

Code No: 155SG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, February - 2022

DESIGN PATTERNS

(Common to CSE, IT)

Time: 3 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

- 1.a) What is an object? How objects are instantiating a class. Explain.
b) What is super? Explain about interfaces in object-oriented system. [7+8]
- 2.a) What are the design aspects that can vary design patterns?
b) Highlight the advantages and disadvantages of delegation. [8+7]
- 3.a) Describe the widget glyph classes to implement multiple look-and-feel standards.
b) How many commands issued by user in user operations? Explain. [8+7]
4. How character glyphs and the spelling checker object work together? Illustrates using interaction diagram. [15]
- 5.a) What are the implementation issues of singleton pattern? Explain with sample code.
b) Explain the consequences of singleton pattern. [9+6]
- 6.a) Explain known uses of prototype. List the additional benefits of prototype pattern.
b) Explain creational design patterns using building a maze for a computer game. [7+8]
- 7.a) Discuss about the participants of Adapter pattern and explain the functions of each.
b) What is the intent and motivation of Façade pattern? Explain. [8+7]
- 8.a) What is mediator pattern? Explain motivations of mediator pattern with participants.
b) Write about the structure and participants of observer design pattern. [8+7]

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