|  |  |
| --- | --- |
| **SESSION** | **APRIL 2025** |
| **PROGRAM** | **Bachelor of CoMPUTER APPLICATIONS (BCA)** |
| **SEMESTER** | **I** |
| **course CODE & NAME** | **DCA1105 Fundamentals of Mathematics** |
|  |  |
|  |  |

**SET-I**

**Q1. Write the composite function if**

1. **and**
2. **and .**

### **Ans 1.**

### **Composite Functions**

#### **(a)** Given:

We are asked to find: This means substitute into .

**Solution:**

Now expand:

**Ans:**

Its Half solved only

Buy Complete assignment from us

**Price – 190/ assignment**

**MUJ Manipal University Complete SolvedAssignments MARCH 2025**

buy cheap assignment help online from us easily

we are here to help you with the best and cheap help

**Contact No – 8791514139 (WhatsApp)**

**OR**

**Mail us-** [bestassignment247@gmail.com](mailto:bestassignment247@gmail.com)

**Our website -** [www.assignmentsupport.in](http://www.assignmentsupport.in)

**Q2. Evaluate the followings:**

**(i) (ii)**

### **Ans 2.**

### **Limits**

#### **(i)**

Evaluate:

**Step-by-step:**

* Identify the highest power of in both numerator and denominator:
* Divide numerator and denominator by

**Q3. Find the value of and .**

### **Ans 3.**

#### **(a)**

We can write:

**Use identity:**

Let , :

### **SET-II**

**Q4. Decompose into partial fraction.**

### **Ans 4.**

### **Decompose into Partial Fractions:**

Given:

We want to write:

**Step 1: Combine the RHS**

**Q5. Consider the function . Determine where the function is increasing or decreasing.**

## **Ans 5.**

## **Determine where the function is increasing or decreasing**

Given function:

### **Step 1: Find the first derivative**

To determine where the function is increasing or decreasing, we use the first derivative test:

**Q6. Determine the value of the following logarithms:**

**(i) (ii) 1**

**Ans 6.**

### **(i)**

We want to evaluate:

Write 25 as :