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Section : 01

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Q1 : $5 \times 3 = 15$

$$= 15 \times 10^{6+4} = 15 \times 10^{10}$$

$$= 1.5 \times 10^{11} \checkmark$$

Q2 : $5 \times 3 = 15$

$$15 \times 10^{4-6} = 15 \times 10^{-2}$$

$$= 1.5 \times 10^{-1} \checkmark$$

Q3 : $1.5 \text{ ft} \times \frac{1}{3.821} = \frac{1.5}{3.821} = 0.457$

$$V = (0.457)^3$$

$$= 0.0956 = 9.6 \times 10^{-2} \text{ m}^3 \checkmark$$

Q4 : $V = \frac{4}{3} \pi r^3$

$$V = \frac{4}{3} \pi (1.7)^3 \Rightarrow V = \frac{4}{3} \pi (4.913)$$

$$= 6.55 \pi$$

$$= 2.1 \times 10^{-5} \text{ m}^3 \checkmark$$

Q5 : The answer is (E) The speed of light

Q6 : The answer is (B) 3

Q7 : (C) 3

Q8 : (C) because 3.2×2.7 both have one significant

Q9 : 1.513 ~~8.0~~
 27.3

$28.813 \rightarrow$ So bec it's one significant we say 28.8

Q10 : (A) rotation of the Earth.

$$\begin{aligned}
 Q11: & 6.000.000 \times \frac{1 \text{ min}}{60 \text{ s}} \times \frac{1 \text{ h}}{60 \text{ min}} \times \frac{1 \text{ day}}{24 \text{ h}} \times \frac{1 \text{ month}}{30 \text{ days}} \\
 &= 1.00000 \times \frac{1 \text{ h}}{60 \text{ min}} \times \frac{1 \text{ day}}{24 \text{ h}} \times \frac{1 \text{ month}}{30 \text{ days}} \\
 &= \frac{16666.6}{24 \text{ h}} \times \frac{1 \text{ month}}{30 \text{ days}} = \frac{694.4}{30 \text{ days}} = \boxed{2.3 \text{ month}}
 \end{aligned}$$

Q12: (C) Kilogram Per Cubic meter

$$\begin{aligned}
 Q13: & A = BC \quad \boxed{B = ?} \quad \boxed{A = \frac{L}{m}} \quad \boxed{C = \frac{T}{m}} \\
 & \frac{L}{m} = B \frac{T}{m} \quad \boxed{B = \frac{T}{m}}
 \end{aligned}$$

$$\begin{aligned}
 Q14: & 0.5 \times 10^6 + 3.0 \times 10^6 \rightarrow 5.0 \times 10^6 \\
 &= 3.5 \times 10^6
 \end{aligned}$$

Q15: Kilogram

Q16: is 10^{-9} s