RANIGANJ GIRLS' COLLEGE

MODEL QUESTIONS

BOTANY [HONOURS]

PAPER- C11

The figure in the right-hand margin indicates marks. Candidates are required to give their answer in their own words as far as practicable.

Plant Physiology

F.M: 40

1. Answer any five questions of the following:	For	1	&	2	marks
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- (a) What do you mean by apoplast & symplast?
- (b) What is hydathode & its function?
- (c) What do you mean by photoperiodic induction?
- (d) Give the full form of NAA, 2, 4, 5 T
- (e) What do you mean by bolting in LDP?
- (f) Define water potential and osmotic potential.
- (g) Define polymer trapping model.
- (h) Define Donnan's equilibrium and ion antagonist.
- 2. Answer any two questions of the following: For 5 marks
 - (a) State the criteria of the essentiality of the nutrients in plants. What are symptoms of Ca deficiency of plants?
 - (b) State the mechanism of stomatal opening of plants. What are the synthetic antitranspirants?
 - (c) Classify the on the basis of their photoperiodic responses. What do you mean by noninductive cycles in plant w.r.t photoperiodism?
 - (d) Write down the physiological role of cytokinine.
 - (e) Write down the methods of breaking seed dormancy by physical and chemical manipulative methods.
- Answer any two questions of the following: For 10 marks
 (a) Write down the role of IAA on cell elongation, photoperiodism, gavitropism & apical

dominance. How does ABA inhibit GA-induced enzyme production in cereal grains?

(b) State the physiological & biochemical changes involved in the fruit ripening. What is the role of HIR on morphogenesis?

(c) Give an account of the mechanism of "active" uptake of ion with particular reference

to the chemical nature of the carrier. How is ion uptake linked to respiration?

(d) Write short notes on:

i) Phytochome on flowering, ii) RIA, iii) Tracer elements & their role on plants. iv)Transpiration pulls theory