# TILAK MAHARASHTRA VIDYAPEETH, PUNE BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)

# **EXAMINATION: JUNE - 2022**

### SEMESTER – V/VI

Sub: Unified Modeling Language (UML) (BCA-546-18/631/641)

Date: 29/06/2022 Total Marks: 60 Time: 10.00 am to 12.30 pm

#### Instructions:

- 1. All questions are compulsory unless and otherwise stated.
- 2. Bold figures to the right of every question are the maximum marks for that question.
- 3. Candidates are advised to attempt questions in order.
- 4. Answers written illegibly are likely to be marked zero.
- 5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
- 6. Draw neat and labelled diagrams wherever necessary.

Q.1. Case Study (20)

A system is designed for processing results of students. Students fills the examination form by giving details about subject, centre etc. which is an input to the system. Student pays examination fees. Fee receipt and admit card of examination should get generated. Examination is conducted at various centres. Centres provide absentee report. The evaluation department provides marks of students in each subject. Mark sheet and merit list are the output of the system.

State the above statement and draw the following diagram

- a. Class Diagram
- b. Use case Diagram
- c. Activity Diagram

## Q.2. Solve (Any two)

(30)

- 1. Draw the following diagram for booking online ticket for flight. State suitable assumptions.
  - a. Sequence Diagram
  - b. Class Diagram
  - c. Use case Diagram
- 2. Draw Sequence diagram, Use case diagram and Class diagram for ordering food online from any app.
- 3. Explain principles of modeling.

## Q.3. Answer the following in 2-3 lines (Solve any 5)

(10)

- 1. What is purpose of swim lanes in UML
- 2. What is responsibility of an object?
- 3. What is the difference between a flow chart and an activity diagram?
- 4. Give difference between generalization and extend relationship.
- 5. Draw sequence diagram for sending an Email.
- 6. What is the purpose of use case diagram?
- 7. What are the elements of sequence diagram?

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