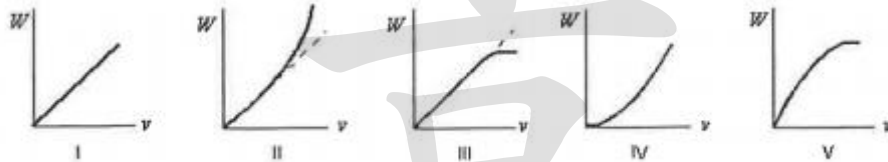


臺灣綜合大學系統 109 學年度學士班轉學生聯合招生考試試題

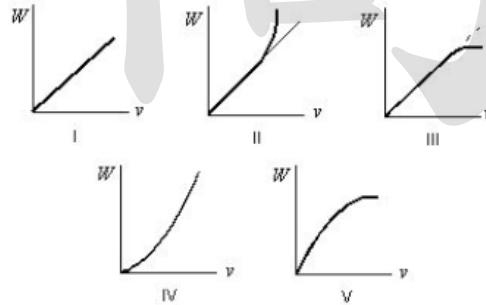
科目名稱	普通物理 A	類組代碼	共同考科
		科目碼	E0014

2. A particle is initially at rest on a horizontal frictionless table. A constant horizontal force \vec{F} is applied. Which graph shows the correct plot of work W as a function of the particle speed v ? (A)I (B)II (C)III (D)IV (E)V.



同物理作業練習題，命中率 100%

5. A crate is initially at rest on a horizontal frictionless table. A constant horizontal force F is applied. Which of the following five graphs is a correct plot of work W as a function of crate speed v ?



- (A) I (B) II (C) III (D) IV (E) V

6. A thin-walled hollow tube rolls without sliding along the floor. The ratio of its translational kinetic energy to its rotational kinetic energy (about an axis through its center of mass) is: (A) 1 (B) 2 (C) 3 (D) $1/2$ (E) $1/3$.

同物理作業練習題，命中率 100%

2. A thin-walled hollow tube rolls without sliding along the floor. The ratio of its translational kinetic energy to its rotational kinetic energy (about an axis through its center of mass) is:

- (A) 1 (B) 2 (C) 3 (D) $1/2$ (E) $1/3$

7. The coefficient of static friction between a certain cylinder and a horizontal floor is 0.40. If the rotational inertia of the cylinder about its symmetry axis is given by $I = (1/2)MR^2$, then the maximum acceleration the cylinder can have without sliding is: (A) $0.2g$ (B) $0.4g$ (C) $0.8g$ (D) g (E) $1.2g$.

同物理作業練習題，命中率 100%

7. The coefficient of static friction between a certain cylinder and a horizontal floor is 0.40. If the rotational inertia of the cylinder about its symmetry axis is given by $I = (1/2)MR^2$, then the maximum acceleration the cylinder can have without sliding is:
(A) 0.1 g (B) 0.2 g (C) 0.4 g (D) 0.8 g (E) 1.0 g
-

12. A long, nonconducting cylinder (radius = 6.0 mm) has a nonuniform volume charge density given by αr^2 , where $\alpha = 6.2 \text{ mC/m}^5$ and r is the distance from the axis of the cylinder. What is the magnitude of the electric field at a point 2.0 mm from the axis? (A) 1.4 N/C (B) 2.8 N/C (C) 5.0 N/C (D) 3.6 N/C (E) 4.5 N/C

同物理作業練習題，命中率 100%

5. A long nonconducting cylinder (radius = 6.0 mm) has a nonuniform volume charge density given by αr^2 , where $\alpha = 6.2 \text{ mC/m}^5$ and r is the distance from the axis of the cylinder. What is the magnitude of the electric field at a point 2.0 mm from the axis?
(A) 1.4 N/C (B) 1.6 N/C (C) 1.8 N/C (D) 2.0 N/C (E) 5.4 N/C

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