

## Physics Fsc Part 1 Chapter 11 Online Test

| Sr | Questions   | Answers Choice   |
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| 1  | The mass of an object will be doubled at the speed.   | A. 2.6 x 10 <sup>7</sup> m/s B. 1.6 x 10 <sup>8</sup> m/s C. 2.6 x 10 <sup>8</sup> m/s D. None of these  |
| 2  | The length of rod at rest as measurd by an observer moving parallel to it with relativistic speed is given by | A.   =   <sub>o</sub> [1 - V2/C2]<br>B.   =   <sub>0</sub> 1 - V2/C2<br>C.   =   <sub>o</sub> / 1-<br>V <sup>2</sup> C <sup>2</sup><br>D.  0 =    1-<br>V <sup>2</sup> /C <sup>2</sup> |
| 3  | A no intertial frame of reference.  | A. Moves with some acceleration  B. ls always rest on earth C. Moves with uniform velocity D. All of the above   |
| 4  | Which one of the following physical quantities is indpednent of relativistic speed.                           | A. Charge B. Length C. Mass D. Time  |
| 5  | Relativistic velocity is of the order of.   | A. 1/15 of the velocity of light B. 1/20 of the velocity of light C. 1/10 of the velocity of light D. 1/25 of the velocity of light  |
| 6  | Relativistic mechanics yields results different from classical mechanics for objects moving with.             | A. Low velocity B. Velocity equal to that of sound waves C. Veloitiy geater than sound waves D. Velocity approaching that of lignt   |
| 7  | If a material object moves with the speed of light 'c' its mass becomes                                       | A. Equal to its rest mass B. Infinite C. Four times of its rst mass D. Double of its rest mass   |
| 8  | The speed of beam light of a car while moving with high speed as compared to its rest positionis              | A. Greater B. Less C. Same D. Zero   |
| 9  | If an observeris moving in the same direction as a sound wave, the velocity of the wave seems to be           | A. Less B. More C. Constant D. Sum of the two velocities   |
| 10 | A rod at rest appears to an observer just a mere point when he moves across it as speed.                      | A. Equal to the speed of light B. Double the speed of light C. Three-fourth the speed of light D. None of the above  |
| 11 | The theory of relativity was proposed in  | A. 1920 B. 1905 C. 1915 D. 1895  |
| 12 | it the rest mass of a particle $m_0$ increased to $m$ due to its high speed then its kinetic energy is.       | A. ( m - mo ) c <sup>2</sup> B. 1/2 mv2 C. 1/2 mc <sup>2</sup> D. 1/2 (m -m <sub>o</sub> 0   |
| 13 | The energy 'E' eqivalent to mass given by   | A. Ec2 B. E/C2 C. E/C D. C/P>  |
|    |   |  |

| 14 | If a space craft of rest legnth $\rm II_0$ is movng with a speed equal to speed of light, then its relativstic legnth $\rm I$ , will be | A.   =   <sub>o</sub> B.   =   <sub>o</sub> /2 C.   = 0 D. All of these                               |
|----|---|---|
| 15 | A photon is particle of light. What is its mass when it moves with 0.9 C?   | A. 9.1 x 10 <sup>-31</sup> kg B. 1.67 x 10 <sup>- 19</sup> kg C. 1.67 x 10 <sup>- 27</sup> kg D. Zeri |