

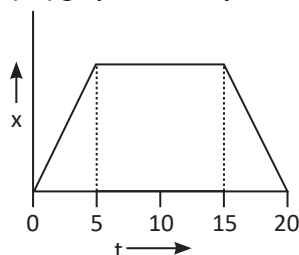
**CLASS 11th SAMPLE QUESTIONS**

The Actual Question Paper Contains 40 Questions. The Duration of the Test Paper is 50 Minutes.

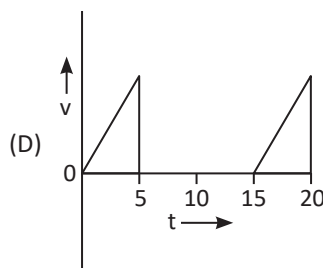
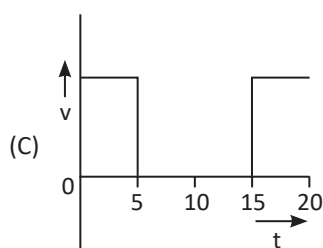
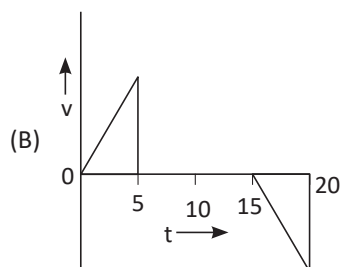
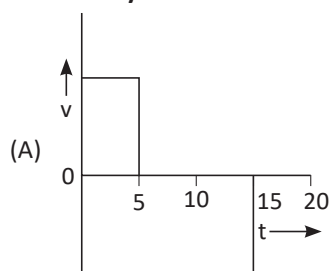
1. A body is thrown vertically up with a velocity u . It passes a point at a height h above the ground at time t_1 while going up and at time t_2 while falling down. Then the relation between u , t_1 and t_2 is:

(A) $t_1 + t_2 = \frac{2u}{g}$ (B) $t_2 - t_1 = \frac{2u}{g}$
 (C) $t_1 + t_2 = \frac{u}{g}$ (D) $t_2 - t_1 = \frac{u}{g}$

2. The figure given below shows the displacement-time ($x-t$) graph of a body moving in a straight line.



On the basis of above graph, select which one of the following is the velocity-time ($v-t$) graph of the motion of the body?



3. The escape velocity of a body on the earth's surface is v_e . A body is thrown with a speed $3v_e$. Assuming that the sun and planets do not influence the motion of the body, its speed at infinity would be:

(A) zero (B) v_e
 (C) $\sqrt{2}v_e$ (D) $2\sqrt{2}v_e$

4. Calculate number of sigma (σ) and pi (π) bonds in the following compound.

1, 3, 5, 7 Octatetraene

(A) σ bonds : 33, π bonds : 2
 (B) σ bonds : 17, π bonds : 4
 (C) σ bonds : 4, π bonds : 17
 (D) σ bonds : 33, π bonds : 2

5. What would be the IUPAC name and symbol for the element with atomic number 120?

(A) Symbol: Ubn, Name: unbinitium
 (B) Symbol: Ubt, Name: unbinitrium
 (C) Symbol: Ubt, Name: unbinitium
 (D) Symbol: Ubn, Name: unbinitrium

6. Photoelectric effect supports quantum nature of light because:

- (A) there is a minimum frequency of light below which no photoelectron is emitted.
 (B) the maximum kinetic energy of photoelectrons depends on the intensity of the light.
 (C) even when the metal surface is faintly illuminated, the photoelectrons are emitted
 (D) Both A and C

7. The equation $3^{\sin 2x + 2\cos^2 x} + 3^{1 - \sin 2x + 2\sin^2 x} = 28$ is satisfied for the value(s) of x given by _____.

- (A) $\tan x = 2$
 (B) $\cos x = 0, \tan x = -1$
 (C) $\cos x = 1, \tan x = 1$
 (D) $\tan x = -2$

8. Find the square root of i .

- (A) $\pm \frac{\sqrt{2}}{2} i$ (B) $\pm \frac{\sqrt{2}}{2} (1-i)$
 (C) $\pm \frac{\sqrt{2}}{2} (1+i)$ (D) $\pm \sqrt{2} (1+i)$

9. The related families are placed together in the same:

- (A) phylum (B) order
 (C) genera (D) class

10. The phloem formed from vascular cambium is known as:

- (A) primary phloem
 (B) protophloem
 (C) secondary phloem
 (D) metaphloem



ANSWERS

1. (A) 2. (A) 3. (D) 4. (B) 5. (A) 6. (D) 7. (B) 8. (C) 9. (B) 10. (C)