Shree H.N.Shukla group of colleges

PHYSICS
T.Y.B.Sc. (Sem. V) (CBCS)
Unit Test examination
PAPER- 502
UNIT 5 - RELATIVITY

DATE :   **Total marks :30**

Instructions: All questions are compulsory.
   The right side figure indicates total marks of the question.
   Draw the figure wherever necessary.
   Write answers of all the questions in main answer sheets.

SECTION-A

Q.1: One marks questions: **[5 MARKS]**

1   What do you mean by an inertial reference frame ?

2   Write formulla for speed of light in terms of permiability of vaccum.

3   The locus of all points accesible to you is _____.

4   The trajectory of a particle on a minokwoski diagram is called _____ .

5   Explain : Relativity.

SECTION – B

Q.2 (A): Short Questions: Write all three : [2 Marks each]   [6 MARKS]

1   How much energy would be released if 1 kg of substance gtes fully converted into energy.

2   Explain : non inertial refrance frame.

3   How much energy would be released if 2 kg of substance gtes fully converted into energy.

Q.2 (B) : Short questions: Write all three: [3 Marks each]   [9 MARKS]

1   Explain Lorentz contraction.

2   Write enstein's postulate for relativity.

3

Q.2 (C): Write Detail Note on [Any two]: [5 Marks each]   [10 MARKS]

1   Write note on : space time diagram .

2   Write note on : Relativistic energy and Momentum .

3   Explain : Time delation.

4   Explain : The lorentz transformation.