

**CHRIST (Deemed to be University)**  
**BANGALORE CENTRAL CAMPUS**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**CIA Component -II**

**COURSE CODE/ COURSE NAME: MCA272 – PROGRAMMING IN JAVA**

**PROGRAM – II MCA B**

**Time Duration – 1.30 hrs Marks – 30 Marks**

An Advertisement company keeps the main information about the advertisement such as Advertisement\_id, Client\_Name, start\_date of advertisement in a class called **Advertisement**. From this class derive two classes: **Commercial\_Add** and **Free\_Add**. **Commercial\_Add** class keeps the additional information such as size\_of\_add in cm and prize of add per cm. The function add\_Cost() calculate and return the cost of the add. **Free\_Add** class adds free\_add\_time\_duration ( in months).

The program should have the following features (CO1, CO2 & CO3)

1. Array of objects to create multiple instances of the **Commercial\_Add** and **Free\_Add** classes ( Minimum three objects)
2. Automatic generation of the advertisement\_id
3. Use of **super** keyword to pass parameters to parent class constructors and **this** keyword wherever possible.

Implement the program in java with the following options

1. Read values to **Commercial Add** and **Free Add** instances
2. Display values of **Commercial Add** and **Free Add** instance
3. Display the add cost for commercial add for the given advertisement id.
4. Display all the free adds with a duration more than 3 months
5. Display the total income from commercial add

Note: You can add additional functions in the classes wherever required.

