ADDITIONAL QUESTIONS IN ELECTROCHEMISTRY(CET)

1. QUANTITY OF ELECTRICITY WHICH LIBERATES 8 GRAMS OF OXYGEN FROM ACIDIFIED WATER IS

a. ONE VOLT

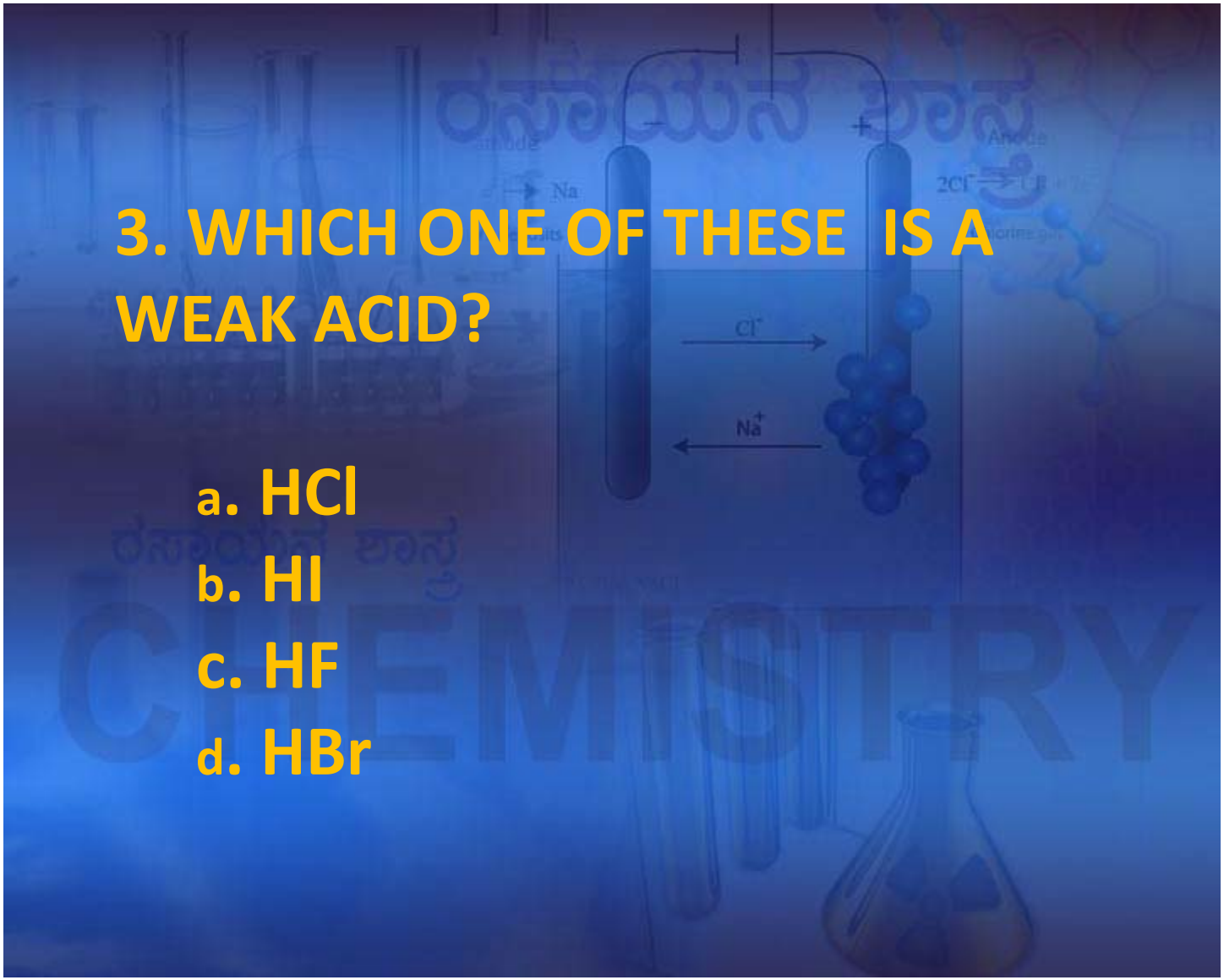
b. ONE AMPERE

c.ONE COULMB

d.ONE FARADAY

2. **WHICH OF THESE IS NOT A CONDUCTOR OF ELECTRICITY?**

a. **Cu**
b. **FUSED NaCl**
c. **BRINE SOLUTION**
d. **SOLID NaCl**


3. WHICH ONE OF THESE IS A WEAK ACID?
a. HCl
b. HI
c. HF
d. HBr

4. THE SPECIFIC CONDUCTANCE OF A O.1 M SOLUTION OF AN ELECTROLYTE IS 6.3 Ohm/m. THE MOLAR CONDUCTANCE IN $Sm^2.mol^{-1}$ IS

