



# RAN-1214

## T.Y.B.Sc Computer Science) - Sem VI Examination

March / April - 2019

### Software Quality Assurance

Time: 2 Hours ]

[ Total Marks: 50

#### सूचना : / Instructions

नीचे दृष्टविले निशानीवाणी विगतो उत्तरवही पर अवश्य लभवी.  
Fill up strictly the details of signs on your answer book

Name of the Examination:

T.Y.B.Sc. Computer Science) - Sem VI

Name of the Subject :

Software Quality Assurance

Subject Code No.: 1 2 1 4

Seat No.:

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Student's Signature

#### Q-1 Answer in brief.

(14)

- 1) Can a program be correct and not reliable? Explain.
- 2) Differentiate between the quality criteria 'Accuracy' and 'Completeness'.
- 3) What is **Phase Index**?
- 4) What are **Requirement Reviews**? What are its objectives?
- 5) Justify: "Lack of conformance to requirement is lack of quality"
- 6) Define **Software Quality Assurance**. Define **SQA group**.
- 7) Define the term **Software Availability**. Explain how can it be measured.

#### Q-2 Answer in Details(any two).

(12)

- i. Explain **FURPS** model of quality factors in detail.
- ii. Define the term **Quality**. Differentiate between **Quality control and Quality assurance**. What is the cost of quality?
- iii. Explain following review guidelines:
  - a. Be prepared-evaluate the product before review.
  - b. Review the product, not the producer.
  - c. Raise issues, don't resolve them.

**Q-3 Answer in Details (any two). (12)**

- i. Explain in detail about how to measure/estimate the quality of **source code**.
- ii. Using the following system as example, explain **FP-based Metric** for evaluating the quality of Analysis model.

	Complexity wise distribution		
	Simple	Average	Complex
Number of user inputs	2	1	0
Number of user outputs	1	1	1
Number of user inquiries	1	1	1
Number of files	1	0	0
Number of external interfaces	2	1	1

- iii. Explain the process of computing **Coupling** metrics. Also give its significance.

**Q-4 Answer in Details(any two). (12)**

- 1) Compare **McCall's** Quality factors with that of **FURPS's**.
- 2) Explain **ISO 9001:2000** and **9001:2008** standards for quality assurance standard in brief.
- 3) Explain **CMM Level 3** in brief. Also explain various **KPAs** at **CMM level 3**.

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