M.Sc. (Informatics), Semester-III Examination, 2018
Paper: IT-35

Software Engineering-I

Time: 3hrs   Maximum Marks:75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt five questions in all. All questions carry equal marks

Q.1 Define the term "Software Engineering". What are the 3 key elements used in software engineering? With the help of a diagram, describe linear sequential waterfall model. Do a critical evaluation of linear sequential waterfall model.

Q. 2 Why software engineering is not software programming. Describe economic and Management aspects of software engineering.

Q. 3 What are Functional Requirements? How does Personal Software Process differ from Team Software Process?

Q. 4 Compare the waterfall, incremental, Rapid Application Development, prototyping and spiral model based on the following factors: methodology, advantages and disadvantages. (Draw a table to show the comparison).

Q. 5 Give reasons and suggest the appropriate process model for the development of the following systems

(1) An interactive system, which allows railway passengers to find train timings from terminals installed in stations.

(2) A university admission system which is being built to replace an existing system

(3) A state-of-the-art word processor for document writing

Q. 6 **E-Gift Shoppe** is a very important feature used in e-commerce to assist people making purchases online, similar to the US English term 'shopping cart'.
The business-to-consumer aspect of electronic commerce (e-commerce) is the most visible business use of the World Wide Web. The primary goal of an e-commerce site is to sell goods and services online. E-commerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web site providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace. This project deals with developing an e-commerce website for online different types of gifts. It provides the user with a catalog of different types of gifts available for purchase in the store. In order to facilitate online purchase a shopping cart is provided

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to the user. The system is implemented using a 3-tier approach, with a backend database, a middle tier of webserver and a suitable server side scripting language, and a web browser as the front end client.

The E-Gift Shoppe project has been developed to allow business grows larger and faster. This site will let customers to view and order products online from any part of the world. The site sells different types of Gifts. Under this website many products and services can be ordered.

The E-Gift Shoppe is expanded permanently through new products and services in order to offer a product portfolio corresponding to the market. Private customer and business customers can order the selected products of the E-Gift Shoppe Service online quickly and comfortably. Target groups of customer of the E-Gift Shoppe are huge. The customers can have a payment option through credit card only. In order to use the load writing procedure, the customer registers itself and receives a login for its purchases name. It is an Internet application

Propose a system with detailed requirement specifications keeping in mind the following activities with database integration approach.

- User friendliness is provided in the application with various controls.
- The system makes the overall project management much easier and flexible.
- There is no risk of data mismanagement at any level while the project development is under process.
- It provides high level of security with different level of authentication.
- Users from any part of the world can make use of the system.
- New system will process accurate results.