

Physics Fsc Part 1 Chapter 11 Online Test

Sr	Questions	Answers Choice
1	Relativistic velocity is of the order of.	A. $\frac{1}{15}$ of the velocity of light B. $\frac{1}{20}$ of the velocity of light C. $\frac{1}{10}$ of the velocity of light D. $\frac{1}{25}$ of the velocity of light
2	The theory of relativity was proposed in	A. 1920 B. 1905 C. 1915 D. 1895
3	The energy 'E' equivalent to mass given by	A. Ec^2 B. E/C^2 C. E/C D. C^2/E
4	A no inertial frame of reference.	A. Moves with some acceleration B. Is always rest on earth C. Moves with uniform velocity D. All of the above
5	A photon is particle of light. What is its mass when it moves with 0.9 C?	A. 9.1×10^{-31} kg B. 1.67×10^{-19} kg C. 1.67×10^{-27} kg D. Zero
6	The speed of beam light of a car while moving with high speed as compared to its rest position is	A. Greater B. Less C. Same D. Zero
7	If an observer is 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
8	The mass of an object will be doubled at the speed.	A. 2.6×10^7 m/s B. 1.6×10^8 m/s C. 2.6×10^8 m/s D. None of these
9	Relativistic mechanics yields results different from classical mechanics for objects moving with.	A. Low velocity B. Velocity equal to that of sound waves C. Velocity greater than sound waves D. Velocity approaching that of light
10	if the rest mass of a particle m_0 increased to m due to its high speed then its kinetic energy is.	A. $(m - m_0) c^2$ B. $\frac{1}{2} m v^2$ C. $\frac{1}{2} m c^2$ D. $\frac{1}{2} (m - m_0) c^2$
11	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 rest mass D. Double of its rest mass
12	Which one of the following physical quantities is independent of relativistic speed.	A. Charge B. Length C. Mass D. Time
13	If a space craft of rest length ' l_0 ' is moving with a speed equal to speed of light, then its relativistic length l, will be	A. $l = l_0$ B. $l = \frac{l_0}{2}$ C. $l = 0$ D. All of these
14	A rod at rest appears to an observer just a mere point when he moves across it as	A. Equal to the speed of light B. Double the speed of light C. Three fourth the speed of light

14	speed.	<p>C. $\frac{1}{\sqrt{1 - v^2/c^2}}$ times the speed of light</p> <p>D. None of the above</p>
15	The length of rod at rest as measured by an observer moving parallel to it with relativistic speed is given by	<p>A. $l_0 \sqrt{1 - v^2/c^2}$</p> <p>B. $l_0 / \sqrt{1 - v^2/c^2}$</p> <p>C. $l_0 / (1 - v^2/c^2)$</p> <p>D. $l_0 \sqrt{1 - v^2/c^2}$</p>