Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

|  |  |  |  |
| --- | --- | --- | --- |
| **Code :** | **17CS3060** | **Duration :** | **3hrs** |
| **Sub. Name :** | **REQUIREMENTS ENGINEERING** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | | **Questions** | **Course**  **Outcome** | | **Marks** |
| 1. | a. | | Write down the different levels of requirements related problems that you have encountered on your project phase and examine the expectation gap in customer’s perspective. | CO1 | | 10 |
| b. | | Identify the customers, including end users, who are responsible for providing business and user requirements on your project. Which items from the Bill of Responsibilities do these customers currently accept and practice?Which do they not? | CO1 | | 10 |
| **(OR)** | | | | | | |
| 2. | a. | | Identify the good practices followed during the elicitation, analysis and validation phase of a project development. | CO1 | | 15 |
| b. | | Express the essential knowledge an analyst should exhibit. | CO1 | | 5 |
|  |  | |  |  | |  |
| 3. | a. | | What are the typical roles of a business analyst? What essential skillsets is needed for requirements analyst? | CO1 | | 10 |
| b. | | Consider yourself as a business analyst and you’re near the launch of a new project or in the midst of construction. How will you document the business requirements by using the vision and scope template? | CO2 | | 10 |
| **(OR)** | | | | | | |
| 4. | a. | | Explain the role of product champion in structuring the customer-development collaborative partnership and identify the possible activities of the product champion. | CO2 | | 10 |
| b. | | Write down the benefits of use case diagram and draw the use case diagram and context diagram for the following scenario:  A company consists of departments and employees. The department has responsibility for zero, one or more projects. The company has: name, address and telephone. The department has a name. The project has a name. An employee has name, an address, a social security number (SSN) and is participating in zero, one or more projects. | CO5 | | 10 |
|  |  | |  |  | |  |
| 5. | a. | | Write about the template for writing functional requirements from the user’s perspective. | CO3 | | 10 |
| b. | | A system that controls a recycling machine for returnable bottles and cans is used. The machine will allow a customer to return bottles or cans on the same occasion. When the customer returns an item, the system will check what type has been returned. The system will register how many items each customer returns and, when the customer asks for a receipt, the system will print out what he deposited, the value of the returned items and the total return sum that will be paid to the customer. The system is also be used by an operator. The operator wants to know how many items of each type have been returned during the day. At the end of the day, the operator asks for a printout of the total number of items that have been deposited in the machine on that particular day. The operator should also be able to change information in the system, such as the deposit values of the items. If something is a mess, for example if a can gets stuck or if the receipt rolls is finished, the operator will be called by a special alarm signal.  For the above scenario draw the activity diagram with swimlane concept. | CO4 | | 10 |
| **(OR)** | | | | | | |
| 6. | a. | List the number of elements represented in data dictionary and explain in detail. | | | CO3 | 10 |
| b. | Illustrate dataflow diagram with an example. | | | CO4 | 10 |
|  |  |  | | |  |  |
| 7. | a. | What is a change control process? Explain the roles and responsibilities of change control Board. | | | CO5 | 20 |
| **(OR)** | | | | | | |
| 8. | a. | | Explain the various steps involved in requirement traceability procedure. | CO6 | | 10 |
| b. | | Is requirement traceability feasible? Is it necessary? Justify you answer. | CO6 | | 10 |
|  | | | **Compulsory**: |  | |  |
| 9. | a. | | Write short notes of the following:   1. Risks in requirement elicitation. 2. Risks in requirement validation. | CO4 | | 10 |
| b. | | Illustrate how requirements are related to project processes. | CO6 | | 10 |