

# Atomic Energy Central School

## Rawatbhata

### CLASS 07 - MATHEMATICS

#### CONFIDENCE

Time Allowed: 3 hours

Maximum Marks: 80

#### Section A

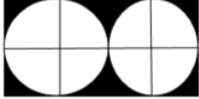
- The weight of one iron ball is 16 kg. Find the weight of 8 such iron balls. [1]  
a) 128 kg  
b) None of these  
c) 100 kg  
d) 120 kg
- The area of a circle is  $49\pi\text{cm}^2$ . Its circumference is [1]  
a)  $14\pi$  cm  
b)  $21\pi$  cm  
c)  $7\pi$  cm  
d) None of these
- Fill in the blank :  $(-1)^{\text{even number}} = \underline{\hspace{2cm}}$ . [1]  
a) None of these  
b) 1  
c) 0  
d) -1
- Which of the following is like term as  $7x^2y^2$ ? [1]  
a)  $7x$   
b)  $13x^2y^2$   
c)  $7y$   
d)  $7y^2$
- Fill in the boxes with the correct symbol:  $\frac{-3}{5} \underline{\hspace{0.5cm}} \frac{3}{-5}$  [1]  
a) <  
b) =  
c) >  
d) None of these
- Find the ratio of speed of a car 50 km per hour to the speed of scooter 40 km per hour. [1]  
a) It is 1:5  
b) It is 4:5  
c) It is 4:1  
d) It is 5:4
- The radius of wheel is 0.25 m. How many revolutions will it make in covering 11 km? [1]  
a) 2800  
b) None of these  
c) 7000  
d) 1400
- The equation for the statement: one fourth of a number minus 4 gives 4. [1]  
a)  $\frac{x}{4} - 4 = 4$   
b)  $x - 4 = 4$   
c)  $4x = 4$   
d)  $4x - 4 = 4$
- The usual form of  $1.001 \times 10^9$  is [1]  
a) 100100000  
b) 1001000000  
c) 10010000  
d) 1001000



29. A picture is painted on a cardboard 8 cm long and 5 cm wide such that there is a margin of 1.5 cm along each of its sides. Find the total area of the margin. [3]
30. Find the Perimeter of a Rectangle whose sides are- [3]  
 $l = m^2 + n^2$ ,  $b = m^2 - 3n^2 - 5$

**Section D**

31. Kedar bought a motorcycle for Rs.55000 and paid Rs.200 for its cartage. He sold it at a gain of 10%. What is Kedar's profit. [4]
32. Draw a  $\triangle PQR$  such that  $PQ = 4.8$  cm,  $\angle Q = 45^\circ$ ,  $\angle P = 55^\circ$ . Find the  $\angle R$ . [4]
33. Two equal circles are drawn in a rectangular shape of sides 40 cm and 20 cm. Find the area of the shaded region. [4]



34. i. Solve:  $\left[ \frac{-14}{9} \right] \times \frac{3}{5} \times \left[ \frac{-4}{7} \right] \times \frac{15}{16}$ . [4]  
 ii. Represent  $\frac{-1}{5}$  on the number line.
35. If  $\frac{p}{q} = \left( \frac{-3}{4} \right)^{16} \div \left[ \left( \frac{-3}{4} \right)^3 \right]^4$ , find the value of  $\left( \frac{p}{q} \right)^2 \div \left( \frac{q}{p} \right)^3$ . [4]