

5th Semester Mathematics (Honours)

Assignment, Paper - DSE-1

Total Mark - 20

- 1) PQRS TU is a regular hexagon of side 'a' and at P forces act, represented in magnitude and direction by  $\overline{PQ}, 2\overline{PR}, 3\overline{PS}, 4\overline{PT}, 5\overline{PV}$ .

Find the magnitude of the resultant.

[5]

- 2) A string of length 'a', forms the shorter diagonal of a rhombus formed of four uniform rods, each of length 'b' and weight W, which are hinged together. If one of the rods be supported in a horizontal position, find the tension of the string in simplified form.

[5]

- 3) Write a short note on ~~Geo.~~ Stationary Satellites. (use your own words as much as possible).

[5]

- 4) Discuss analytically the simple harmonic motion (SHM).

[5]

Submit latest by 23rd July '2021