NAT I Medical Physics

Sr	Questions	Answers Choice
1	A 2 kg body and a 3 kg body have equal momentum if the kinetic energy of 3 kg body is 10 j, the KE of 2 kg body will be	A. 6.66 j B. 15 j C. 22.5 j D. 45 j
2	A particle moves along a circular path under the action of a force. The work done by the force is	A. Zero B. Positive and non-zero C. Negative and non zero D. None of above
3	A man pushes a wall but fails to displace it. He does:	A. Negative work B. Maximum positive work C. Positive work but not maximum D. No work
4	A bullet is short from a rifle. As a result the rifle recoils, The kinetic energy of rifle as compared to that of bullet is	A. Less B. Greater C. Equal D. Cannot be concluded
5	How much water a pump of 2kW can raise in one minute to a height of 10 m. take g = 10 m/s^2?	A. 1000 liters B. 1200 liters C. 100 liters D. 2000 liters
6	Two bodies with masses M_A and M_B are moving with equal kinetic energy.Their linear moments are numerically in a ratio $\|P_A\| : \|P_B\|$ will be:	A. M_B: M_A B. M_A: M_B C. √M_A : √M_B D. M_A²: M_B²
7	Two bodies of masses m_1 and m_2 have equal momentum their kinetic energies E_1 and E_2 are in the ratio	A. √m₁ : √m₂ B. m₁: m₂ C. m₂: m₁ D. m₁

		² : m₂²
8	A body of mass 2 kg is thrown up vertically with K.E of 490 joules If the acceleration due to gravity is 9.8 m/s^2 the height at which the K.E of the body becomes half its original value is give by:	A. 50 m B. 12.5 m C. 25 m D. 10 m