



## GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

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Name of Examination : **Winter 2020** - (Preview)

Course Code & Course Name : **CO404B - Elective I-Software Metrics and Quality Assurance**

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Maximum Marks : **60**

Duration : **3 Hrs**

[Edit](#) [Print](#) [View Answer Key](#) [Close](#) **Answer Key Submission Type:** Marking scheme with model answers and solutions of numerical

Instructions:

1. All questions are compulsory.
2. Illustrate your answer with suitable figures/sketches wherever necessary.
3. Assume suitable additional data; if required.
4. Use of logarithmic table, drawing instruments and non programmable calculators is allowed.
5. Figures to the right indicate full marks.

- 1) Solve all sub-questions
  - a) Explain the measurement scales and scale types. [6]
  - b) Define Entity, Attribute related to measurement. Give examples of Product entities, Process entities, Internal attributes, External Attributes each related with software measurement. [6]
- 2) Solve all sub-questions
  - a) Explain the Halstead Metrics for software size with example. [6]
  - b) Explain the various parameters which affects the function points, method of calculating the functions points and efforts for a software project. [6]
- 3) Solve any two sub-questions
  - a) For the following program, draw the flow graph and calculate the McCabe's cyclomatic complexity. [6]
 

```

IF A=10 THEN
  IF B > C THEN
    A = B
  ELSE
    A = C
ENDIF
Print A
Print B
Print C
          
```
  - b) Explain
    - i. Object points [3]
    - ii. Feature points [3]
  - c) Define quality, Software quality. Explain the McCall Software quality model [6]
- 4) Solve any two sub-questions
  - a) List types of software Documentation, explain any one type. [6]
  - b) Explain the software reliability problem. [6]
  - c) Explain the J-Meter testing tool. [6]
- 5) Solve any two sub-questions
  - a) Compare ISO 9000 model with SEI's CMM Model [6]
  - b) Explain Software Testing Life Cycle, the steps involved in it with the help of neat diagram. [6]
  - c) Explain SEI's CMM model CMM [6]

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