## Physics ECAT Pre Engineering Chapter 4 Work and Energy

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | Work is a | A. Scalar quantity<br>B. Vector quantity<br>C. Base quantity<br>D. None of these |
| 2 | Work is product of: | A. Force and velocity<br>B. Heat and energy<br>C. Force and displacement<br>D. None of these |
| 3 | The tidal energy is produced due to rotation of Earth relative to: | A. Moon<br>B. Sun<br>C. Oceans<br>D. Water |
| 4 | Area under the force displacement graph gives | A. Power<br>B. Work<br>C. Heat<br>D. Energy |
| 5 | The field in which work done is moving body between two points depends upon the path followed is called: | A. Conservative filed<br>B. Non-conservative field<br>C. Electric field<br>D. None of these |
| 6 | The angle between centripetal force and displacement of the body moving in a circle is: | A. 0°<br>B. 90°<br>C. 180°<br>D. None of these |
| 7 | When a force of 0.5 N displaces a body through a distance of 2m in the direction of force, the work done is | A. 0.5 J<br>B. 2 J<br>C. 0.25 J<br>D. 1 J |
| 8 | The work done moving a body between two points in a conservation field is independent of the: | A. Direction<br>B. Force applied<br>C. Path followed by the body `<br>D. Power |
| 9 | The work done by a force, keeping an object in circular motion with constant speed is: | A. Zero J<br>B. 1 J<br>C. 0.1 J<br>D. 0.01 J |
| 10 | The work performed on an object does not depend on: | A. Force applied<br>B. Angle at which force is inclined to the displacement<br>C. Initial velocity of the object<br>D. Displacement |

| 11 | Tick the conservative force | A. Tension in a string<br>B. Air resistance<br>C. Elastic spring<br>D. Frictional force |
|---|---|---|
| 12 | Work has the dimensions as that of | A. Torque<br>B. Angular momentum<br>C. Linear momentum<br>D. Power |
| 13 | Work is a scalar product of | A. Force, Velocity<br>B. Velocity, Displacement<br>C. Force, Displacement<br>D. Force, Momentum |
| 14 | Power is a : | A. Vector quantity<br>B. Base quantity<br>C. Scalar quantity<br>D. None of these |
| 15 | Which of the following types of force can do no work on the particle on which it acts | A. Frictional force<br>B. Gravitational force<br>C. Electric force<br>D. Centripetal force |
| 16 | The ultimate source of money sources of energy is: | A. Sun<br>B. Air<br>C. Water<br>D. Petroleum |
| 17 | The value of escape velocity of Earth planet comes out to be: | A. 11 m/sec<br>B. 11 km/sec<br>C. 11 km/hour<br>D. 11 cm/sec |
| 18 | In the force applied to parallel to the direction of motion, then the work done is: | A. Positive<br>B. Negative<br>C. Zero<br>D. None of these |
| 19 | The unit of work in CGS system is | A. Joule<br>B. Erg<br>C. Dyne<br>D. Watt |
| 20 | A field in which the work done is moving a body along closed path is zero is called: | A. Nuclear filed<br>B. Conservative field<br>C. Gravitational field<br>D. Non-conservative field |