**Structure of Question- Math1 (Final)**

Q.1 Short questions (Any TEN) (10 x 2 = 20)

* Identify, sketch and write the equation
  + Circle
  + Conics
* Angle of rotation to remove the xy-term
* Transformation polar to rectangular/ rectangular to polar and plot.
* Vectors
* Partial derivatives
* Stationary points

Q.2. Answer any 4 Questions (4 x 5 = 20)

Conics

Identify and sketch the conic (shifting only), showing center, vertices and foci.

Identify and sketch the conic (Rotation only), showing center, vertices and foci.

Vectors

Vectors and its Application: Area of a parallelogram, Work done by a force field, volume, area.

Partial derivatives

Verify partial differential equation.

Application: Find the local maximum/ minimum, saddle points.