CHEMISTRY PRACTICAL VIVA VOCE

Q1] DEFINE REDOX REACTION ?

- ✓ **A REACTION IN WHICH REDUCTION AND OXIDATION OCCURS SIMULTANEOUSLY IS KNOWN AS REDOX RTEACTION.**

Q2] DEFINE OXIDATION?

- ✓ **THE PROCESS IN WHICH A SPECIES UNDERGOES LOSS OF ELECTRONS IS KNOWN AS OXIDATIOBN.**

Q3] DEFINE REDUCTION?

- ✓ **THE PROCESS IN WHICH A SPECIES UNDERGOES GAIN OF ELECTRON IS KNOWN AS REDUCTION.**

Q4] DEFINE REDUCING AGENT/ REDUCTANT.

- ✓ **A SPECIES WHICH REDUCES THE OTHER SPECIES AND ITSELF GETS OXIDISE IS KNOWN AS REDUCING AGENT OR REDUCTANT.**

Q5] DEFINE OXIDISING AGENT OR OXIDANT.

- ✓ **A SPECIES WHICH OXIDISES THE OTHER SPECIES AND ITSELF GETS REDUCED IS KNOWN AS REDUCING AGENT OR REDUCTANT.**

Q6] WHAT IS AN IDICATION?

A SUBSTANCE WHEN ADDED DURING THE COURSE OF TITRATION WHICH BRINGS ABOUT A COLOR CHANGE AS AN INDICATION OF COMPLETION OF THE REACTION,

Q7] GIVE SOME EXAMPLES OF INDICATOR.

- ✓ **ERIOCHROME BLACK-T (EBT), PHENOLPHTHALEIN, METHYL ORANGE, METHYLENE BLUE, ETC.**

Q8] WHAT IS THE METAL STRIP MADE OF?

- ✓ **THE METAL STRIP IS M,ADE UP OF ALUMINIUM.**

Q9] WHAT IS STEEL AND WHAT IS ITS COMPOSITION?

- ✓ **STEEL IS AN ALLOY MADE UP OF IRON AND STEEL.**

Q10] WHAT IS AN ALLOY? GIVE ONE EXAMPLE OF IT.

- ✓ **AN ALLOY IS AN MIXTURE OF METALS, OR A METAL COMBINED WITH ONE OR MORE OTHER ELEMENT. EXAMPLE IS STEEL.**

Q11] IN REDOX TITRATION, WHAT IS PRESENT IN CONICAL FLASK?

- ✓ **10ml OF STEEL SOLUTION AND 10ml OF SULPHURIC ACID.**

Q12] IN REDOX TITRATION, WHAT IS PRESENT IN BURETTE?

- ✓ **KMNO4 SOLUTION (POTTASSIUM PERMANGANATE)**

Q13] WHAT IS THE COLOR OF KMNO4 SAOLUTION?

- ✓ **THE COLOR OF KMNO4 SOLUTION IS PURPLE.**

Q14] WHICH INDICATOR IS USED IN REDOX TITRATION?

- ✓ **NO EXTERNAL INDICATOR IS ADDED BECAUSE KMNO4 ITSELF ACTS AS A SELF INDICATOR.**

Q15] GIVE THE NAME OF OPEN CUP APPARATUS.

- ✓ **CLEAVLAND OPEN CUP**

Q16] GIVE THE NAME OF CLOSE CUP.

- ✓ **ABLE CLOSE CUP**

Q17} DEFINE FIRE POINT.

- ✓ **THE LOWEST TEMPERATURE AT WHICH OIL GIVES ENOUGH VAPOURS WHICH CATCHES FIRE & BURNS CONTINOUSLY FOR 5 SECONDS, WHEN FLAME IS APPLIED TO IT.**

Q18] DEFINE FLASH POINT.

- ✓ **THE LOWEST TEMPERATURE AT WHICH OIL GIVES ENOUGH VAPOURS WHICH GIVES MOMENTARY FLASH OF LIGHT, WHEN FLAME IS APPLIED TO IT.**

Q19] IN WHICH APPARATUS YOU CAN SEE BOTH FLASH AND FIRE POINTS?

- ✓ **CLEAVLAND OIPEN CUP APPARATUS.**

Q20] DEFINE VISCOSITY.

- ✓ **VISCOSITY IS A MEASURE OF FLUIDS RESISTANCE TO FLOW AT A GIVEN TEMPERATURE.**

Q21] WHAT IS THE RELATION BETWEEN RATE OF CORROSION AND TEMPERATURE?

- ✓ **THERE IS A LINEAR RELATION i.e. DIRECTLY PROPORTIONAL. IF TEMPERATURE INCREASES THEN THE RATE OF CORROSION INCREASES TOO.**

Q22] WHAT IS THE RELATION BETWEEN RATE OF CORROSION & PH?

