

NEW STANDARD ACADEMY

Marks: 80

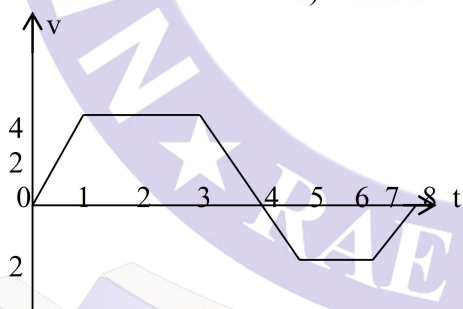
Date : 06-05-24

CLASS : 9TH

Time: 90 min.

PHYSICS

- If the speed of car is increased to two times, the breaking force to stop the car over the same distance will be:
a) One fourth c) half
b) Four times d) twice
- A moving body is covering the distance directly proportional to the square of the time. The acceleration of the body is:
a) Increasing c) Zero
b) Decreasing d) Constant
- Distance travelled by a particle in a given interval of time is always
a) Zero c) Positive
b) -ve and +ve d) Negative
- Displacement is a
a) Vector quantity c) both of them
b) Scalar quantity d) none of these
- The v-t graph of a linear motion is shown in adjoining figure. The distance from origin after 8sec. is-
a) 18 meters c) 16 meters
b) 8 meters d) 6 meters



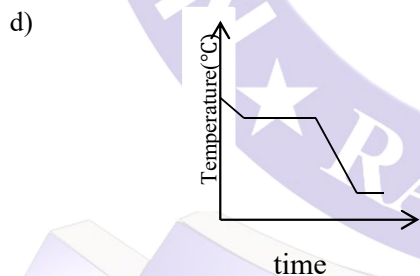
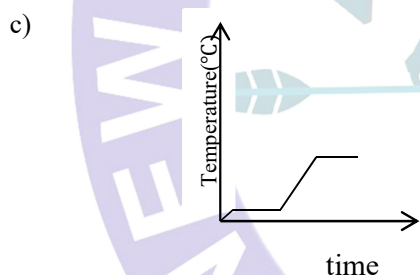
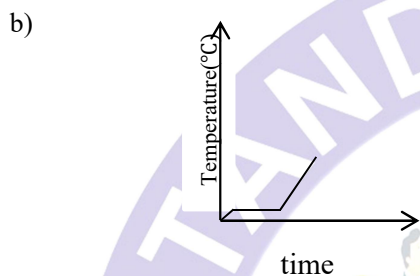
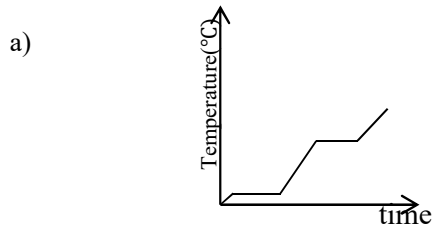
- A motor car covers 1/3 part of total distance with $V_1 = 10$ km/hr, second 1/3 part with $V_2 = 20$ km/hr and rest 1/3 part with $V_3 = 60$ km/hr. What is the average speed the car-
a) 18 km/hr c) 6 km/hr
b) 45 km/hr d) 22.5 km/hr
- A car covers a distance of 2 km. in 2.5 min. if it covers half of distance with speed

40 km/hr the rest distance it will cover with speed-

- a) 56 km/hr c) 50 km/hr
b) 60 km/hr d) 48 km/hr
8. A cyclist moving on a circular track of radius 40 m completes half a revolution in 40 sec. Its average velocity is-
a) Zero c) 2 m/sec.
b) 5 m/sec. d) 3.5 m/sec.
9. A bus accelerates uniformly from rest and acquires a speed of 36 km/hour in 10 seconds. The acceleration is
a) 1000 m/sec^2 c) 1 m/sec^2
b) 100 m/sec^2 d) 10 m/sec^2
10. Acceleration of a particle changes when :
a) Direction of velocity changes
b) Magnitude of velocity changes
c) Both of above
d) Speed changes

CHEMISTRY

- The process of evaporation is employed to separate a substance from its mixture if:
a) Substance is soluble in water
b) Substance is soluble in water but does not decompose on heating
c) Substance is soluble in water but can decompose on heating
d) Substance is soluble in water but sublimates on heating
- In the determination of the melting point of ice, the ice is contaminated with some non-volatile impurities like common salt. The melting point of ice will.
a) Increase c) decrease
b) Not change d) may increase or decrease
- Ice at -10°C is heated slowly until water formed start boiling. What kind of temperature-time graph will explain the correctly?



