

Dr. Ranjana Singh
Assistant Professor, Physics
HD Jain College
Ara, Bihar, India

MJCPHY06 (2nd Sem) 9:00am

Prerequisite - 02

In the last call we had discussed about whole course structure and unit wise details of the syllabus. Today I will discuss the marking structure of the paper along with previous knowledge about the induction and laws belonging to this effect.

Paper name : Electrodynamics & magnetism.

Total marks = 100 divided into two sections internal (30 marks)
+ External of (70 marks).

Internal \rightarrow continuous internal assessment \rightarrow 30 marks will be evaluated on the basis of following activity

- | | | |
|-----------------------------------|------------|---------------------------|
| (a) one written tests | = 15 marks | } \rightarrow 30 marks. |
| (b) Seminar / Quiz / Presentation | = 05 marks | |
| (c) Assignment | = 05 marks | |
| (d) Assessment + conduct | = 05 marks | |

External \rightarrow End semester examination \rightarrow 70 marks will be evaluated on the external exam only on the basis of following paper format. Time duration for external exam will be of 3 hours. The paper will be divided into three parts as follows:—

(a) \rightarrow Part A

Part A will include 10 multiple choice questions (compulsory) each question will carry equal marks of 2 $\Rightarrow 2 \times 10 = 20$ marks

(b) \rightarrow Part B

Part B will contain 06 short answer type questions. Out of which 04 question has to be chosen. Each question will carry equal marks 05
 $4 \times 05 = 20$ marks.

(c) \rightarrow Part C

Part C will contain 05 long answer type question. Out of which three need to be answered. Each question will carry 10 marks.
 $3 \times 10 = 30$ marks.

continued

Dr. Ranjana Singh

Assistant Professor, Physics

MP Jain College

Asra, Bihar, India.

It is mandatory for a student to pass in the both CIA & ESE.
The pass marks for CIA & ESE most probably 45-1.

Now let us start our 2nd class:-

Good morning everyone.

In the last class we have discussed Gauss's law for electrostatics & its application.

Today I want to give you one assignment based on induction.

(a) Discuss Faraday's law of induction.

(b) Explain Lenz's law in detail.

(c) magnetic field $\vec{B} = 3\hat{i} + 2\hat{j} - 3\hat{k}$ passes through surface area $\vec{A} = \hat{i} + 2\hat{j} - 3\hat{k}$ calculate the value of magnetic flux.

(d) magnetic flux $\phi = 3t^2 + 5t$ is given, at time $t = 2$ s, calculate the value of electromotive force using Faraday's law

$$\boxed{\mathcal{E} = - \frac{d\phi}{dt}}$$

In the next class I will discuss Faraday's law & Lenz's law in detail. If anyone has any doubt we can gather on google meet platform.

Thank you & Goodbye

We will meet tomorrow at the same time.