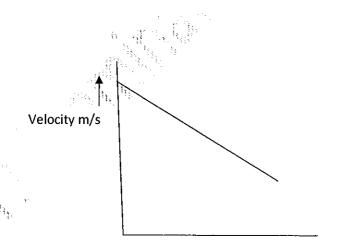
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -1 EXAMINATIONS-2022

M.Sc. (BT)-I Semester (BT)

COURSE CODE (CREDITS): 18MS1PH11 (2) MAX. MARKS: 15 COURSE NAME: Basics of Physics and Chemistry COURSE INSTRUCTORS: Dr. Poonam Sharma/Prof. Sunil Khah MAX. TIME; 1 Hour Note: All questions are compulsory. Marks are indicated against each question in square brackets. Q1(a). What are the criteria for the spontaneous nature of chemical reaction? Give examples. 2 (b). How principles of bioenergetics are useful in sustaining life? 2 (c). Explain energy coupling with the help of an example. 2 (d). Cp is greater than Cv. Why? 2 Q2(a). Using the concept of internal energy, explain isothermal and adiabatic processes in thermodynamics 2 Write definitions, dimensional formula and SI units of Work, Power. (b). 2

3



Time sec

Derive all three Kinematic Relations from the following graph

(c).