

**U.G. 5th Semester Examination - 2021****BOTANY****[HONOURS]****Course Code : BOTH-CC-P-12****[PRACTICAL]****(Plant Metabolism)**

Full Marks : 20

Time : 2 Hours

*The figures in the right-hand margin indicate marks.*

1. Give the outlines of principle, methodology, conclusion/remarks and precaution of the following experiment (any **one** of the following).

$$4+2+3+1=10$$

- a) Determination of rate of photosynthesis under varying  $\text{HCO}_3^-$  concentration in an aquatic plant and to find out the optimum and toxic condition.
- b) Determination of effect of promoter and inhibitor on the rate of aerobic respiration using Ganong's Respiroscope.
- c) Determination of the rate of respiration of different plant parts using Ganong's Respiroscope.

- d) Determination of RQ of germinating seeds.
- e) Estimation of nitrogen/amino acid by formal titration method (for any amino acid).
- f) Estimation of glucose by Benedict's quantitative reagent.
- g) Estimation of catalase activity in plant samples.
- h) Colorimetric estimation of protein by Folin phenol reagent.

2. Viva-voce. 5
3. Practical/laboratory note book. 5

*[Turn over]*