

X DAILY EXAM GENERAL SCIENCE - 1 KEY (10-4-2020)

1. P-a, Q-b
2. A to B
3. temperature
4. a, b, c
5. a
6. a
7. Humidity
8. a
9. P-a, Q-b

10. $k = c + 273$
 $= 27 + 273$
 $= 300k$

11. (A) $\rightarrow Na_2ZnO_2$ (Sodium zincate)
(B) $\rightarrow H_2$ (Hydrogen)
12. i) $\rightarrow r$, ii) $\rightarrow q$
13. H_2, Cl_2
14. b
15. 10
16. a
17. 16
explanation
(for N shell, $n=4$ number of orbitals = $n^2=4^2=16$)
18. b
19. $4s^1 3d^{10}$
20. d
21. When two or more bodies at different temperatures are mixed then net heat lost by hot bodies is equal to net heat gained by cold bodies until they attain common temperature.

$$\begin{aligned} 22. \quad T &= \frac{M_1 S_1 T_1 + M_2 S_2 T_2}{M_1 S_1 + M_2 S_2} \\ &= \frac{200 \times 1 \times 30 + 300 \times 1 \times 50}{200 + 300} \\ &= 42^\circ C \end{aligned}$$

$$23. \quad 2g \text{ ice at } 0^\circ C \xrightarrow{Q_1} 2g \text{ water at } 0^\circ C \xrightarrow{Q_2} 2g \text{ water at } 10^\circ C$$

$$\begin{aligned} Q &= Q_1 + Q_2 \\ &= ML + MS\Delta t \\ &= 2 \times 80 + 2 \times 1 \times 10 \end{aligned}$$

$$\text{Total heat absorbed} = 180 \text{ cal}$$

24. i) Linear kinetic energy
 ii) Potential energy
 iii) Rotational kinetic energy
 iv) Vibrational energy

25. **Evaporation**

- 1) It is conversion of liquid to gas at any temperature below boiling point.
 2) It is a surface phenomenon

Boiling

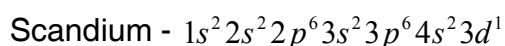
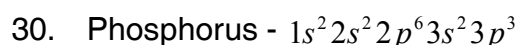
- 1) It is conversion of liquid to gas at a constant temperature.
 2) It takes place throughout the liquid.

26. **Melting** : It is the process of conversion of solid into liquid at constant temperature.

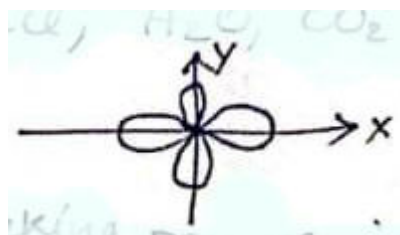
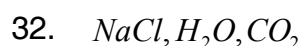
27. **Specific heat** : It is the amount of heat required to raise the temperature of unit mass of a substance by one unit.

28. $n = 3, l = 0, m = 0$

29. No two electrons of the same atom can have all four quantum numbers the same.



31. The space around the nucleus where the probability of finding the electron is maximum is called orbital.



33.

34. Baking powder is a mixture of baking soda and mild edible acid such as Tartaric acid.

35. Water of crystallization is the fixed number of water molecules present in one formula unit of a salt.

ENGLISH - 2 KEY

2, 1, 3, 5, 4

6. (a) Repent (b) opinion (c) finally (d) changed

7. (a) 6 (b) 5 (c) 1 (d) 2

(or)

6

5

1

2

8. (a) completely (b) join (c) declared (d) suspension

9. (a) ee (b) io

10. (a) ssion (b) or

11. (a) barriers (b) perturbed

12. (a) irritate and bother

(b) verb

13. **word** **equivalent**

1. saint

1. sage

2. myriad

2. many

3. synthesis

3. combine

4. dialect

4. local language

14. Look out : Lookout, he's got a gun.

Leaps and bounds : The film industry is expanding in leaps and bounds.

Sinedle : The meeting adjourned sine die.

at length : We can defend ourselves at length.

(Any relevant answer according to the question)

15. f, a, e, b, c