



RAM



(RECALL ALL MEMORY)

04

2023
THEORY

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கல்விப் பொதுத் தராதரப் பத்திர(உயர் தர)ப் பரீட்சை, 2023 ஓகஸ்ட்
General Certificate of Education (Adv. Level) Examination, August 2023

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பௌதிகவியல்
Physics

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Advanced Level Physics
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PHT5783 2023Th 2021-06-26

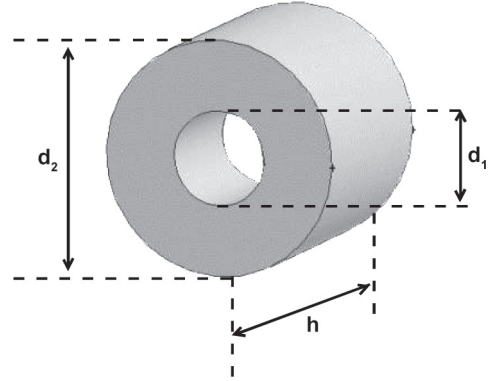
Multiple Choice Questions

1. Which one of the following is a SI unit ?
(1) Kg (2) mS⁻¹ (3) C (4) Cm (5) k

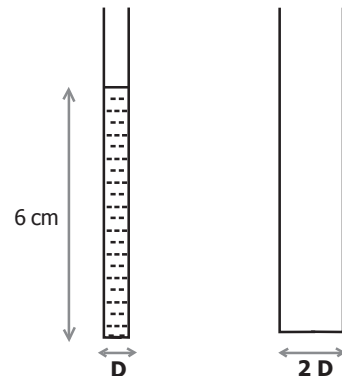
2. In the expression $C = \sqrt{P/k}$, C is velocity and P is pressure. Units of k would be,
(1) kg m⁻¹ (2) kg s⁻¹ (3) kg s⁻¹m⁻² (4) s⁻¹ (5) kg m⁻³

3. Volume of the represented object in terms of the shown measurements equals to,

- (1) $\pi (d_2 - d_1)^2 h$ (2) $\frac{\pi (d_2 - d_1)^2 h}{2}$
(3) $\pi (d_2^2 - d_1^2) h$ (4) $\frac{\pi}{2} (d_2^2 - d_1^2) h$
(5) $\frac{\pi}{4} (d_2^2 - d_1^2) h$



4. A measuring cylinder of diameter D is filled with water upto 6 cm. When adding that water into another measuring cylinder of diameter 2 D, the height of the water column would be,
(1) 1.5 cm
(2) 3 cm
(3) 2 cm
(4) 2.5 cm
(5) 4 cm



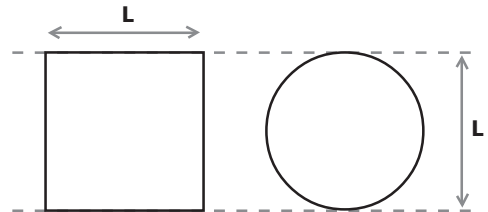
5. In a circle, the angle subtended at the centre by an arc of length equals to the radius is said to be a radian. The angle subtended by the whole circumference of the circle at centre, in radians would be,

- (1) 2
- (2) 4
- (3) π
- (4) 2π
- (5) 4π

6. A regular square and a circular frame are made by a wire of uniform thickness,

The ratio $\frac{\text{Mass of the square}}{\text{Mass of the frame}}$ equals to,

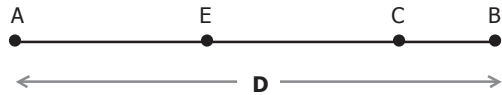
- (1) $\frac{2}{\pi}$
- (2) $\frac{4}{\pi}$
- (3) 2
- (4) 4
- (5) 2π



7. C is the point which divides the distance D to the ratio 4 : 1. E is the point which divides AB to the ratio 2 : 3.

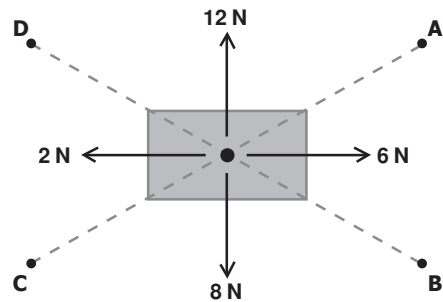
$\frac{AC}{EB}$ equals to,

- (1) $\frac{3}{4}$
- (2) $\frac{2}{5}$
- (3) $\frac{4}{3}$
- (4) $\frac{5}{3}$
- (5) $\frac{2}{3}$



8. The direction an object, kept on a smooth table tends to travel, when four forces are exerted on it parallel to the plane of the table is,

- (1) OA
- (2) OB
- (3) OC
- (4) OD
- (5) Remains at rest without moving towards any direction



9. The quantities L and T in the expression $f = \frac{1}{2L}\sqrt{\frac{T}{m}}$ were doubled. In order to keep the value of 'f' constant

the value of m has to be,

- (1) doubled
- (2) multiplied by four
- (3) multiplied by $\sqrt{2}$
- (4) halved
- (5) multiplied by $1/\sqrt{2}$

10. If a person sells toffees such that two toffees worth one rupee, which were bought at a rate of three toffees for one rupee, the percentage of the profit he obtained by selling toffees is,

- (1) $\frac{100}{3}\%$
- (2) $\frac{200}{3}\%$
- (3) 50%
- (4) 25%
- (5) 60%