Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14CS3041** | **Duration :** | **3hrs** |
| **Sub. Name :** | **Software Metrics and Quality Management** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | What are the different measurement scale types?Describe each of them with an illustrative example. | CO1 | 10 |
| b. | Suppose the development team has its goal “Improve effectiveness of testing”.How will youuse the GQM approach to determine if the team has met its goals? | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Explain the scope of software metrics and discuss few metrics for maintenance goals. | CO1 | 10 |
| b. | Discuss the empirical investigation schemes for data collection and analysis. | CO1 | 10 |
|  | | | | |
| 3. | a. | What are the different types of structural measures? Explain the flowgraph model of a structure with examples. | CO1 | 20 |
| (OR) | | | | |
| 4. | a. | Explain how teams,tools and methods contributes in enhancing the productivity. | CO1 | 10 |
|  | b. | Explain in detail the elements of the software quality system that supports the goals of Software Life Cycle. | CO1 | 10 |
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| 5. | a. | Explain the quality tools used for collecting measurements in defect analysis with necessary examples. | CO2 | 12 |
|  | b. | Explain the types of reviews in software quality management. | CO2 | 8 |
| (OR) | | | | |
| 6. | a. | Consider a University Attendance Maintenance System developed In-house. Explain the approaches followed by the organization for in-house standards development to assure that each standard reflects the organization's actual needs and environment. | CO1 | 10 |
|  | b. | If you are the tester for the above system, what are the testing approaches will you use for finding the defects in the modules? | CO1 | 10 |
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| 7. | a. | Explain in detail the various Configuration Management Components with neat diagrams. | CO2 | 20 |
| (OR) | | | | |
| 8. | a. | “The software quality practitioner of an organization is responsible for monitoring the educational activities that surround the development and use of software systems.” Justify this statement with examples. | CO2 | 10 |
|  | b. | Consider safety-critical software that requires the application of more extensive quality measures. As a software quality practitioner what aspects and issues of surrounding software safety you should be aware of and explain the scenarios in detail. | CO2 | 10 |
| Compulsory: | | | | |
| 9. | a. | How will you implement a successful software quality system with a change in the culture of the organization with respect to quality? Explain in detail. | CO2 | 20 |

ALL THE BEST