

No. of Printed Pages : 08

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PAPER ID : 29906

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B. Tech. Examination 2021-22

(Even Semester)

**DIFFERENTIAL EQUATIONS AND
FOURIER ANALYSIS****Time : Three Hours****/Maximum Marks : 60****Note :- Attempt all questions.****SECTION - A**I. Attempt all parts of the following : 8 x 1 = 8

(a) Find the order and degree of the differential equation :

$$\left(\frac{dy}{dx} \right)^{\frac{1}{2}} + y = x^{\frac{1}{3}}$$

(b) Find the particular integral of the differential equation :

$$\frac{dy^2}{dx^2} + a^2 y = \sin ax$$

I.P.T.O.