Maharashtra Education society's
Institute of Management and Career Courses (IMCC), Pune

IT13: Object Oriented Software Engineering

Time: 60 min.   **Date: dd/01/2023**   **Marks: 20**

Note: -
1. **All questions are compulsory.**
2. **Figures to right indicate full marks.**
3. **State your assumptions clearly.**
4. **Draw neat diagram wherever necessary.**

Q.1	MCQ Questions (0.5M * 10)	(5)
	1. What is the advantage of recursive approach than an iterative approach a. Consumes less memory b. Less code and easy to implement c. Consumes more memory d. More code has to be written.	
	2. A Rapid Application Development Model is a. Another name of component -based development b. A useful approach when a customer cannot define requirements clearly. c. A high-speed adaptation of the linear sequential model. d. All of the above. 3. A Waterfall model of a software development is a. A reasonable approach when requirements are well known b. A good approach when a working program is required quickly c. The best approach to use projects with large development teams d. An old-fashioned model that is rarely used any more. 4. The incremental model of software development a. A reasonable approach when requirements are well defined. b. A good approach when a working a core product is required quickly. c. The best approach to use for projects with large development teams. d. A revolutionary model that is not used for commercial products.	

5. The spiral model of software development
   a. Ends with the delivery of the software product.
   b. Is more chaotic than the incremental model
   c. Includes project risks evaluation during each iteration.
   d. All of the above

6. A component-based development model is
   a. Dependent on object technologies for support.
   b. Only appropriate for computer hardware design
   c. Not able to support the development of reusable components.
   d. Not cost effective by known quantifiable software metrics.

7. Object-Oriented Systems are easier to
   a. Adapt to changing requirements
   b. Easier to maintain and more robust
   c. Promote greater design and code reuse
   d. All of the mentioned

8. The spiral model has two dimensions namely __ and __
   a. diagonal, perpendicular
   b. radial, angular
   c. radial, perpendicular
   d. diagonal, angular

9. After implementation of the system, system maintenance could be done for___
   a. Errors detected during the processing
   b. Revision of the formats of the reports
   c. Minor changes in the processing logic
   d. All of the mentioned

10. In software maintenance removing errors spotted by users is known as _____
    a. Corrective
    b. Adaptive
    c. Preventive
    d. Perfective

Q.2	What are the different phases of Requirement Engineering? **OR** Explain Functional and Nonfunctional Requirements.	**(5)**

Q.3	**Prepare SRS for following system**	**(10)**
	A *Swami Sweet* has decided to automate billing system. Sweet shop has several serving counters. Following functionalities will be considered - • RFID card will be used for entering details of purchasing at respective counter. • Bill is prepared at cash counter taking all entries made for the customer at various counter. • Bill amount is accepted either by cash or credit /debit card **OR** "*All about Bikes*" is company dealing in spare parts would like to change the existing sales system to a web-based application. The company has their products listed on the website through which they can receive inquiries. These inquiries are processed online. The delivery notes and invoice are also sent by mail which is used for cross validation by the client. **Prepare SRS for above system**	