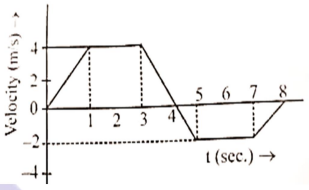
NEW STANDARD ACADEMY

Marks: 80

Date : 21-05-24 **CLASS : 9TH** **Time: 90 min.**

PHYSICS

1. A cyclist moving on a circular track of radius 40m completes half a revolution in 40 sec. Its average velocity is-
   a) Zero b) 5m/sec
   c) 2 m/sec d) 3.5 m/sec
2. Acceleration of a particle changes when :
   a) Direction of velocity changes
   b) Magnitude of velocity changes
   c) Both of above
   d) Speed changes
3. A bus moving on a crowded road is in
   a) Uniform quantity
   b) Non Uniform quantity
   c) Both of them
   d) none of these
4. The v-t graph of a linear motion is shown in adjoining figure the distance from origin after 8 sec.is-
   a) 18 meters
   b) 16 meters
   c) 8 meters
   d) 6 meters



5. A car covers a distance of 2 km. in 2.5 min. if it covers half of the distance with speed 40 km/hr then rest distance it will cover with speed-
   a) 56 km/hr b) 60 km/hr
   c) 50 km/hr d) 48 km/hr
6. Ratio of displacement to distance is
   a) Always< 1 b) Always = 1
   c) Always > 1 d) = or < 1
7. 1 km/h^2 is equal to
   a) $\frac{1000m}{3600\times3600\ s^2}$ b) $\frac{1}{12960}\ m/s^2$
   c) *both A&B are equal* d) none of these
8. A cheetah can accelerate from rest at the rate of $4m/s^{-2}$ .What will be its final velocity in 10sec.
   a) 10m/s b) 20 m/s
   c) 30 m/s d) 40 m/s
9. An objects moves from rest to a velocity of 50 m/s over a distance of 0.25m. Then acceleration of object
   a) $4000m/s^2$ b) $5000\ m/s^2$
   c) $6000\ m/s^2$ c) $70\ m/s^2$
10. A train is travelling at a speed of 90 km/h Breaks are applied so as to $-0.5\ m/s^2$. Find how for the train will go before it is brought to rest
    a) 625m b) 1000m
    c) 225m d) 400m

CHEMISTRY

The question given below consist of Assertion and Reason. Use the following key to select the correct answer:

a) If both assertion and reason are correct and reason is correct explanation for assertion.

b) If both assertion and reason are correct but reason is not correct explanation for assertion.

c) IF assertion is correct but reason is incorrect.

d) If assertion is incorrect but reason is correct.

11. **Assertion:** Temperature below 0°C is possible on Celsius scale but on kelvin scale negative temperature is not possible.
    Reason: The kelvin scale is related to Celsius scale as K= 0 0°C+273.
12. **Assertion:** At zero kelvin temperature the volume occupied by a gas is negligible.
    Reason: Molecular motion ceases at 0 K.
13. **Assertion:** Solids can hardly be compressed by applying pressure.

Reason: Solids are extremely hard in nature.

14. **Assertion:** There is no further rise in temperature when a liquid starts boiling.
Reason: The heat energy supplied is used as latent heat of vapourisation.

15. **Assertion :** low boiling liquids have stronger intermolecular forces as compared with high boiling liquids
Reason: Low boling liquids are more volatile than high boiling liquids.

16. **Assertion (A):** Baking soda ($NaHCO_3$) is a compound.
Reason (R): Properties of $NaHCO_3$ are absolutely different from sodium carbon hydrogen and oxgen.
a) Both A and R are true and R is the correct explanation for A
b) Both A and R are true and R is not the correct explanation for A
c) A is true and R is false
d) A is false and R is true

17. **Assertion (A):** Carbonated drinks produce a hiss sound when opend. **Reason (R):** Carbonnted drinks are prepared by the diffusion of gas in water and when opend the gases come out of the pressurized bottles causing a hissing sound.
a) Both A and R are true and R is the correct explanation for A
b) Both A and R are true and R is not the correct explanation for A
c) A is true and R is false
d) A is false and R is true

18. **Assertion (A):** The temperature remains constant during change of state.
Reason (R): Heat is used to Overcome the forces of attraction.
a) Both A and R are true and R is the correct explanation for A
b) Both A and R are true and R is not the correct explanation for A
c) A is true and R is false
d) A is false and R is true

19.

