Roll No. | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 07

B.Sc. (CS) (Sem.–6)

PARTICLE PHYSICS

Subject Code : BCS-604

M.Code : 72784

Date of Examination : 18-05-2023

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. Answer briefly :

a) Give importance of Bethe Bloch formula.

b) What do you understand by Bremsstrahlung?

c) What is radiation length?

d) Briefly discuss the theory of Synchrotron.

e) What is the principle of working of ionization chamber?

f) What are leptons?

g) What is isospin?

h) Discuss the concept of parity.

i) What are strange particles?

j) What is cross section?

SECTION-B

2. Explain the phenomenon of pair production.

3. Discuss in detail the working of cyclotron.

4. Explain the need of colliders and linear accelerators.

5. Explain the working of scintillation counters.

6. Describe in detail the working of solid state detectors.

7. Write a note on charge conjugation and antiparticles.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.