kmu-III COE office (EVE) 6/3/24

Exam Code: 206704 **Paper Code: 4267**

Programme: Master of Science (Computer Science) Semester IV

Course Title: Advanced Software Engineering

Course Code: MCSL-4111

Time Allowed: 3 Hours **Max. Marks: 80**

Note: Attempt five questions, selecting one question from each section. The fifth question may be attempted from any section. Each question carries 16 marks.

(Section A)

Q1) Explain various software Quality Assurance metrics. (16)

Q2) Explain:-
a) ISO 9000 standard
b) SPICE model

(2 X 8 = 16)

(Section B)

Q3) What is risk? Explain the process of risk identification, abatement and refinement in detail. (16)

Q4) Explain the complete process along with items involved in Software Change Management. (16)

(Section C)

Q5) Explain with example:-
a) Packages in structural diagram
b) Interfaces

(2 X 8 = 16)

Q6) a) What is UML? What are various building blocks of UML?
b) Explain relationships among classes in class diagram.

(2 X 8 = 16)

(Section D)

Q7) What is use case? Explain use case diagram with an example of library management system. (16)

Q8) Explain component and deployment diagrams with example. (16)

Exam Code: 206704 **Paper Code: 4268**
(20)

Programme: Master of Science (Computer Science)
Semester-IV

Course Title: Microprocessor and its Applications

Course Code: MCSL–4112

Time Allowed: 3 Hours **Max Marks: 80**

Note: Attempt five questions, selecting at least one question from each section. Fifth question can be attempted from any section. All question carry equal marks.

SECTION- A

1. Discuss general architecture of microprocessor system along with details different units? 16
2. (a) Discuss the storage device for storing data temporary/ permanently. 8
   (b) Discuss various applications of microprocessors? 8

SECTION- B

3. Explain the Internal architecture of 8086/8088 microprocessor? 16

4. Draw and explain pin configuration of 8088 microprocessor in detail? 16

SECTION- C

5. Write Short notes on
   (a) Memory control Signal 8
   (b) Read /write bus cycle 8
6. Explain memory read and write cycle for 8086 microprocessor in maximum mode with timing diagram? 16

SECTION- D

7. What is the role of USART chip? Discuss the block diagram of this chip? and various units of this chip? 16
8. What is the significance of IVT and use of different types of interrupts explain The need of interrupt interface in detail? 16

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Master of Science(Computer Science)
Semester-IV
Course Code: MCSL-4113
Course Title: Foundation of Statistical Computing
Time Allowed: 3 Hours **Max Marks: 80**

Note: Attempt five questions, selecting one question from each section. The fifth question may be attempted from any section. Each question carries 16 marks.

Section – A

1. Write the aadvantages and features of R Programming language 16
2. Explain the term sampling and cumulative statistics. 16

Section – B

3. Explain factors and tables in R with examples. 16
4. Explain CSV files and R Script files. How they are useful? 16

Section – C

5. Write a program to print Fibonacci series. 16
6. Explain input and output functions in R. 16

Section – D

7. Explain KNN model and K means model for predictive analysis. 16
8. Explain low level and high level plot functions. 16