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B.E. / B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2013
CIVIL ENGINEERING BRANCH
SECOND SEMESTER
PH 8203 - PHYSICS FOR CIVIL ENGINEERING
(REGULATIONS 2012)

Time: 3 hr

(Max. Mark: 100)

Answer ALL Questions
Part - A (10 × 2 = 20 Mark)

1. Define thermal conductivity.
2. What are the factors affecting the thermal performance of a building?
3. What is the need for the air filtration?
4. What are the different types of air pumps?
5. What is transmission loss in sound?
6. Explain glaring of light.
7. What are composites? What are the applications?
8. What are ceramics? What are the applications?
9. Explain P - waves and S-waves.
10. Write briefly the fire prevention code.

Part - B (5 × 16 = 80 Mark)

11. (a) Derive the expression for the flow of heat through compound media in bodies are series and parallel.
12. (a) i. Write in detail about the ventilation. (10)
ii. Explain different types of filtering. (6)
(OR)
(b) i. Discuss in detail the airconditioning systems for the buildings. (12)
ii. What are chillers? (4)
13. (a) Explain in detail the various methods of sound absorptions.
(OR)
(b) Write in detail about the day light design and measurements in the buildings.
14. (a) Explain in detail the preparation and the properties of metallic glasses.
(OR)
(b) Discuss in detail the the preparation and the properties and applications of shape memory alloys.
15. (a) Explain in detail the seismic waves and explain the principle and working of a seismograph.
(OR)
(b) Explain in detail how the cyclone is formed. What are the different types?