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

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**End Semester Examination – Nov/Dec– 2018**

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| **Code :** | **14CS2056** | **Duration :** | **3hrs** |
| **Sub. Name :** | **DESIGN PATTERNS** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Write note on i. Inheritance versus Composition. ii.Delegation. | CO1 | 10 |
| b. | As per the requirement, different category of clients is maintained as objects. They are discriminated by their marital status (married/bachelor), employment (employee/ self-employment). Produce a pattern and describe the same. Briefly discuss about the steps how to select a design pattern? | CO2 | 10 |
| (OR) | | | | |
| 2. | a. | Give an account on MVC architecture with a neat diagram? | CO1 | 10 |
| b. | Demonstrate dynamic method despatch using a suitable example | CO1 | 10 |
|  |  |  |  |  |
| 3. |  | Discuss in detail about the document structure and embellishing the user interface of the “lexi” editor with proper example. | CO1 | 20 |
| (OR) | | | | |
| 4. | a. | Elaborate the user operations of an editor. | CO1 | 10 |
| b. | What is a glyph? Explain its structure. | CO1 | 10 |
|  |  |  |  |  |
| 5. | a. | Compare and contrast three types of design pattern with suitable example. | CO3 | 10 |
| b. | Make a compatibility between student and musician using appropriate program. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | Describe Builder design pattern with respect to intent, motivation, applicability, structure, collaborations and implementation | CO1 | 10 |
| b. | Produce an apartment-flat cost estimation design according to their building square feet area, furnishment and car parking. Use decorator pattern to accomplish the design. | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | Give the structure and participants of following design pattern.   1. Chain of responsibility. 2. Flyweight. | CO1 | 10 |
| b. | How to reuse the objects by storing in an array list. Demonstrate with suitable code. | CO3 | 10 |
| (OR) | | | | |
| 8. |  | Write a complete code to demonstrate the stratergy pattern to replace different optimization algorithm of job scheduling. | CO2 | 20 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | List down the expectations from Design pattern. | CO1 | 10 |
| b. | Demonstrate the visitor pattern with proper code. | CO2 | 10 |