Roll No. .....

TBC–502/TBI–502

B. C. A./B. SC. (IT) (FIFTH SEMESTER)
END SEMESTER EXAMINATION, 2019

SOFTWARE ENGINEERING

Time : Three Hours

Maximum Marks : 100

Note : (i) This question paper contains five questions.

(ii) All questions are compulsory.

(iii) Instructions on how to attempt a question are mentioned against it.

(iv) Total marks assigned each to question are **twenty**.

1. Attempt any *two* parts of choice from (a), (b) and (c). (10×2=20 Marks)

   (a) Briefly discuss the characteristics of software processes and Software Engineering.

   (b) Explain the Agile model used in software development in detail.

   (c) Describe the RAD model for software development with suitable diagram.

2. Attempt any *two* parts of choice from (a), (b) and (c). (10×2=20 Marks)

   (a) What is requirements elicitation process ? Draw DFD level 2 for e-Commerce website like flipkart.com.

   (b) What is IEEE standard for SRS ? What are its major components ? List *five* desirable characteristics of a good SRS document.

   (c) Write short notes on any *two* of the following :

   (i) Great design concept

   (ii) Problem portioning

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3. Attempt any *two* parts of choice from (a), (b) and (c). (10×2=20 Marks)

(a) What is abstraction ? Why is it necessary to maintain a good quality of software ?

(b) What is Object Oriented Design ? How it is different from Function Oriented Design ?

(c) Write short notes on any *two* of the following :

(i) Functional testing

(ii) Top down *vs*. Bottom up programming

(iii) Information hiding

4. Attempt any *two* parts of choice from (a), (b) and (c). (10×2=20 Marks)

(a) Differentiate cohesion and coupling with suitable diagram.

(b) Explain scope related to cost of software maintenance with suitable example.

(c) Explain importance of software reengineering and software reverse engineering.

5. Attempt any *two* parts of choice from (a), (b) and (c). (10×2=20 Marks)

(a) Explain various labels of Capability Maturity Model (CMM) with suitable diagram.

(b) What is software reliabillty ? Explain reliability with Quality Assurance.

(c) Explain scope related to CASE support in software life cycle with suitable example.