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Question Paper Code : X 10944

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020/
APRIL/MAY 2021
Second Semester
Civil Engineering
PH 8201 : PHYSICS FOR CIVIL ENGINEERING
(Regulations 2017)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A

(10×2=20 Marks)

1. Define thermal mass.
2. What is external shading devices ?
3. State Sabine's Law.
4. What is echelon effect ?
5. State radiant intensity.
6. What is daylight harvesting ?
7. How composite materials are classified ?
8. What is slip casting ?
9. Define intensity of earthquake.
10. What is Probabilistic Seismic Hazard Analysis (PSHA) ?

PART – B

(5×16=80 Marks)

11. a) Discuss the factors affecting the thermal performance of buildings.
(OR)
b) Describe the construction and working of window air conditioner.
12. a) List out the factors which affect architectural acoustics. Discuss any two in detail with its remedies.
(OR)
b) Explain sound absorbing materials and its classifications in detail.

X 10944

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13. a) Derive cosines law and inverse square law in photometry.
(OR)
b) Discuss daylight calculation and daylight design of windows.
14. a) Discuss the preparation, characteristics and types of Metallic Glasses.
(OR)
b) What are Shape Memory Alloys ? Discuss their characteristics exhibited by Ni-Ti shape memory alloys. List out any four applications.
15. a) Explain seismic waves and seismology.
(OR)
b) Discuss fire fighting equipments and fire protection in detail.
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