2008 VINAYAKA MISSION UNIVERSITY

B.E ENGINEERING PHYSICS

TIME: 3 HOUR
MARK: 100

Answer All Question

PART - A (10*2)

1.Define absorption of coefficient of a material ? Mention its unit

2.What are the differences between crystalline and non crystalline materials?

3.What are the conditions for total internal reflection?

4.What is simulated emission?

5.Why the electrical conductivity of a material decreases with increase in temperature

6.What is wave function

7.What is isothermal process

8.What are the advantages and disadvantages of Forbes method?

9.What is inverse piezo-electric effect?

10.What is the principle of ultrasonic flaw detection method?

PART – B(5*16)

Write in detail about the factors affecting architectural acoustics and thier remedies

OR

b.)What are the mil quantum miller indices?Write the steps for finding the Miller indices with an example

12.a)Describe the construction and working of CO2 laser with neat diagram

OR

b.)Explain the classification of optical fibres and also explain the modes of propagation of different fibres.

13.a)Briefly explain the quantum theory of radiation proposed by Planck and mention its sucess

OR

b.)Describe the cycle of operations involved in a ideal otto engine along with its efficiency

14.a)How will u find thermal conductivity of rubber tube and glass?

OR

b.)Describe the experiment to verify compton effect?

15.a)What is piezo electric effect ?Explain with a neat circuit the generation of ultrasonic using a piezo electric oscillator

OR

b.)Briefly explain the principle of X-ray radiography.Explain displacement techniquesto detect flaws by X-rays