M.Sc. DEGREE EXAMINATION, EVEN SEMESTER 2021 II Year III Semester Nuclear Physics and Particle Physics

Max.marks :25

Answer any **FIVE** questions $(5 \times 5 = 25)$ Marks

- 1. Explain the spin dependence of nuclear forces.
- 2. Describe the Q value of nuclear reactions.
- 3. Explain briefly the liquid drop model of nucleus.
- 4. Discuss the internal conversion during nuclear decay.
- 5. Give the details of leptons and hadrons.
- 6. Write an account of various conservation laws in nuclear reaction.
- 7. Briefly give a short note on the quark model of elementary particles