

No. of Printed Pages : 8

Roll No. 180013

**1st Year / Common**  
**Subject : Applied Physics**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

**Note:** Objectives questions. All questions are compulsory (10x1=10)

**(Course Outcome/CO)**

- Q.1 Give the full form of LASER. (CO-13)
- Q.2 Pure semi conductors are called \_\_\_\_\_ semi conductors. (CO-12)
- Q.3 What are the units of electric power. (CO-10)
- Q.4 Give formula for total resistances. When they are connected in series. (CO-10)
- Q.5 The instruments used to see very small objects is called \_\_\_\_\_. (CO-8)
- Q.6 Give the full form of SHM. (CO-7)
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Q.7 The unit of charge is \_\_\_\_\_ (CO-9)

Q.8 Give two uses of telescope. (CO-8)

Q.9 The formula for ohms law is \_\_\_\_\_ (CO-10)

Q.10 Lens formula is given by \_\_\_\_\_ (CO-8)

**SECTION-B**

**Note:** Very Short answer type questions. Attempt any five questions out of seven. 2x5=10

- Q.11 Give two properties of heat radiations. (CO-6)
- Q.12 Define Time Period and Frequency. (CO-7)
- Q.13 Define Total Internal Reflection (CO-8)
- Q.14 Define Capacitance. Give its units (CO-9)
- Q.15 Define alternating current and Direct Current (CO-10)
- Q.16 Define Rectifier (CO-12)
- Q.17 Define Nano material. Give one example (CO-13)

### SECTION-C

**Note:** Short answer type questions. Attempt any six questions out of eight questions.  $6 \times 4 = 24$

Q.18 Define Heat and temperature on the basis of kinetic theory. (CO-6)

Q.19 What are the four methods to control Reverberation time. (CO-7)

Q.20 Define Reflection. What are the two laws of reflection. (CO-8)

Q.21 Define Electric lines of force. Write any four properties of electric lines of force. (CO-9)

Q.22 Calculate the total resistance when the resistances are connected in series. (CO-10)

Q.23 Define Diamagnetic, Paramagnetic and Ferromagnetic materials. Give one example of each. (CO-11)

Q.24 Explain conductors and insulators on the basis of kinetic theory. (CO-12)

Q.25 Define optical fiber. Give four applications. (CO-13)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions.  $2 \times 8 = 16$

Q.26 Calculate total capacitance when capacitors are connected in

(i) Series (ii) Parallel (CO-9)

Q.27 Explain conduction, convection and radiation with diagrams and two examples of each. (CO-6)

Q.28 Define Rectifier. Explain full wave rectifier (CO-12)

**(Note: Course outcome/CO is for office use only)**

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