



J-0876
Second Year B. Sc. Examination
April/May – 2013
Environmental Physics

Time : $1\frac{1}{2}$ Hours]

[Total Marks : 35

Instructions :

(1)

<p>नीचे दृष्टावेव निशानीवाणी विगतो उत्तरवडी पर अवश्य वपनी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : S. Y. B. SC.</p> <p>Name of the Subject : ENVIRONMENTAL PHYSICS</p> <p>Subject Code No. : 0 8 7 6 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : [][][][][][][]</p> <p>Student's Signature</p>
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- (2) Q. 1 is compulsory.
- (3) Symbols have their usual meanings.
- (4) Draw neat diagram to support your answer.
- (5) Assume data if required.

- 1 Answer briefly : 8
- (a) Distinguish between Emissivity and absorptivity.
 - (b) What is drying and wetting of water.
 - (c) Define Raynold number.
 - (d) Define viscosity.
- 2 (a) What do you mean by black body ? What is black body radiation. Obtain Stefan Boltzman law and Wien's Displacement law from Plank's law. 7
- (b) Define the following term : 6
- (1) Irradiance
 - (2) Emittance

OR

- 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 turbulent boundary layers over a smooth flat plate immersed in a moving fluid. **6**
- 3** Write short notes : (any **four**) **14**
- (a) Heat transfer by conduction
- (b) Boundary layers
- (c) Drag on tree
- (d) Skin friction
- (e) Solar declination
- (f) Shape factor for sphere and ellipsoid.
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