

## JEE Main 2024 Daily Practice Questions

### Physics:

**Question 1.** At depth  $d$  from surface of earth acceleration due to gravity is same as its value at height  $d$  above the surface of earth. If earth is a sphere of radius 6400 km; then value of  $d$  is equal to

1. 2975 km
2. 3955 km
3. 2525 km
4. 4915 km

**Question 2.** Consider the two statements

**Assertion:** The beam of electrons show wave nature and exhibits interference and diffraction

**Reason:** Davisson-Germer experiment verified the wave nature of electrons

1. Both are correct. Reason correctly explains assertion
2. Both are incorrect
3. Assertion is correct but Reason is Incorrect
4. Both are correct. Reasons does not explain assertion

**Question 3.** A conductor of length  $l$  and cross-sectional area  $A$  has drift velocity  $V_d$  when used across a potential difference  $V$ . When another conductor of same material and length  $l$  but double cross-sectional than first is used across same potential difference than drift velocity is equal to

1.  $V_d/2$
2.  $V_d$
3.  $2V_d$
4.  $4V_d$

**Chemistry:**

**Question 1.**  $\text{XeF}_4$ ,  $\text{SF}_4$ , and  $\text{BrCl}_3$  show hybridizations respectively

1.  $\text{sp}^3$ ,  $\text{sp}^3$ ,  $\text{sp}^3$
2.  $\text{dsp}^2$ ,  $\text{sp}^3$ ,  $\text{sp}^3$
3.  $\text{sp}^3\text{d}^2$ ,  $\text{sp}^3\text{d}$ ,  $\text{sp}^3\text{d}$
4.  $\text{D}2\text{sp}^2$ ,  $\text{sp}^3\text{d}$ ,  $\text{sp}^3\text{d}$

**Question 2.** Choose the correct information regarding products obtained on electrolysis of Brine Solutions

1.  $\text{Cl}_2$
2.  $\text{O}_2$  at cathode
3.  $\text{H}_2$  at cathode
4.  $\text{OH}^-$  at anode

**Question 3.** Which of the following contains the compound which has the highest sweetening value?

1. Aspartame
2. Saccharin
3. Sucralose
4. Alitame

**Mathematics:**

**Question 1.** Let the Relation  $R$ ,  $(a,b), R(c,d)$  be such that  $ab(d-c) = cd(a-b)$ , then  $R$  is

1. Reflexive only
2. Symmetric
3. Transitive but not symmetric
4. Reflexive and symmetric but not transitive

**Question 2.** The product and sum of first four terms of GP is 1296 and 126 respectively, then sum of the possible values of common difference is \_\_\_\_\_

1. 14
2.  $10/3$
3.  $7/2$
4. 3