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SECTION :- "B"

DEPARTMENT :- CIVIL ENGINEERING

ASSIGNMENT :- DIFFERENTIAL EQUATIONS (02)

SUBMITTED TO :- MAM SUMANA

DATE :- 17 JUNE - 2020

SUBJECT NAME :- DIFFERENTIAL EQUATIONS



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Question :- 01

Application of partial differential equation
in Engineering.

⇒ To solve the functions with variables,
One variable is kept constant and
Differential Co-efficient of other variable
is found with to variable.

e.g :-

① Time of Oscillation, $t = 2\pi\sqrt{l/g}$
i.e. $t = f(l, g)$.

② Torque $T = l\alpha$
i.e. $T = f(l, \alpha)$

③ pressure of an ideal gas,
 $p = nRT/V$
i.e. $p = f(T, V)$.

The differential Coefficient is obtained
by partial differential.

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②

⇒ PDEs are used to solve the waves equations.

Wave equation is differential expressing the properties of motion in waves.

