Average speed
for whole distance $= \dfrac{\text{Total distance travelled}}{\text{Total time taken}}$

$= \dfrac{2250 + 2000 + 2250}{10.833 \times 60}$

$= 11.538 \, m/s$

$= \dfrac{11.538}{1000} \times 3600 = 41.53 \, kmph$

Problem (1):

Block 2 rest on block 1 and is attached by a horizontal rope AB to the wall as shown in fig. What force AB to the P is necessary to cause motion of impend block (1) to impend? The coefficient of friction b/w the blocks is 1/4 and between the floor and block (1) is 1/3. Mass of blocks (1) and (2) are 14kg and 9kg resp.
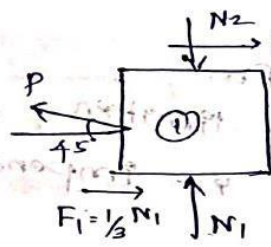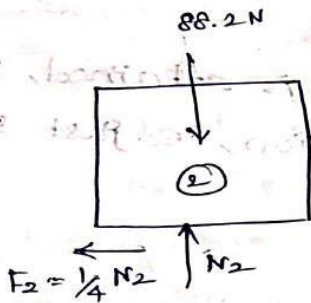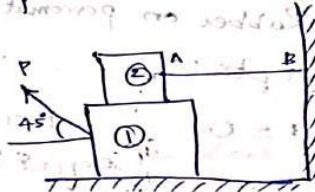
Solⁿ:

Weight of block (1) $W_1 = 14 \times 9.81$
$$= 137.2 N$$

Weight of block (2) $W_2 = 9 \times 9.81$
$$= 88.2 N$$

$M_1 = \frac{1}{3}$ $M_2 = \frac{1}{4}$

$T \rightarrow$ Tension in cable AB

Block (1) moves towards left
Block (2)   "   "   right.