

# CHEYYAR TUITION CENTER

இடம்: பழைய RTO Office அருகில், ஆரணி கூட்டுறவு.

State Board & CBSE

10<sup>th</sup> – All Subject

11<sup>th</sup>, 12<sup>th</sup> - (Physics, Chemistry, Mathematics)

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## Physics 1<sup>st</sup> Volume Full Test

Date: 18/09/2022

Total Marks: 70.

### Part-1

#### I. Answer all the questions

15X1=15.

- The dimension of  $\frac{1}{\epsilon\mu}$  is.....
- Fraunhofer line are an example of ----- spectrum
- Maxwell modified Amperes law as .....
- The average power in watts consumed in the circuit is .....
- Alternator is an .....device.
- Lenz's law is established on the basis of the law of.....
- The vertical component of Earth's magnetic field at a place is equal to the horizontal component. What is the value of angle of dip at this place.....
- Tangent law is  $B=$ .....
- What is the unit of Magnetic field is.....
- The internal resistance of a 2.1 V cell which gives a current of 0.2 A through a resistance of 10 ohm is .....
- The energy equivalent of one kilowatt-hour is.....
- What is the value of resistance of the following resistor? Red Black Green
- The unit of free space of permittivity.....
- Van de Graaff generator is used to produce large potential difference is .....
- If the point A and B lie on the same equipotential surface, work done is .....

### Part-2

#### II. Answer any six questions in which Q.no 22 is compulsory.

6X2=12.

- What is corona discharge?
- Define electric flux.
- What is Seebeck effect?
- State Ampere's circuital law.

20. State Flemings left rule.
21. State lenz's law?
22. Define Q factor?
23. What are electromagnetic waves?

### Part-3

### III. Answer any six questions in which Q.no 28 is compulsory.

6X3=18.

24. Write down the properties of electromagnetics wave (3).
25. Give the three uses of a IR radiation
26. How will you define RMS value of an alternating current?
27. Mention the ways of producing induced emf.
28. State Biot – Savart's law.
29. Define temperature co efficient of resistance.
30. Write a short note on electrostatic shielding.
31. What are the properties of an equipotential surface?

### Part-4

### IV. Answer all the questions

5X5=25.

32. Calculate the electric field due to a dipole on its axial line.  
(Or)

Obtain the expression for electric field due to an infinitely long charged wire.

33. Explain the construction and working of Transformer  
(Or)

Discuss the Ac circuit containing only an inductor.

34. Obtain the condition for bridge balance in Whetstones Bridge.  
(Or)

Explain the determination of the internal resistance of a cell using voltmeter.

35. Discuss the conversion of galvanometer into an ammeter and also a voltmeter.  
(Or)

Discuss the working of cyclotron in detail.

36. Write down Maxwell equations in integral form.  
(Or)

Explain the types of emission and absorption spectrum.

All the Best

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