

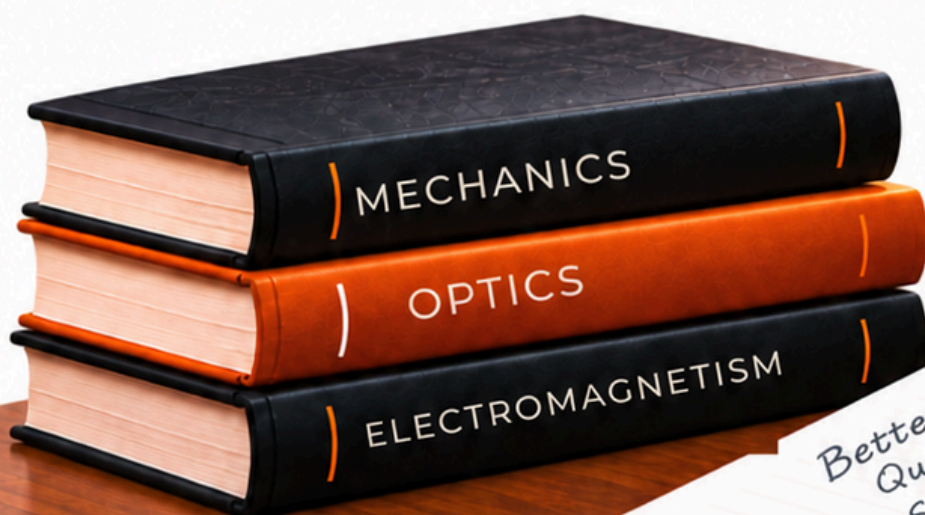
JEE Main Physics

Fundamental and derived units PYQ

$$F = ma$$



$$v = u + at$$



Better
Questions
Stronger
Concepts
Brighter Future

Subject: Physics

Years: 2026-2021

Total Questions: 7

About this PYQ collection

What is inside

A complete topic-wise set of **7 previous year questions** on **Fundamental and derived units** from **JEE Main (2026-2021)**, across **5 exam years**. **7 questions** are from 2019 onwards, so most of the set reflects the recent NTA pattern.

Questions are arranged to reduce unused page space, with newest-first priority and continuous numbering from 1. Each carries an exam date and shift tag to trace the original paper.

Topic-wise questions

TOPIC	QS	%
Fundamental and derived units	7	100%

Question types

TYPE	QS	%
Single-correct MCQ	7	100%

This collection contains multiple-choice questions.

How these questions help you

- **Know where the marks are:** fundamental and derived units make up **7 of 7 questions** (about 100%).
- **Build speed and accuracy:** short, formula-driven questions ideal for quick practice.
- **Learn the patterns:** the same question styles return year after year.
- **Strengthen other chapters:** dimensions and error estimation are used across Physics.

Questions – Fundamental and derived units

1. If ϵ , E and t represent the free space permittivity, electric field and time respectively, then the unit of $\frac{\epsilon E}{t}$ will be : (22 Jan 2026 | Shift 2)

- (A) Am (B) A/m
 (C) A/m² (D) Am²

2. Match List - I with List - II.

List - I	List - II
(A) Heat capacity of body	(I) J kg ⁻¹
(B) Specific heat capacity of body	(II) J K ⁻¹
(C) Latent heat	(III) J kg ⁻¹ K ⁻¹
(D) Thermal conductivity	(IV) J m ⁻¹ K ⁻¹ s ⁻¹

Choose the correct answer from the options given below : (2 Apr 2025 | Shift 2)

- (A) (A)-(IV), (B)-(III), (C)-(II), (D)-(I) (B) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)
 (C) (A)-(III), (B)-(IV), (C)-(I), (D)-(II) (D) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)

3. Match List - I with List - II.

List - I	List - II
(A) Magnetic induction	(I) Ampere meter ²
(B) Magnetic intensity	(II) Weber
(C) Magnetic flux	(III) Gauss
(D) Magnetic moment	(IV) Ampere meter

Choose the correct answer from the options given below: (29 Jan 2025 | Shift 2)

- (A) (A)-(III), (B)-(IV), (C)-(II), (D)-(I) (B) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
 (C) (A)-(III), (B)-(IV), (C)-(I), (D)-(II) (D) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)

4. If E and H represents the intensity of electric field and magnetising field respectively, then the unit of E/H will be : (27 Aug 2021 | Shift 1)

- (A) ohm (B) mho
 (C) joule (D) newton

5. Match List I with List II:

List I		List II	
A.	Torque	I.	$\text{kg m}^{-1} \text{s}^{-2}$
B.	Energy density	II.	kg ms^{-1}
C.	Pressure gradient	III.	$\text{kg m}^{-2} \text{s}^{-2}$
D.	Impulse	IV.	$\text{kg m}^2 \text{s}^{-2}$

Choose the correct answer from the options given below:

(30 Jan 2023 | Shift 2)

(A) A-IV, B-I, C-III, D-II

(B) A-IV, B-I, C-II, D-III

(C) A-I, B-IV, C-III, D-II

(D) A-IV, B-III, C-I, D-II

6. Match List I with List II.

	List I		List II
A.	Torque	I.	Nms^{-1}
B.	Stress	II.	J kg^{-1}
C.	Latent Heat	III.	Nm
D.	Power	IV.	Nm^{-2}

Choose the correct answer from the options given below :

(29 Jul 2022 | Shift 2)

(A) A-III, B-II, C-I, D-IV

(B) A-III, B-IV, C-II, D-I

(C) A-IV, B-I, C-III, D-II

(D) A-II, B-III, C-I, D-IV

7. Match List - I with List - II.

	List - I		List - II
(a)	R_H (Rydberg constant)	(i)	$kg\,m^{-1}s^{-1}$
(b)	h (Planck's constant)	(ii)	$kg\,m^2s^{-1}$
(c)	μ_B (Magnetic field energy density)	(iii)	m^{-1}
(d)	η (coefficient of viscosity)	(iv)	$kg\,m^{-1}s^{-2}$

Choose the most appropriate answer from the options given below : (27 Aug 2021 | Shift 2)

- (A) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i) (B) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)
- (C) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii) (D) (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)