**Birla Institute of Technology & Science, Pilani**

**Work-Integrated Learning Programmes Division**

**First Semester 2015-2016**

**Mid-Semester Test (EC-2 Regular)**

Course No. : SS ZG661

Course Title : SOFTWARE QUALITY MANAGEMENT

Nature of Exam : Closed Book

No. of Pages = 1

# No. of Questions = 5

Weightage : 35%

Duration : 2 Hours

Date of Exam : 19/09/2015 (FN)

Note:

1. Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
2. All parts of a question should be answered consecutively. Each answer should start from a fresh page.
3. Assumptions made if any, should be stated clearly at the beginning of your answer.
4. Do NOT use long paragraphs for your answers; use short paragraphs (not more than 2 – 3 sentences each) or simple bullet-points; use relevant diagrams/sketches for illustration. MCQ or T/F answers require justification; NO marks or partial marks for incorrect or missing justification
5. Answer the following questions (MCQ & T/F with Justification [5 x 2 = 10]
6. What is the normal order of testing activities for software?

(a) Unit, integration, system, validation (b) System, validation, integration, unit

(c) Unit, integration, validation, system (d) None of the mentioned

1. In a spiral model ‘risk analysis’ is performed:

(a) In first loop (b) In first and second loop

(c) In every loop (d) At the end of the last loop

1. Which is not a size metric?

(a) LOC (b) Function Points (c) Cyclomatic complexity (d) Object count

1. Quality & Productivity metrics help in Project Manager’s performance appraisal (T/F)
2. Performing code-coverage analysis than observing usage-patterns can help optimize testing effort in any project (T/F)
3. Consider you are about to start a User Acceptance Test (UAT) with a customer for a web based online transaction system:
4. What are the different conditions that you will agree with the client before the start of the UAT and explain the reason for it [3]
5. Which metrics you will propose to track the UAT [3]
6. Identify key challenges you are likely to face (from a service provider perspective) for completing UAT on schedule [4]
7. What is the motivation for wide-spread adoption of agile methods? How agile methodology is distinct from incremental/iterative methodologies? Describe how quality is ensured in agile development. [5]
8. When do we use Boundary Value Analysis (BVA)? What are its limitations? [5]
9. A program validates a numeric field as follows: values less than 10 are rejected; values between 10 and 21 are accepted; values greater than or equal to 22 are rejected. State the equivalence classes you have identified. What will be test cases for each of the class? [5]

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