4. The fifth state of matter is formed by:
- Condensation of water vapours
 - Evaporation of liquids
 - Sublimation of substance
 - Cooling of gas at super low temperature
5. The temperature at which Celsius and Fahrenheit scales shows the same reading is
- $40^{\circ}K$
 - $-40^{\circ}C$
 - $100^{\circ}F$
 - $-100^{\circ}C$
6. The more effective in cooling is
- Water at $0^{\circ}C$
 - Ice at $0^{\circ}C$
 - Water at $100^{\circ}C$
 - gas at $0^{\circ}C$

7. The following which has definite shape and volume is :
- Water
 - Oxygen
 - Ice
 - Steam
8. The following that sublimates on heating is:
- Ice
 - Water
 - Dry ice
 - water vapours
9. By which property are gases and liquids different from solid?
- Volume
 - Conductivity
 - Mass
 - Fluidity
10. The boiling point of a gas is $-80^{\circ}C$. This temperature is equivalent to:
- $-193K$
 - $353K$
 - $193K$
 - $-353K$

BIOLOGY

1. Azolla is used as a bio fertilizer as it has
- Humus
 - Mycorrhiza
 - rhizobium
 - cyanobacteria
2. Green manure is
- Maize
 - Sorghum
 - Rice
 - Sesbania
3. What is full form of N.P.K?
- Nitrogen phosphorus and calcium
 - Nitric acid ,phosphorus and calcium
 - Nitrogen , phashorus and potassium
 - Nitric acid ,Phosphorus and potassium
4. Composted manure is formed from-
- Farm and household refuse
 - Animal refuse and rotten vegetables
 - Organic wastes from where biogas extraction takeplace
 - Farmyard manure and green manure
5. Which one of the following nutrients is not available in fertilizers?
- N
 - Fe
 - P
 - K
6. What is the process of growing two or more crops in a definite pattern?
- Crop rotation
 - Inter cropping
 - Mixed cropping
 - Organic cropping
7. In which method water is sprayed in the air simulating rain fall?
- Drip irrigation
 - Sprinkler Irrigation
 - Left Irrigation
 - Flow Irrigation

8. Which of the following type of Irrigation system is practised on small scale in india?
 a) Lift Irrigation
 b) Flood Irrigation
 c) Natural Sub- Irrigation
 d) Artificial sub- Irrigation
9. How many nutrient are essential for plant
 a) 11
 b) 13
 c) 12
 d) 16
10. Micronutrient are-
 a) Ca
 b) P
 c) Mg
 d) S

8. If $y=3-\sqrt{8}$, then $\left(y-\frac{1}{y}\right)^2 =$ _____
 a) 9
 b) 4
 c) 81
 d) 32
9. If $x=\frac{1}{\sqrt{3}+2}$, then $\left(x+\frac{1}{x}\right)^2$
 a) 16
 b) 12
 c) 3
 d) 6
10. If $\frac{3^{5x} \times (81)^2 \times 6561}{3^{2x}} = 3^7$, then $x =$ _____
 a) 3
 b) $\frac{1}{3}$
 c) -3
 d) $-\frac{1}{3}$

MATHS

1. If $2^{-3} \times \frac{1}{2^m} = \frac{1}{4}$, then $\frac{1}{14} \left[(4^m)^{1/2} + \left(\frac{1}{5^m}\right)^{-1} \right] =$
 a) $\frac{1}{2}$
 b) 4
 c) 2
 d) None of these
2. The surds $\sqrt{2}$, $\sqrt[3]{3}$ and $\sqrt[5]{5}$ in their descending
 a) $\sqrt[3]{3}$, $\sqrt[5]{5}$, $\sqrt{2}$
 b) $\sqrt{2}$, $\sqrt[3]{3}$, $\sqrt[5]{5}$
 c) $\sqrt{2}$, $\sqrt[5]{5}$, $\sqrt[3]{3}$
 d) $\sqrt[3]{3}$, $\sqrt{2}$, $\sqrt[5]{5}$
3. $\left[\frac{(32)^{0.2} + 81^{0.25}}{(256)^{0.5} - (121)^{0.5}} \right] =$ _____
 a) 2
 b) 1
 c) 5
 d) 11
4. If $\frac{5-\sqrt{3}}{2+\sqrt{3}} = x + y\sqrt{3}$, then (x, y) is
 a) (13, -7)
 b) (-13, -7)
 c) (-13, 7)
 d) (13, 7)
5. $\left[\left\{ \left(\frac{1}{x^{a^2-b^2}} \right)^{a-b} \right\}^{a+b} \right]^{\frac{1}{(a+b)^2}} =$ _____
 a) x^2
 b) 7^3
 c) $\frac{1}{x}$
 d) $\frac{1}{x^2}$
6. $\left[\left\{ \left(\frac{1}{7^2} \right)^{-2} \right\}^{-1/3} \right]^{1/4} = 7^m$, then $m =$ _____
 a) $-\frac{1}{3}$
 b) -3
 c) $\frac{1}{4}$
 d) 2
7. Simplify
 $\frac{1}{\sqrt{19-\sqrt{360}}} - \frac{1}{\sqrt{21-\sqrt{440}}} + \frac{2}{\sqrt{20+\sqrt{396}}} =$
 a) 1
 b) 0
 c) 2
 d) none of these