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**NATIONAL INSTITUTE OF TECHNOLOGY ANDHRA PRADESH**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**III B.Tech I Semester MID Examination, September 2024**

**CS340-Object oriented programming (OE)**

**Date: 24-10-2024 Max. Marks: 30**

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| 1 | a) | Describe exception of creating a ‘checked’ and ‘unchecked’ in Java? Provide an example illustrating their use. | 3M |
| 1 | b) | Demonstrate interface class and how it is used in Java with an example. | 3M |
| 2 |  | Write a Java program by considering a class Shape with a method draw(). You then create two subclasses, Circle and Rectangle. Additionally, you create a method draw (int radius) in the Circle class and a method draw(int length, int width) in the Rectangle class. | 6M |
| 3 |  | Illustrate the principle concepts of object oriented programming like polymorphism, Inheritance and object in java with an examples? | 6M |
| 4 |  | Write a Java program to create an interface Playable with a method play() that takes no arguments and returns void. Create three classes Football, Volleyball, and Basketball that implement the Playable interface and override the play() method to play the respective sports. | 6M |
| 5 | a) | Demonstrate how does abstract class differ an interface in Java with an example program. | 3M |
|  | b) | Illustrate the concepts of control structures like if-else, while and break in java with an examples? | 3M |