

DEPARTMENT OF PHYSICS

R.C.S. COLLEGE, MANJHAUL

(A CONSTITUENT UNIT OF L.N. MITHILA UNIVERSITY, DARBHANGA)

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Ref. No.

Date27/03/2026.....

Assignment-MJCPHY08

Subject: **Physics**

Name of the Course: **-Elements of Modern Physics**

Course Code: **MJCPHY08**

Semester: **Semester-V**, Session: **2023-2027**

Answer all questions.

Q.1

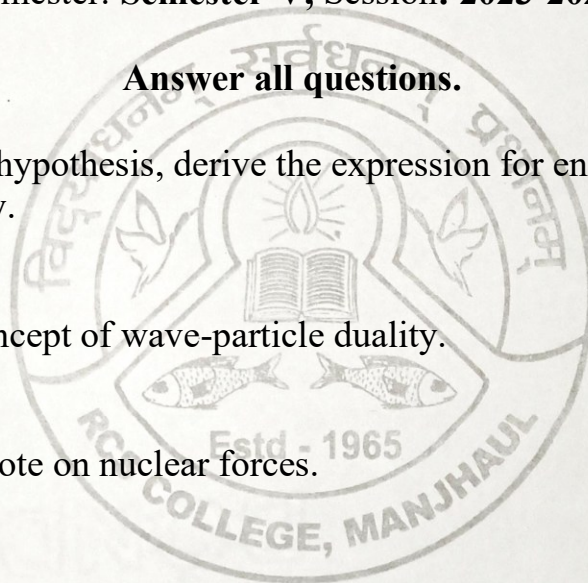
Using Plank's hypothesis, derive the expression for energy density of a black body.

Q.2

Explain the concept of wave-particle duality.

Q.3

Write a short note on nuclear forces.



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Assignment-MJCPHY09

Subject: **Physics**

Name of the Course: - **Basic Electronics (T)**

Course Code: **MJCPHY09**

Semester: **Semester-V**, Session: **2023-2027**

Answer all questions.

Q.1

Explain the characteristics of different configurations of a Bipolar Junction transistors.

Q.2

State and proof De Morgan's theorem used in Boolean Algebra.

Q.3

Write a short note on P- and N- type semiconductors.

Name of the Course: - **Basic Electronics (P)**

Q.1

Why is NAND gate called universal gate?

Q.2

Draw and explain the V-I characteristics of a P-N junction.

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Assignment-MICPHY05

Subject: **Physics**

Name of the Course: -**Mathematical Physics-II & Introduction to computational Methods (T)**

Course Code: **MICPHY05**

Semester: **Semester-V, Session: 2023-2027**

Answer all questions.

Q.1

Discuss briefly the different data types, character sets, and operators used in FORTRAN.

Q.2

Using Stoke's theorem show that the surface integral of the curl of a vector field is equal

Name of the Course: -

Mathematical Physics-II & Introduction to computational Methods (P)

Q.1 Giving one example explain different types of errors used in numerical methods.