- ✓ **THERE IS AN INVERSE RELATION i.e. INVERESELY PROPORTIONAL IF THE PH DECREASES THEN THE RATE OF CORROSION INCREASES.**

Q23] WHAT IS THE RELATION BETWEEN RATE OF CORROSION & ACIDIC PH?

- ✓ **THERE IS A LINEAR RELATION i.e. DIRECTLY PROPORTIONAL. IF ACIDIC NATURE OF A SOLUTION INCREASES THEN THE RATE OF CORROSION TOO.**

Q24] OUT OF ALL THE 4 SOLUTIONS, IN WHICH SOLUTION HIGHEST CORROSION TOOK PLACE? WHY?

- ✓ **HCL (HYDROCHLORIC ACID) BECAUSE OF ITS HIGHLY ACIDIC NATURE & LOW PH VALUE.**

Q25] DEFINE PH.

- ✓ **PH IS A MEASURE OF HOW ACIDIC/BASIC A SOLUTION IS.**

Q26] EXPLAIN THE PH SCALE.

- ✓ **THE RANGE GOES FROM 0 - 14, WITH 7 BEING NEUTRAL. PHS OF LESS THAN 7 INDICATE ACIDITY, WHEREAS A PH OF GREATER THAN 7 INDICATES A BASE.**

Q26] BY HOW MANY METHODS WE CAN DETERMINE PH & NAME THEM.

- ✓ **THERE ARE 4 METHODS BY WHICH PH CAN BE DTERAMINED. THEY ARE: 1]PH PAPER 2] PH METER 3]UNIVERSAL INDICATOR 4] LITMUS PAPER.**

Q27] WHAT IS THE END POINT IN REDOX TITRATION?

- ✓ **CLOURLESS TO PINK COLOR.**

Q28] WHAT IS REFERENCE ELECTRODE?

- ✓ **THE ELECRODE WHOSE POTENTIAL IS KNOWN AND IS USED TO FIND THE POTENTIAL OF OTHER ELECTRODE IS KNOWN AS REFERENCE ELECTRODE.**

Q29] WHAT IS THE COLOR OF CUSO4 (COPPER SULPHATE) SOLUTION?

- ✓ **BLUE**

Q29] WHAT IS THE COLOR OF ZNSO4 (ZINC SULPHATE) SOLUTION?

- ✓ **WHITE**

Q29] WHAT IS THE COLOR OF CU (COPPER) ELECTRODE?

- ✓ **REDDISH BROWN**

Q30] WHAT IS THE COLOR OF ZN (ZINC) ELECTRODE/

- ✓ **BLACKISH GREY**

Q31] WHICH COLOR WIRE IS CONNECTED CUSO4 SOLUTION OR CATHODE?

- ✓ **RED COLOURED WIRE**

Q32] WHICH COLOR WIRE IS CONNECTED TO ZNSO4 OR ANODE?

- ✓ **BLACK COLOURED WIRE.**

Q33] WHO IS ACTING AS AN ANODE IN DANIEL CELL?

- ✓ **ZINC ELECTRODE**

Q34] WHO IS ACTING AS CATHODE IN DANIEL C ELL?

- ✓ **COPPER ELECTRODE**

Q35] STATE FUNCTION OF SALT NRIDGE.

- ✓ **IT JOINS TWO HALF CELLS AND ALL & KEEPS THE SOLUTIONS IN TWO HALF CELLS ELECTRICALLY NEUTRAL.**

Q36] WHAT IS A SALT BRIDGE?

- ✓ **THE SOLUTIONS IN TWO BEAKERS ARE CONNECTED BY AN INVERTED U TUBE, WHICH IS CALLLED SALT BRIDGE,**

Q37] WHAT IS CATHODE?

- ✓ **IT IS A POSITIVELY CHARGED ELECTRODE, WHERE THE LOSS OF ELECTRONS TAKES PLACE.**

Q38] WHAT IS ANODE?

- ✓ **IT IS A NEGATIVELY CHARGED ELECTRODE, WHERE GAIN OF ELECTRONS TAKES PLACE.**

Q39] WHY DO WE USE DESSICATOR/

- ✓ **THE CLACIUM CARBONATE PRESENT AT THE BOTTOM OF THE DESSICATOR ABSORBS ALL THE MOISTURE.**

Q40] EXPLLAIN THE PROCEDURE OF THINNER EXPERIMENT?

Q41] WHAT HAPPENS WHEN THE CRUCIBLE CONTAINING PAINT IS PLACED IN OVEN?

- ✓ **THE THINNER PRESENT IN THE PAINT BEING VOLATILE IN NATURE EVAPORATES AS THE TEMPERATURE INCREASES.**