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RA-0750

Second Year B. Sc. Examination

March / April – 2010

Environmental Physics

Time : $1\frac{1}{2}$ Hours] [Total Marks : **35**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **S. Y. B. Sc.**

Name of the Subject :

☛ **Environmental Physics**

☛ Subject Code No. : **0 7 5 0** ☛ Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

(2) Q.1 is **compulsory**.
(3) Symbols have their usual meaning.
(4) Assume data if required.
(5) Draw neat diagram to support your answer.

1 (i) What is skin friction? **10**
(ii) Define viscosity.
(iii) What are the black body characteristics of clean snow ?
(iv) Reynold number
(v) What is Fliks law?

2 (a) Explain the transfer of momentum from moving air to stationary surface. Discuss the related forces. **7**

(b) Describe the development of laminar and turbulant boundary layers over a smooth flat plate immersed in a moving fluid. **6**

OR

2 (a) Describe Beer's Law for attenuation of a parallel rays of radiation. **5**

(b) Describe the transfer of heat from still warm air to cool surface. **8**

3 Write short notes : (any **two**) **12**
(i) Boundary layers (ii) Solar declination
(iii) Drag on leaves (iv) Direct solar radiation
(v) Brownian motion.