

S.R. FATEPURIA COLLEGE  
INTERNAL ASSESSMENT - 2020  
PHYSICS (HON)

2nd SEMESTER

Full marks - 10

Answer any one

- ① Electrostatic potential is given by —  
 $V(x, y) = 4e^{2x} + f(x) - 3y^2$ , in free space and the  
x-component of electric field and potential are  
zero at origin, then find the value of  $f(x)$ ? 10
- ② Write down Bio-Savart Law?  
Find out magnetic field due to current carrying  
circular wire at the centre and at the axis of  
the circular wire? 2+4+4