MDCAT Physics Chapter 3 Work ,Energy & Power Online Test

Sr	Questions	Answers Choice
1	A man M_1 of mass 80 kg runs up a staircase in 15s. Another man M_2 also of mass 80 kg runs up the same staircase in 20s. The ratio of the power developed by them will be	A. 1 B. 4/3 C. 16/9 D. none of these
2	When the velocity of a body is doubled:	A. Its K.E is doubled B. Its P.E is doubled C. Its momentum is doubled D. Its acceleration is doubled
3	A 50 kg man with 20 kg load on his head climbs up 20 steps of 0.25 m height each. The work done in climbing is	A. 5 J B. 350 J C. 100 J D. 3430 J
4	Work done in raising a box depends on:	A. How fast it is raised B. The strength of the man C. The height by which it is raised D. None of the above
5	The energy which an -e acquires when accelerated through a potential difference of 1 volt is called?	A. 1 Joule B. 1 Electron volt C. 1 Erg D. 1 Watt
6	You lift a heavy book from the floor of the room and keep it in the book-shelf having a height 2 m. In this process you take 5 seconds. The work done by you will depend upon:	A. Mass of the book and time taken B. Weight of the book and height of the book-shelf C. Height of the book-shelf and time taken D. Mass of the book, height of the book-shelf and time taken
7	A person holds a bucket of weight 60N. He walks 7 m along the horizontal path and then climbs up a vertical distance of 5 m. The work done by the man is:	A. 300 N-m B. 420 N-m C. 720 N-m D. none of these
8	An elevator's motor produces 3000 W power. The speed With Which it can lift a 1000 kg load is:	A. 30.6ms⁻¹ B. 0.306ms⁻¹ C. 3.06ms⁻¹ D. 300.3ms⁻¹
9	A man pushes a wall and fails to displace it. He does:	A. Negative work B. Positive but not maximum work C. No work at all D. Maximum work
10	You lift a suit case from the floor and keep it on a table. The work done by you on the suitcase does not depend on	A. the path taken by the suitcase B. weight of the suitcase C. initial and final position D. None
11	An engine pumps out 40 kg of water in one second. The water comes out vertically upwards with a velocity of 3ms-1 . What is the power of engine in kilowatt?	A. 1.2kW B. 120kW C. 12kW D. 1200kW
12	A bomb of mass 30 kg at rest explodes into two pieces of masses 18 kg and 12 kg. The velocity of 18 kg mass is 6 ms^1 The KE of other mass is	A. 324 J B. 256 J C. 245 J D. 524 J
13	The time taken by an engine of power 10 kW to lift a mass of 200 kg to a heightof 40 m is (g + 10ms2)	A. 2 sec B. 4 sec C. 8 sec D. 16sec
14	A light and a heavy body have equal momenta. Which one has greater K.E?	A. The light body B. The heavy body C. The K.E are equa D. Data is incomplete
		A. 20

15	An electric motor exerts a force of 40 N on a cable and pulls it by a distance of 30 m in one minute. The power supplied by the motor in watts is	B. 200 C. 2 D. 10
16	Which of the following work is greater?	A. + 100J B. 0 J C. - 100J D. Both A and B are equal
17	If the velocity of a body becomes half, the kinetic energy of body will become	A. One fourth B. Double C. Four times D. Half
18	The gravity does no work, when the body moves:	A. Horizontally B. Vertically upwards C. Vertically downward D. At an angle of 45o with horizontal
19	If the momentum of a body is increased n times, its kinetic energy increases:	A. n times B. 2 n times C. √□ times D. n 2 time
20	Car X is traveling at half the speed of car Y. Car X has twice mass of car Y. Which statement is correct?	A. Car X has half the kinetic energy of car Y B. Car X has one quarter of the kinetic energy of car Y C. Car X has twice the kinetic energy of car Y D. The tow cars have the same kinetic energy