# Constructor Questions (C++)

## 1) Default Constructor – Shopping

**Question:**
Create a class `ShoppingCart` with a default constructor that initializes an item name as `"Purse"` and price as `15000`. Display the item details.

**Sample Input:**
(No input required, default values used)

**Sample Output:**

```
Item: Purse
Price: 15000
```

## 2) Parameterized Constructor – Dog

**Question:**
Create a class `Dog` with a parameterized constructor that takes dog's name and age. Display the details.

**Sample Input:**

```
Dog Name: Micky
Age: 12
```

**Sample Output:**

```
Dog's Name: Micky
Dog's Age: 12 years
```

## 3) Copy Constructor – Vehicle

**Question:**
Create a class `Scooty` with attributes brand and price. Use a copy constructor to copy details of one scooty object into another.

**Sample Input:**

```
Brand: Honda Activa
Price: 75000
```

**Sample Output:**

```
Original Scooty -> Brand: Honda Activa, Price: 75000
Copied Scooty   -> Brand: Honda Activa, Price: 75000
```

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## 4) Combined Constructors – Book

**Question:**
Create a class `Book` with three types of constructors:

- **Default Constructor** → sets title as `"Not Assigned"` and price as `0`.
- **Parameterized Constructor** → takes title and price from user.
- **Copy Constructor** → copies details of one book to another.

Demonstrate all three in main().

**Sample Input:**

```
Book 1: Default
Book 2: Title = "C++ Basics", Price = 350
Book 3: Copy of Book 2
```

**Sample Output:**

```
Book 1 -> Title: Not Assigned, Price: 0
Book 2 -> Title: C++ Basics, Price: 350
Book 3 -> Title: C++ Basics, Price: 350
```

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## 5) Combined Example – Mobile Phone

**Question:**
Create a class `Mobile` with attributes brand, model, and price.

- Use **Default Constructor** to assign `"Unknown", "NA", 0`.
- Use **Parameterized Constructor** to initialize with user input.
- Use **Copy Constructor** to create a duplicate mobile object.
  In `main()`, demonstrate all three.

**Sample Input:**

```
Mobile 1 -> Default
Mobile 2 -> Brand = "Samsung", Model = "Galaxy S21", Price = 55000
Mobile 3 -> Copy of Mobile 2
```

**Sample Output:**

```
Mobile 1 -> Brand: Unknown, Model: NA, Price: 0
Mobile 2 -> Brand: Samsung, Model: Galaxy S21, Price: 55000
Mobile 3 -> Brand: Samsung, Model: Galaxy S21, Price: 55000
```

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