

# CC 01 (Calculus, Geometry & Differential Equations)

F.M: 10 TIME: 30 MIN

---

\* Required

1. Email \*

---

2. NAME \*

---

3. ROLL NUMBER \*

---

Untitled Section

4.

1.  $f(x) = ||x| - 1|$  the points where  $f(x)$  is not differentiable.

a. 0,  $\pm 1$

b.  $\pm 1$

c. 0

d. 1

Mark only one oval.

A

B

C

D

5.

2.  $\int_0^{\frac{\pi}{2}} (\cos x)^{11} (\sin x)^9 dx =$

a.  $\frac{1}{10!}$

b.  $\frac{5!6!}{11!}$

c.  $\frac{10!}{6!5!}$

d. 0

Mark only one oval.

 A B C D

6.

3.  $y = (\cos x)^2 (\sin x)^3$ , then find  $\frac{d^{105}y}{dx^{105}}$  at  $x=0$

a.  $\frac{1}{16} (2 + 3^{105} - 5^{105})$

b.  $\frac{1}{16} (2 - 3^{105} - 5^{105})$

c.  $\frac{1}{16} (2 + 3^{105} + 5^{105})$

d. 0

Mark only one oval.

 A B C D

7.

4. Solve  $(px-py)(py+x)=2p$ 

a.  $y^2 = x + \frac{c}{c+1}$

b.  $y^2 = cx^2 - \frac{2c}{c+1}$

c.  $x^2 = cy + \frac{c}{c+1}$

d. None of these

*Mark only one oval.* A B C D

8.

5. Solve  $6y^2 dx - x(x^3 + 2y)dy = 0$ 

a.  $\frac{y}{x^3} = \frac{-\log(x)}{2} + c$

b.  $\frac{y^2}{x^3} = \frac{-\log(x)}{2} + c$

c.  $\frac{y}{x^3} = \frac{\log(x)}{2} + c$

d. None of these

*Mark only one oval.* A B C D

---

This content is neither created nor endorsed by Google.

Google Forms