**RUBRIC: SSC 1st ANNUAL EXAMINATION 2022**

**SUBJECT: BIOLOGY SSC-I (Local) Final 10-06-2022 Time 5:00PM**

| **Q.# /Part #** | **Criteria**  | **Level 1 (Marks)** | **Level 2(Marks)** | **Level 3 (Marks)** | **Level 4 (Marks)** | **Level 5 (Marks)** | **Level 6 (Marks)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| $$2(i)$$ | Definition of limiting factor | Correct definition (1) | Partially correct definition (0.5) | Wrong answer (0) |  |  |  |
| Light intensity as limiting factor  | Correct description i.e. effect of increase and decrease of light intensity (2) | Correct description of any one aspect (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| $$2(ii)$$ | Definition of Biophysics | Correct definition (1) | Partially correct response (0.5) | Wrong answer (0) |  |  |  |
| Definition of Biochemistry | Correct definition (1) | Partially correct response (0.5) | Wrong answer (0) |  |  |  |
| Definition of Biogeography | Correct definition (1) | Partially correct response (0.5) | Wrong answer (0) |  |  |  |
| $$2(iii)$$ | Observations of A.F.A King | Three correct observations (3) | Any two correct observations (2) | Any one correct observation (1) | Some relevant information (0.5) | Wrong answer (0) |  |
| $$2(iv)$$ | Description of Pericardial Fluid | Correct description of pericardial fluid (1.5) | Partially correct (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| Function | Correct description of the function (1.5) | Partially correct (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| $$2(v)$$ | Definition | Correct Definition (1) | Partially correct (0.5) | Wrong answer (0) |  |  |  |
| Sources | Any two Correct sources (1) | Any one correct source(0.5) | Wrong answer (0) |  |  |  |
| Functions | Correct function (1) | Partially correct function (0.5) | Wrong answer (0) |  |  |  |
| $$2(vi)$$ | Aims of classification | Any three correct aims (3) | Any two correct aims (2) | Any one correct aim (1) | Wrong answer (0) |  |  |
| $$2(vii)$$ | Labeled diagram of Mitochondrion | Correct diagram (1)  | Partially correct diagram (0.5) | Wrong answer (0) |  |  |  |
| Any four correct labeling (02) | Any three correct labeling (1.5) | Any two correct labeling (1) | Any one correct labeling (0.5) | Wrong answer (0) |  |
| $$2(viii)$$ | Differentiation of Prokaryotes and Eukaryotes | Any three correct differences (3) | Any two correct differences (2) | Any one correct difference (1) | Wrong answer (0) |  |  |
| $2(ix$) | Names of diseases caused by PEM | Any two correct names (1) | One correct name (0.5) | Wrong answer (0) |  |  |  |
| Description of diseases caused by PEM | Correct description of both diseases (2) | Correct description of any one disease (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| $2(x$) | Reduction of activation energy by enzymes | Complete description of the causes (3) | Partial description of the causes (2) | Some relevant information (1) | Wrong answer (0) |  |  |
| $$2(xi)$$ | Effect of substrate concentration | Correct description (2) | Partially correct description (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| Graph of substrate concentration | Correctly drawn graph with labeling (1) | Partially drawn/without labeling (0.5) | Wrong answer (0) |  |  |  |
| $$2(xii)$$ | Names of Macronutrients  | Any two correct names (1) | Any one correct name (0.5) | Wrong answer (0) |  |  |  |
| Role of macronutrients  | One correct role of each of the two (1) | Correct role of any one (0.5) | Wrong answer (0) |  |  |  |
| Deficiency symptoms  | One correct symptom of each of the two (1) | Correct symptom of any one (0.5) | Wrong answer (0) |  |  |  |
| 2(xiii) | Effects of absence of Pancreatic juice  | Correct description of effects of absence i.e. incomplete digestion of carbohydrates, fats and proteins (3) | Correct description of any two (2) | Correct description of any one (1) | Some relevant information (0.5) | Wrong answer (0) |  |
| $$2(xiv)$$ | Difference between Systole and Diastole  | Correct difference (1.5) | Partially correct (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| Difference between Tricuspid and Bicuspid  | Correct difference (1.5) | Partially correct (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| $$2(xv)$$ | Opening of stomata according to starch sugar hypothesis | Complete description (1.5) | Partial description (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| Closing of stomata according to starch sugar hypothesis | Complete description (1.5) | Partial description (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| $$3(a)$$ | Definition/Description of Translocation | Correct definition/description (1) | Partially correct (0.5) | Wrong answer (0) |  |  |  |
| Mechanism of translocation | Correct description of mechanism using the idea of source, sink and pressure flow/ mass flow hypothesis (3) | Partially correct description (2) | Any relevant information (1) | Wrong answer (0) |  |  |
| Diagram | Correct labeled diagram (1) | Partially correct diagram (0.5) | Wrong answer (0) |  |  |  |
| $3(b$) | Structure of Nucleus | Correct description of nuclear envelope, nucleoplasm, nucleolus and chromosomes (3) | Description of any three (2) | Description of any two (1.5) | Description of any one (1) | Any relevant information (0.5) | Wrong answer (0) |
| Function | Correct function (1) | Partially correct function (0.5) | Wrong answer (0) |  |  |  |
| Diagram | Correct labeled diagram (1) | Partially correct diagram (0.5) | Wrong answer (0) |  |  |  |
| $4$  | Definition of Karyokinesis  | Correct definition (1) | Incorrect definition (0) |  |  |  |  |
| Description of prophase  | Correct description of the prophase (2) | Partially correct description (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| Description of metaphase, anaphase and telophase | Correct description of all three (3) | Correct description of any two (2) | Correct description of any one (1) | Some relevant information (0.5) | Wrong answer (0) |  |
| Labeled diagrams  | Correct labeled diagrams of all four phases (4) | Correct labeled diagrams of any three phases (3) | Correct labeled diagrams of any two phases (2) | Correct labeled diagram of any one phase (1) | Some relevant information (0.5) | Wrong answer (0) |
| 5 (a) | Glycolysis  | Correct description/equation (2) | Partially Correct (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| Krebs cycle  | Correct description/equation (2) | Partially Correct (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| ETC | Correct description/equation (2) | Partially Correct (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| 5 (b) | Definition | Correct definition (1) | Partially correct (0.5) | Wrong answer (0) |  |  |  |
| Rules | Any two correct rules (2) | Any one correct rule (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |
| Importance  | Correct description/example (1) | Some relevant information (0.5) | Wrong answer (0) |  |  |  |