

School of Computing Science and Engineering

Master of Computer Applications Semester End Examination - Jun 2024

Duration : 180 Minutes Max Marks : 100

Sem II - E1PY208T - MCAN1240 - Software Engineering and Testing

<u>General Instructions</u> Answer to the specific question asked Draw neat, labelled diagrams wherever necessary Approved data hand books are allowed subject to verification by the Invigilator

- 1) What is a Software, and attributes of good software? K1(2)
- ²⁾ Explain the purpose of performance testing in software ^{K2(4)} development.
- ³⁾ Outline the different types of software maintenance activities? K2(6)
- 4) Apply the COCOMO model to estimate the effort required for a K3(9) project that is classified as 'organic' and consists of 32,000 lines of code (LOC). Use the basic COCOMO model formula. For an organic project, the typical values of A and B are 2.4 and 1.05
- 5) A software project is estimated to require 500 person-days of effort. K3(9) If the team consists of 5 developers, solve how many days will it take to complete the project?
- 6) Determine the process of analyzing function point metric of a ^{K5(10)} software?
- ⁷⁾ Compare and contrast black box testing and white box testing, K4(12) illustrating each with a relevant example.
- Evaluate the effectiveness of the Spiral model in managing project K5(15) risks compared to other models.
- **9)** Evaluate the impact of using the Prototyping model on user ^{K5(15)} satisfaction and acceptance of the final product.
- 10) Elaborate the waterfall model in detail. K6(18)