Total No. of Questions : 5]

SEAT No. :

PB-1472

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# T.Y. B.B.A. (C.A.)

# CA-502 : OBJECT ORIENTED SOFTWARE ENGINEERING

## (2019 Pattern) (CBCS) (Semester - V)

*Time : 2½ Hours]* *[Max. Marks : 70*

***Instructions to the candidates:***

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***
3) ***Neat diagram must be drawn wherever necessary.***

***Q1)*** Attempt any five of the following: **[5 × 2 = 10]**

a) List the types of inheritance.

b) What is active class?

c) Define term object orientation.

d) Explain polymorphism.

e) List any four characteristics of a system.

f) Define Role Names.

g) What is Action?

***Q2)*** Attempt any four of the following: **[4 × 4 = 16]**

a) Explain what is requirement elicitation.

b) Explain UML architecture.

c) Explain activity diagram with Notations.

d) Draw the collaboration diagram for hospital management system.

e) Describe UP phases with the help of diagram.

***P.T.O.***

***Q3)*** Attempt any four of the following: **[4 × 4 = 16]**

a) Explain deployment diagram. State any four notation of deployment diagram.

b) What is classifier? Explain different classifiers.

c) Explain which diagrams are called as interaction diagram and explain these diagrams are used to model which aspect of system.

d) Explain prototyping model with diagram.

e) Explain object oriented design process.

***Q4)*** Attempt any four of the following: **[4 × 4 = 16]**

a) What is Package? Explain different kinds of packages.

b) Explain Jacobson method of object oriented design.

c) Define relationship. Explain different kinds of relationship.

d) Define the following terms :

i) Composition

ii) Note

iii) Forking

iv) Joining

e) What do you mean by task management component?

***Q5)*** Attempt the following : **[12]**

Hospital Management system help in registering information about patient and handles patient query. A unique ID is generated for each patient affer registration This help to maintain relationship and maintain medical history of patient. This system also monitor the doctor appointment when ID is generated the patient receive the appointment time and number from the receptionist and accordingly visit the doctor. The system also deal with patient Test detail.

The system also deals with bed allotment to various patients by checking their ID. The system identifies whether the person is a doctor or staff and handel various activities such as draw salary and give salary | add doctor | staff information into the database.

As per the doctor diagnoses the patient, gives treatment and give suggestion to patient and prescribe laboratory tests and medicines.

The patient can pay bill through credit card, cash or cheque whose information is maintained by the system.

Consider above situation draw the following UML diagram.

a) Use case diagram

b) Activity diagram

c) Class diagram