

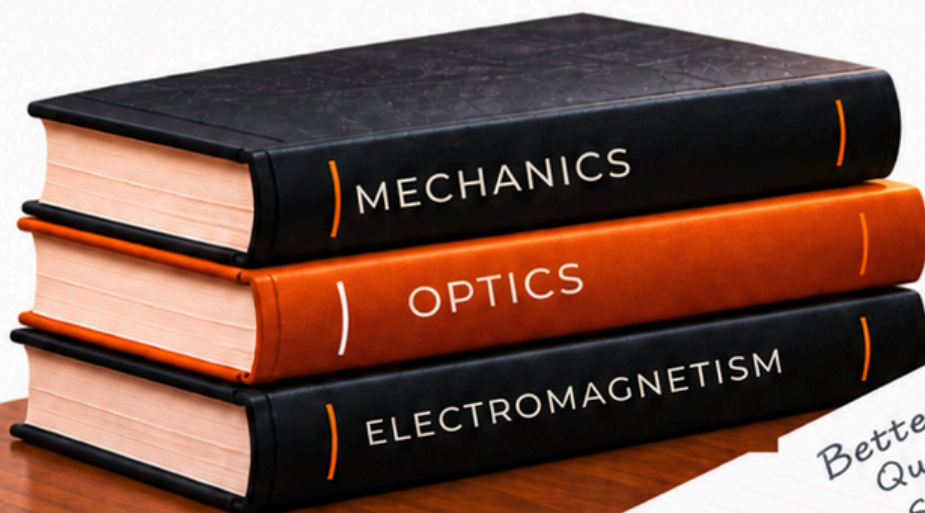
JEE Main Physics

Least count and significant figures PYQ

$$F = ma$$



$$v = u + at$$



Better
Questions
Stronger
Concepts
Brighter Future

Subject: Physics

Years: 2026-2008

Total Questions: 11

About this PYQ collection

What is inside

A complete topic-wise set of **11 previous year questions** on **Least count and significant figures** from **JEE Main (2026-2019)** and its predecessor **AIEEE (2010-2008)**, across **7 exam years**. **9 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	%
Least count, significant figures	11	100%

Question types

TYPE	QS	%
Single-correct MCQ	11	100%

This collection contains multiple-choice questions.

How these questions help you

- **Know where the marks are:** least count, significant figures make up **11 of 11 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 – Least count and significant figures

1. Keeping the significant figures in view, the sum of the physical quantities 52.01 m, 153.2 m and 0.123 m is : (21 Jan 2026 | Shift 2)
- (A) 205.3 m (B) 205 m
(C) 205.333 m (D) 205.33 m
-
2. A person measures mass of 3 different particles as 435.42 g, 226.3 g and 0.125 g . According to the rules for arithmetic operations with significant figures, the addition of the masses of 3 particles will be. (3 Apr 2025 | Shift 1)
- (A) 661.845 g (B) 661.84 g
(C) 662 g (D) 661.8 g
-
3. For an experimental expression $y = \frac{32.3 \times 1125}{27.4}$, where all the digits are significant. Then to report the value of y we should write (24 Jan 2025 | Shift 1)
- (A) $y = 1326.186$ (B) $y = 1326.2$
(C) $y = 1326.19$ (D) $y = 1330$
-
4. Time periods of oscillation of the same simple pendulum measured using four different measuring clocks were recorded as 4.62 s, 4.632 s, 4.6 s and 4.64 s. The arithmetic mean of these readings in correct significant figure is : (5 Apr 2024 | Shift 1)
- (A) 5 s (B) 4.6 s
(C) 4.62 s (D) 4.623 s
-
5. A student measuring the diameter of a pencil of circular cross-section with the help of a vernier scale records the following four readings 5.50 mm, 5.55 mm, 5.45 mm, 5.65 mm. The average of these four readings is 5.5375 mm and the standard deviation of the data is 0.07395 mm. The average diameter of the pencil should therefore be recorded as : (6 Sept 2020 | Shift 2)
- (A) (5.54 ± 0.07) mm (B) (5.5375 ± 0.0740) mm
(C) (5.5375 ± 0.0739) mm (D) (5.538 ± 0.074) mm

6. Match List - I with List - II.

List I (Number)	List II (Significant figure)
(A) 1001	(I) 3
(B) 010.1	(II) 4
(C) 100.100	(III) 5
(D) 0.0010010	(IV) 6

Choose the correct answer from the options given below :

(1 Feb 2024 | Shift 2)

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

7. For the four sets of three measured physical quantities as given below. Which of the following options is correct ?

- (i) $A_1 = 24.36$, $B_1 = 0.0724$, $C_1 = 256.2$
 (ii) $A_2 = 24.44$, $B_2 = 16.082$, $C_2 = 240.2$
 (iii) $A_3 = 25.2$, $B_3 = 19.2812$, $C_3 = 236.183$
 (iv) $A_4 = 25$, $B_4 = 236.191$, $C_4 = 19.5$

(9 Jan 2020 | Shift 2)

- (A) $A_1 + B_1 + C_1 = A_2 + B_2 + C_2 = A_3 + B_3 + C_3 = A_4 + B_4 + C_4$ (B) $A_4 + B_4 + C_4 < A_1 + B_1 + C_1 < A_3 + B_3 + C_3 < A_2 + B_2 + C_2$
 (C) $A_4 + B_4 + C_4 < A_1 + B_1 + C_1 = A_2 + B_2 + C_2 = A_3 + B_3 + C_3$ (D) $A_4 + B_4 + C_4 > A_3 + B_3 + C_3 = A_2 + B_2 + C_2 > A_1 + B_1 + C_1$

8. The area of a square is 5.29 cm^2 . The area of 7 such squares taking into account the significant figures is :-

(9 Apr 2019 | Shift 2)

- (A) 37.0 cm^2 (B) 37 cm^2
 (C) 37.030 cm^2 (D) 37.03 cm^2

9. The respective number of significant figures for the numbers 23.023, 0.0003 and 2.1×10^{-3} are

(25 Apr 2010 | Single sitting)

- (A) 5, 1, 2 (B) 5, 1, 5
 (C) 5, 5, 2 (D) 4, 4, 2

10. The diameter and height of a cylinder are measured by a meter scale to be 12.6 ± 0.1 cm and 34.2 ± 0.1 cm, respectively. What will be the value of its volume in appropriate significant figures ? (10 Jan 2019 | Shift 2)

(A) $4264.4 \pm 81.0 \text{ cm}^3$ (B) $4264 \pm 81 \text{ cm}^3$
(C) $4300 \pm 80 \text{ cm}^3$ (D) $4260 \pm 80 \text{ cm}^3$

11. A body of mass $m = 3.513$ kg is moving along the x-axis with a speed of 5.00 ms^{-1} . The magnitude of its momentum is recorded as (27 Apr 2008 | Single sitting)

(A) 17.6 kg ms^{-1} (B) $17.565 \text{ kg ms}^{-1}$
(C) 17.56 kg ms^{-1} (D) 17.57 kg ms^{-1}