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# **CC587**

## M.Tech. EXAMINATION, May 2019

(Third Semester)

(B. Scheme) (Re-appear)

(CSE)

CSE661B

### SOFTWARE MEASUREMENT AND METRICS

Time: 3 Hours [Maximum Marks: 75]

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

**Note**: Attempt *Five* questions in all, selecting at least *one* question from each Unit. Answer to the point. Use of Scientific Calculator is allowed.

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P.T.O.

## Unit I

- 1. Explain the components of goal based framework for software measurement. 15
- **2.** Explain the classification of software measures.

15

### **Unit II**

- 3. Explain, how to analyze software measurement data.15
- **4.** Calculate the cyclomatic complexity of the given below program :

Procedure Validate\_Pin(Valid\_Pin, Return\_Code)

Valid Pin = FALSE

Return Code = GOOD

Pin Count = 0

do until Valid Pin - True or Pin Count > 2 or

Return\_Code = CANCEL

begin

 $get\ Pin\_Number\ (Pin\_Number,\ Return\_Code)$ 

2

if (Return\_Code = CANCEL)

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call Valide Pin\_Number(Pin\_Number. Valid\_Pin)
if (Valid\_Pin = FLASE) then
 begin

output Invalid PIN, please re-enter PIN"

 $Pin\_Count = Pin\_Count + 1$ 

end

begin

end

return (Valid\_Pin, Return\_Code).

15

## **Unit III**

- 5. Explain the Jelinski-Moranda SoftwareReliability Model.15
- **6.** Explain the basic program execution model.

15

### **Unit IV**

7. List and explain the runtime software metrics.

15

8. List and explain the various object-oriented metrics.

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