

TCS/TIT-406

420

Even Semester Examination - 2017

B.TECH. (IV SEMESTER)

SOFTWARE ENGINEERING

Time: 02:00 Hours

Max Marks : 50

Note: Attempt **all** questions, each question carry **equal** marks.

Q1. Attempt any Two parts of the following: (5X2=10)

- (a) Define Software Engineering. List the impact of Software engineering on developing software.
- (b) What is prototype? Under what conditions prototyping model is preferred over other models.
- (c) What do you mean by Project management? Why it is important.

Q2. Attempt any Two parts of the following: (5X2=10)

- (a) Why is software requirement specification important? List some non-functional requirement.

(b) What do you mean by Software Design? What are the characteristics of a good design?

(c) How will you improve the software design with High Coupling?

Q3. Attempt any three parts of the following: (5X3=15)

(a) Define Entity, Relationship, Attribute, Cardinality and Primary Key.

(b) What is data dictionary? Explain briefly the notation used for describing data dictionary.

(c) What is function decomposition diagram? Draw a function decomposition diagram to represent the functionality of a Library.

(d) What is the difference between a Stub and a Driver.

Q4. Attempt any three parts of the following: (5X3=15)

(a) Differentiate between Alpha and Beta Testing.

(b) Consider the following code-

```
For(i=1;i<10;i++)
```

```
For (j=1;j<10;j++)
```

```
{
```

```
Sum=i+j;
```

```
Prod=i*j;
```

```
}
```

Identify test cases to perform loop Testing.

- (C) Write a note on Capture Playback Tools and Test Case Generators.
- (d) Explain Constructive Cost Models (COCOMO).
