

BACHELOR OF SCIENCE (COMPUTER SCIENCE) (CBCS - 2016 COURSE)
T.Y.B.Sc.(Computer Science) Sem-VI :SUMMER- 2022
SUBJECT : UNIFIED MODELING LANGUAGE

Day : Tuesday
Date : 12/7/2022

S-14920-2022

Time : 11:00 AM-02:00 PM
Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagram **WHEREVER** necessary.

Q.1 Attempt any **TWO** of the following: **(12)**

- a) Draw and explain UML architecture.
- b) What is component diagram? Explain with suitable example.
- c) Explain how modeling plays important role in a system development.

Q.2 Attempt any **TWO** of the following: **(12)**

- a) Explain the links and association with suitable example.
- b) Explain deployment diagram with suitable example.
- c) Draw class diagram for giving attributes and operations for stack and queue implementation using linked list.

Q.3 Attempt any **TWO** of the following: **(12)**

- a) Explain the different elements of use case diagram.
- b) Draw and explain sequence diagram for search engine for searching a specific text, site and document over the internet.
- c) Draw and explain object diagram for Online Shopping System.

Q.4 Attempt any **THREE** of the following: **(12)**

- a) Draw state diagram for chess game.
- b) State different advantages of UML.
- c) What are the UML process workflows?
- d) Write a note on UML role names.

Q.5 Attempt any **FOUR** of the following: **(12)**

- a) What do you mean by Polymorphism?
- b) What is inheritance? What are the types of inheritance?
- c) Write a short note on ordering in UML.
- d) Write a short note on abstract classes.
- e) Define SDLC in UML.
- f) Differentiate between activity and sequence diagram.

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