference between White Box testing and Black Box testing?   (2+4)+2

    (b) What is stress testing?

5. (a) Explain the concept of COCOMO Model. 3+5

   (b) An organization is developing a system that is expected to have about 100,000 lines of code. Compute the effort and the development time for each of the three development models i.e. organic, semi-detached and embedded.

6. (a) What is CMMI? 2+6

   (b) Discuss different types of COHESION.

7. (a) What do you mean by data dictionary? Explain with an example. Why it is used? 3+5

   (b) What are the challenges of S/W Engineering?

8. (a) Explain Software Quality and Productivity factors. 5+3

   (b) What are the main difference between Quality Assurance and Quality Control?

9.   Write short notes on (any *two*): 4×2 = 8

   (a) Mutation Testing

   (b) Function Point Metric

   (c) White Box Testing

   (d) Verification.

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within* 1 *hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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