a. 630x1O-4
b. 315x1O-4
c. 100x1O-4
d. 6300x1O-4

5. AMMONIA GAS DISSOLVES IN WATER TO FORM NH4OH. IN THIS REACTION WATER ACTS AS

a. A BASE
b. AN ACID
c. A CONJUGATE BASE
d. NON-POLAR SOLVENT

6. THE DEGREE OF IONISATION OF AN ELECTROLYTE DEPENDS ON

a. THE SIZE OF THE SOLUTE PARTICLES
b. THE NATURE OF SOLUTE MOLECULES
c. THE SIZE OF SOLVENT MOLECULES
d. THE AMOUNT OF ELECTRICITY PASSED

7. AN IONISING SOLVENT HAS

a. A LOW VALUE OF DIELECTRIC CONSTNAT AND POLARITY.

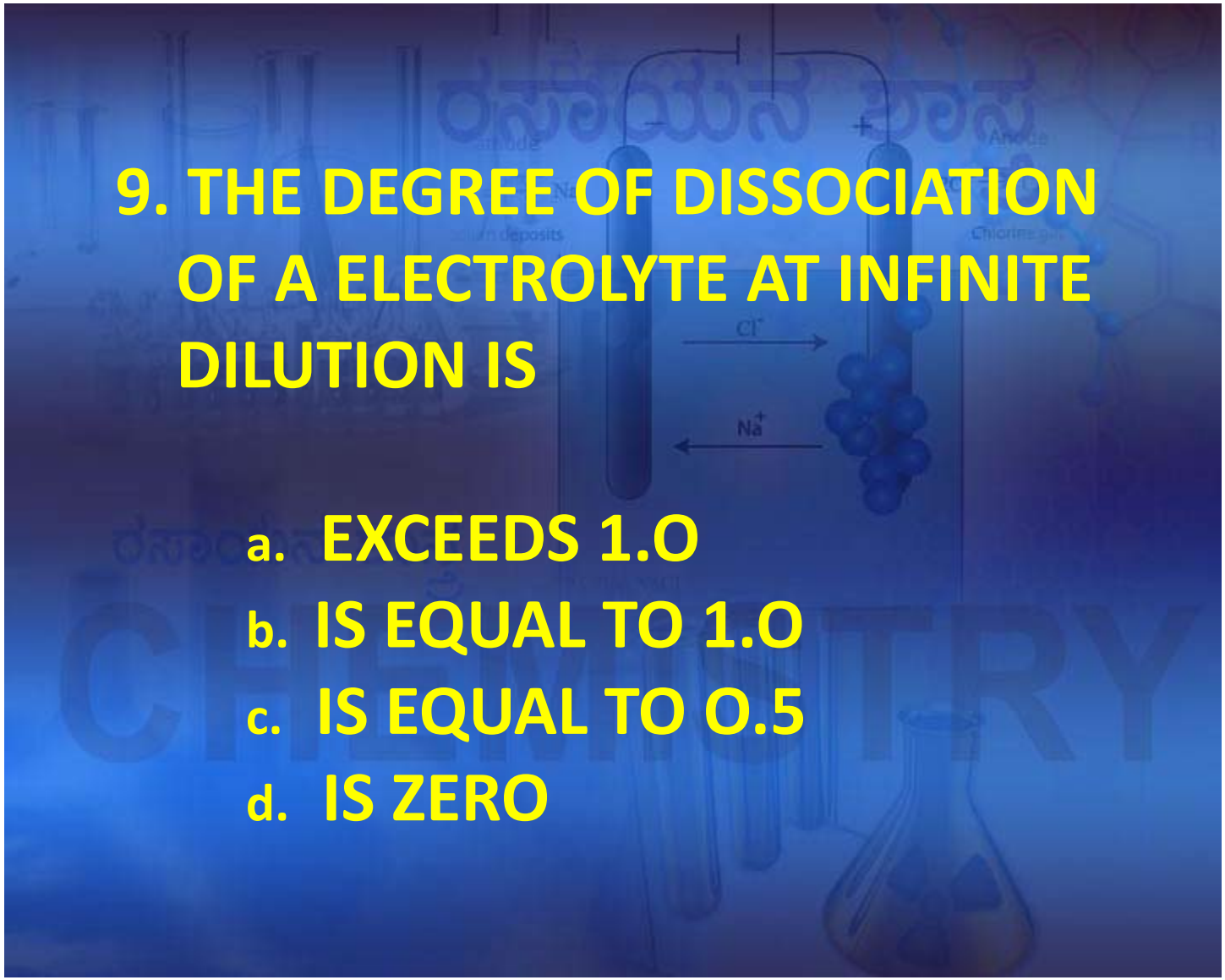
b. A HIGH VALUE OF DIELECTRIC CONSTANT AND POLARITY

