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



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **17CS3066** | 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. | Suggest suitable real time application in which Iterative Development Process Model is useful. | CO2 | 5 |
| b. | State the main significance of Waterfall model. | CO2 | 5 |
| c. | Elaborate on five point scale to measure Customer Satisfaction. | CO2 | 10 |
| (OR) | | | | |
| 2. | a. | A small and well reputed local bank wishes to change its business style from conventional accounting practices to modern system of core banking (Automation). Further, it wants to expand its business by opening many more branches and also start ATMs. But they have many apprehensions about the software development process. Suggest a suitable software lifecycle to develop the software for such a scenario and justify your choice. Illustrate the model. | CO3 | 10 |
| b. | Analyse different maturity levels of CMMI and what is the significance of each level? What are the process areas in each of the maturity levels? | CO2 | 10 |
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| 3. |  | Illustrate with an example of Object Oriented Development Process and also explain the different steps involved in the process. | CO1 | 20 |
| (OR) | | | | |
| 4. |  | “The MTTF metric is most often used in safety Critical System”. Justify the statement with valid reasons and state the significance of MTTF metric in Product Quality Metrics. | CO1 | 20 |
|  |  |  |  |  |
| 5. | a. | How “Lines of Code”(LoC) is stated as productivity metric? Give suitable justification with an example to prove the justification given. | CO2 | 10 |
|  | b. | Explain the formula for computing function points in detail with all its factors. | CO3 | 10 |
| (OR) | | | | |
| 6. | a. | Explain and elaborate on the significance about the Rapid throwaway Prototyping and Evolutionary Prototyping. | CO2 | 10 |
|  | b. | State the difference between a HLD and LLD in the waterfall process. | CO2 | 10 |
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| 7. | a. | Briefly explain about Pareto Analysis with suitable example. | CO3 | 10 |
|  | b. | Analyse and explain the similarities and differences between Cause-and-effect diagram and relationship diagrams. | CO1 | 10 |
| (OR) | | | | |
| 8. |  | In detail give the significance of Weibull probability density curves and which of them are applicable for software development and testing processes? | CO3 | 20 |
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|  | | **Compulsory**: |  |  |
| 9. |  | Explain Rayleigh Model in detail with suitable diagrams and highlight the interpretation of the model for software development and testing processes. | CO2 | 20 |