

# St. Austin's Sr. Sec. School

Self-Assessment Test 2019-20

Subject: Mathematics

M. Marks:60

Class: XII

Differential Equations

M. Time:

2:30 Hrs.

SECTION A (Each question carries 2 marks)

Q1.  $\sec^2 x \tan y \, dy + \sec^2 y \tan x \, dx = 0$

Q2.  $x \, dy - y \, dx = \sqrt{x^2 + y^2} \, dx$

Q3.  $\frac{dy}{dx} = \frac{7x-3y-7}{7y-3x+3}$

Q4.  $(2x - 10y^3) \frac{dy}{dx} + y = 0$

Q5.  $\frac{dy}{dx} + (2x \tan^{-1} y - x^3) (1 + y^2) = 0$

Q6.  $\tan x \cos y \frac{dy}{dx} + \sin y - e^{\sin x} = 0$

Q7.  $\frac{dy}{dx} + \frac{y}{x} \log y = \frac{y}{x^2} (\log y)^2$

Q8.  $\frac{dy}{dx} = \frac{1-3x-3y}{2x+2y}$

Q9.  $(1+y^2) \, dx = (\tan^{-1} y - x) \, dy$

Q10.  $\frac{dy}{dx} = \frac{x(2\log x + 1)}{\sin y + y \cos y}$

*Kindly circulate the information about the test schedule to every friends which are in your contact so that everyone are benefited.*

**Thank you**

**Dharmendra Sankhla**

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