KUMARAGURU
college of technology
character is life

MCA DEGREE EXAMINATIONS: MAY 2018

(Regulation 2017)

Second Semester

MASTER OF COMPUTER APPLICATIONS

P17CAI2304 : Software Engineering

COURSE OUTCOMES

CO1: Get an insight into the processes of software development.
CO2: Understand the principles and practices associated with the agile development methods.
CO3: Understand the problem domain, model and design software products.
CO4: Apply the business process reengineering techniques to solve problems.
CO5: Implement software quality management concepts.

Time: Three Hours   **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	List the various stakeholders in a software project.	CO1	[K_3]
2.	State the advantages of pair programming.	CO2	[K_2]
3.	What is the purpose of CRC modeling?	CO3	[K_3]
4.	How does an expected requirement differ from an exciting requirement?	CO3	[K_4]
5.	The coupling between two modules should be as low as possible. Why?	CO3	[K_5]
6.	Why is software architecture important?	CO1	[K_4]
7.	State the four elements that exist when an effective Software Configuration Management is implemented.	CO5	[K_2]
8.	What is refactoring?	CO4	[K_2]
9.	Differentiate between reverse engineering and restructuring.	CO4	[K_3]
10.	State any two key assumptions of an agile process	CO3	[K_2]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

Q.No. 11 is Compulsory

11. a)   Draw the use case diagram and activity diagram for course registration system explained below: CO3   [K5]

Students may log in into the system to register courses or retrieve all the courses they have already registered. Instructors may log in to the system to add courses or retrieve all the courses they have already added.
 A student cannot register for a course if:
   i)   he/she doesn't meet the prerequisites,
   ii) the students registered in the course exceed the capacity of the classroom,
   iii) the course has a time conflict with the other courses in the same term.

12. a)   Write short notes on agile scrum model.   (8)   CO2   [K2]

     b)   Write an XP user story for borrowing a book from the library.   (8)   CO2   [K5]

13. a)   Describe the spiral model highlighting its advantages and disadvantages.   (8)   CO1   [K3]

     b)   Explain the phases of a use case driven, architecture-centric iterative and   (8)   CO1   [K4]
          incremental model.

14. a)   How the requirements model is translated into the design model? Describe each   (8)   CO3   [K4]
          of four elements of the design model in brief.

     b)   What is coupling? Explain any 6 types of coupling.   (8)   CO3   [K2]

15. a)   Describe the activities of software reengineering.   (8)   CO4   [K2]

     b)   Draw the Business process reengineering model and explain its various activities.   (8)   CO4   [K2]

16. a)   Explain the software configuration management process in detail.   CO5   [K1]

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