c. A HIGH OF DIELECTRIC CONSTNAT AND LOW VALUE OF POLARITY

d. A LOW VALUE OF DIELECTRIC CONSTANT AND HIGH VALUE OF POLARITY

8. ELECTROCHEMICAL EQUIVALENT OF COPPER IS O.OOO3296 g COULOMB-1. THE AMOUNT OF COPPER DEPOSITED BY A CURRENT OF O.5 ampere FLOWING FOR 5hrs 33min 20sec IS

a. 3.296 g
b. 6.592 g
c. 0.3296 g
d. 1.648 g



9. THE DEGREE OF DISSOCIATION OF A ELECTROLYTE AT INFINITE DILUTION IS

a. EXCEEDS 1.O
b. IS EQUAL TO 1.O
c. IS EQUAL TO O.5
d. IS ZERO

10. THE AMOUNT OF SILVER DEPOSITED ON PASSING 2.O FARADAY OF ELECTRICITY THROUGH AN AQUEOUS SOLUTION OF $AgNO_3$ IS

a. 54.0g
b. 108.0g
c. 216.0g
d. 320.0g

11. WHICH OF THE FOLLOWING WILL FURNISH MAXIMUM NUMBER OF IONS PER LITRE OF THE SOLUTION?

a. O.1M NaCl
b. O.I M Na_2SO_4
c. O.I M HCN
d. O.I M HCl

12. IF THE SPECIFIC RESISTANCE OF A SOLUTION OF CONCENTRATION C g eq/litres is A ohm. Cm, THEN ITS EQUIVALENT CONDUCTANCE IN SI UNITS IS,

a. 100/AC
b. AC/1000
c. C/1000 A
d. 1/1000 AC

13. THE SPECIFIC CONDUCTANCE OF AN ELECTROLYTE

a. INCREASES WITH INCREASE IN TEMPERATURE
b. DECREASES ON DILUTION
c. DEPENDS ON THE NATURE OF THE ELECTROLYTE
d. ALL ARE CORRECT

14. WHICH OF THE FOLLOWING STATEMENTS IS TRUE?

a. IN AQUEOUS MEDIUM HF IS A STRONGER ACID THAN HCl
b. $HClO_4$ IS WEAKER ACID THAN $HClO_3$
c. HNO_3 IS A STRONGER ACID THAN HNO_2
d. H_3PO_3 IS A STRONGER ACID THAN H_2SO_3

15. A COMPOUND IS KNOWN AS AN ELECTROLYTE IF IT CAN CONDUCT ELECTRICITY IN

a. ONLY IN THE FUSED STATE

b. BOTH IN SOLUTION AND IN THE FUSED STATE

c. DISSOLVED STATE BUT IN FUSED STATE

d. ONLY IN SOLUTION STATE

16. WHICH ONE OF THESE WILL HAVE HIGHEST SPECIFIC CONDUCTANCE FOR O.1 N SOLUTION

a. CH_3COOH

b. NH_4OH

c. NaCl

d. Na_2SO_4

17. THE SPECIFIC CONDUCTANCE OF O.O1 M NaCl SOLUTION IS O.12 Sm^{-1}. THE EQUIVALENT CONDUCTANCE IS

a. $1.2x10^{-3}$ $Sm2eq^{-1}$
b. $1.2x10^{-3}$ $Sm2eq^{-1}$
c. $1.2x10^{-2}$ $Sm2eq^{-1}$
d. 120 Sm^2eq^{-1}

18. WHICH ONE OF THE FOLLOWING CAN BE CLASSIFIED AS BRONSTED BASE?

a. H_3O^+

b. NO_3^-

c. NH_4^+

d. CH_3COOH

19 . A CURRENT OF ELECTRICITY IS PASSED THROUGH SILVER VOLTAMETER CONNECTED TO A WATER VOLTAMETER. THE CATHODE OF THE SILVER VOLTAMETER WEIGHED 0.108 g MORE AT THE END OF ELECTROLYSIS. VOLUME OF OXYGEN EVOLVED AT S.T.P .

a. 11.2ml

b. 22.4 ml

c. 5.6ml

d. 56mL