

Total No. of Questions : 8]

SEAT No. :

[Total No. of Pages : 2

**P2137**

**[5329]-46**

**M.Sc. -II**

**BOTANY**

**BO - 4.44 : Plant Physiology**

**(2008 Pattern) (Semester IV) (Special Paper -II)**

*Time : 3 Hours]*

*[Max. Marks : 80*

*Instructions to the candidates:*

- 1) Answer any Five questions, taking at least two questions from each section.*
- 2) Answer to the two sections should be written on separate answer books.*
- 3) All questions carry equal marks.*
- 4) Neat diagrams must be drawn wherever necessary.*

**SECTION - I**

**Q1)** Discuss the effect of global warming on NAR and plant metabolism. **[16]**

**Q2)** Explain the mechanism of biosynthesis and degradation of carotenoids. **[16]**

**Q3)** a) Write on changing scenario of climate and crop physiology. **[8]**

b) Explain effect of green house gases on NAR in plants. **[8]**

**Q4)** Write note on any two. **[16]**

- a) Pigment organization in thylakoid
- b) Photorespiration
- c) Role of chlorophylls in plant.

**P.T.O.**

**SECTION - II**

**Q5)** Write effect of viral and mycoplasma infection on plant metabolism. [16]

**Q6)** Describe in detail chemical and structural defense mechanism in host plant. [16]

**Q7) a)** Give biochemical and photochemical properties of cryptochrome. [8]

b) Write effect of allelobiogenesis on plant metabolism. [8]

**Q8)** Write notes on any two. [16]

a) R-genes

b) Bt- cotton

c) Photoperiodism

