**SSC 1ndANNUAL EXAMINATION 2022**

**Rubrics CHEMISTRY SSC- II (LOCAL) Final: 30-09-2022**

| **Q.# / Part #** | **Criteria**  | **Level 1 (Marks)** | **Level 2(Marks)** | **Level 3 (Marks)** | **Level 4 (Marks)** | **Level 5 (Marks)** | **Level 6 (Marks)** |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $$2(i)$$ | Writing equilibrium constant expression (Kc) for given reactions.  | Writing three correct Kc expressions (3) | Writing two correct Kc expressions (2) | Writing any one correct Kc expressions (1) | Wrong answer (0) |  |  |  |
| $$2(ii)$$ | State three necessary conditions for equilibrium  | Writing three correct conditions for chemical equilibrium (3) | Writing two correct conditions for chemical equilibrium (2) | Writing one correct condition for chemical equilibrium (1) | Wrong answer (0) |  |  |  |
| $$2(iii)$$ | Writing any three chemical equations of halogenation of methane  | Writing three correct chemical equations (3) | Writing two correct chemical equations (2) | Writing one correct chemical equation (1) | Wrong answer (0) |  |  |  |
| $$2\left(iv\right)$$ | List three applications of PH scale in daily life. | Writing three correct applications (3) | Writing two correct applications (2) | Writing any one correct application (1) | Wrong answer (0) |  |  |  |
| $$2(v)$$ | Classification of the given organic compounds into straight, Branched and Homocyclic compounds. | Writing three correct Classifications (3) | Writing two correct classifications (2) | Writing any one correct classification (1) | Wrong answer (0) |  |  |  |
| $$2(vi)$$ | Importance of DNA and RNA  | Writing correct importance (3) |  Partially correct importance (2) | Any relevant information (1) | Wrong answer (0) |  |  |  |
| $$2(vii)$$ | Drawing condensed structural formula of the given three compounds  | Drawing three correct condensed structural formulae (3) | Drawing two correct condensed structural formulae (2) | Drawing one correct condensed structural formula (1) | Wrong answer (0) |  |  |  |
| $$2(viii)$$ | Number of carbon atoms in the given six petroleum fractions. | Writing six correct fractions.(3)  | Writing five correct fractions.(2.5) | Writing four correct fractions.(2) | Writing three correct fractions.(1.5) | Writing two correct fractions. (1) | Writing one correct fraction (0.5) | Wrong (0) |
| $2(ix$) | Conversion of given alkanes into alkyl radicals. | Writing three correct alkyl radicals (3) | Writing two correct alkyl radicals (2) | Writing one correct alkyl radicals (1) | Wrong answer (0) |  |  |  |
| $2(x$) | Differentiation between oil and fats. | Writing three correct differentiations (3) | Writing two correct differentiations (2) | Writing one correct differentiation. (1) | Wrong answer (0) |  |  |  |
| $$2(xi)$$ | Uses of the given Enzymes  | Writing correct use of each three given enzyme. (3) | Writing correct use of each two given enzyme. (2) | Writing correct use of each one given enzyme. (1) | Wrong answer (0) |  |  |  |
| $$2(xii)$$ | Justification of ” ice floats on water surface” | Writing correct justification (3) | Partially correct response (2) | Any relevant information(1) | Wrong answer (0) |  |  |  |
| 2(xiii) | Sources of the given three Air pollutants  | Writing correct sources of three pollutants (3) | Writing correct sources of two pollutants (2) | Writing correct source of one pollutants (1) | Wrong answer (0) |  |  |  |
| $$2(xiv)$$ | General Characteristics of organic compounds on the basis a) Homology b) solubility c) reaction rates.  | Writing three correct characteristics (3) | Writing two correct characteristics (2) | Writing one correct characteristics (1) | Wrong answer (0) |  |  |  |
| $$2(xv)$$ | Identification of two functional groups in the given molecule | Writing two correct functional groups (3) | Writing one correct functional group (1.5) | Wrong answer (0) |  |  |  |  |
| $$3 (a)$$ | Writing complete and balance equations1. Copper oxide reacts with dilute Sulphuric Acid
2. Zinc hydroxide reacts with Dil.Hydrochloric Acid
 | Writing correct and balanced equation (3) | Partially correct response (2) | Any relevant information’s (1) | Wrong information (0) |  |  |  |
| Writing correct and balanced equation (3) | Partially correct response (2) | Any relevant information’s (1) | Wrong information (0) |  |  |  |
| $3 (b)$  | State/define the Arrhenius concept of acids & bases with examples  | Correctly stating/defining the concept of acids (2) | Partially correct (1) | Relevant information (0.5) | Wrong answer (0) |  |  |  |
| Correctly stating/defining the concept of bases (2) | Partially correct (1) | Relevant information (0.5) | Wrong answer (0) |  |  |  |
| 4 (a) | Steps for the preparations of oxalic acid from Ethyne. | Writing correct reactions of each step (3) | Partially correct response (2) | Any relevant information (1) | Wrong (0) |  |  |  |
| Correct products names (1) | Partially correct (0.5) | Wrong (0) |  |  |  |  |
| 4 (b) | Description of urea with formula and uses  | Writing Correct explanation with formula (3) | Partially correct response (2) | Any relevant information (1) |  |  |  |  |
| Correct three uses (3) | Correct two uses (2) | Correct one use.(1) | Wrong answer (0) |  |  |  |
| 5 (a) | Differentiation between saturated and unsaturated Hydrocarbons  | Writing correct differentiation (6) | Partially correct response (4) | Any relevant information (2) | Wrong answer (0) |  |  |  |
| 5 (b) | Analysis of any four harmful effects of acid rain  | Writing correct four effects of Acid rain (4) | Writing correct three effects of Acid rain (3) | Writing correct two effects of Acid rain (2) | Writing correct one effect of Acid rain (1) | Wrong answer (0) |  |  |