Column-I	**Column-II**
1) Dry ice	a) Domestic gas
2) LPG	b) Solid carbon di oxide
3) Marsh Gas	c) Methane
4) Super cooled liquid	d) Water

a) 1)-c,2)-b,3)-d 4)- a
b) 1)-d, 2)-c, 3)- b,4-a
c) 1)-b, 2-a ,3)-c,4)-d
d) 1)-b, 2)-c, 3)-d,4)-a

20.

Column-I	**Column-II**
1) Diffusion	a) Sublime
2) Naphthalene	b) the free mixing of molecules
3) Evaporation	c) Independent
4) Intensive	d) Liquid in to vapours

a) 1-c,2-b,3-d,4-a
b) 1-b,2-a,3-d,4-c
c) 1-b,2-a,3-c,4-d
d) 1-b,2-c,3-d,4-a

BIOLOGY

21. Leghorn is
a) exotic Breed b) Indigenous breed
c) Both a & b d) None of these.

22. Cattle feed includes
a) Roughage b) Concentrates
c) Both A and Bd) None of these

23. Which is cross breed of poultry
a) Black Minorcab) Plymouth
c) Assel d) HH-260 and IBL-80

24. Which is indigenous breeds of poultry-
a) Aseel b) white leghorn
c) Rhode island Red d) Black Minorca

25. Which is viral disease of poultry
a) Fowl Pox b) Cholera
c) Diarrhoea d) All of these

26. Which is cross breed of cow
a) Jersey b) Karan Swiss
c) Brown Swiss b) All of these

27. Name the sugar present in milk
a) Casein b) Lactose
c) Glucose d) Sucrose

28. Render pest is caused by
a) Bacteria b) Virus

c) Fungi d) None of these

29. Name the protein present in milk
    a) Casein b) Lactose
    c) Glucose d) Sucrose
30. Which is fiber rich—
    a) Roughage b) concentrate
    c) Both a and b d) none of these

MATHS

31. Which one of the following as a polynomial?
    a) $\frac{x^2}{2}-\frac{2}{x^2}$
    b) $\sqrt{2x}-1$
    c) $x^2+\frac{3x^{\frac{3}{2}}}{\sqrt{x}}$
    d) $\frac{x-1}{x+1}$
32. $\sqrt{2}$ is a polynomial of degree
    a) 2 b) 0
    c) 1 d) $\frac{1}{2}$
33. If $p(x)=(3x^2-1)(2x^3+1)$,then the leading coefficient of the polynomial(x) is
    a) 3 b) 2
    c) 5 d) 7
34. If p(x) =x+3,then p(x)+p(-x) is equal to
    a) 3 b) 2x
    c) 0 d) 6
35. If the remainder on dividing the polynomial $2x^4-kx^2+5x-3k+3$ by x+2 is 4 then the value of k is
    a) -3 b) 3
    c) $\frac{25}{7}$ d) $-\frac{25}{7}$
36. x+1 is a factor of the polynomial
    a) x^3+x^2-x+1
    b) x^3+x^2+x+1
    c) $x^4+x^3+x^2+1$
    d) $x^4+3x^3+3x^2+x+1$
37. The roots of the polynomial equation $3x^3-12x=0$ are
    a) 3,2,-2
    b) 3,0,4
    c) 0,2,-2
    d) 3,0,2,-2
38. If $f(x)=5x^2-4x+5$, *find* $f(1)+f(-1)+f(0)$.*is*
    a) 25 b) 35
    c) 45 d) 75
39. Use Remainder theorem to find the remainder when f(x) is divided by g(x) in
    $F(x)=x^2-5x+7,\ g(x)=x+3$
    a) 31 b) 41
    c) 51 d) 11
40. For what value of m is
    x^3-2mx^2+16 divisible by x+2?
    a)2 *b) 1*
    c) 3 *d) 4*