

Class : 7  
Date : 3.12.2015

FINAL UNIT TEST 2015-2016  
MATHS

Marks : 20  
Time : 45 Mins.

Note: All the questions are to be done in the answer sheet.

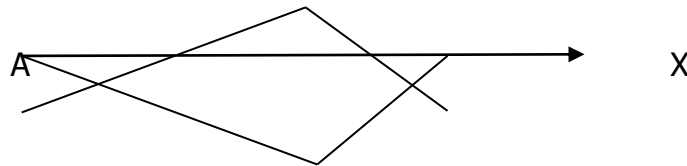
**I. Fill in the blanks:**

$$\left(\frac{1}{2} \times 4 =\right) 2$$

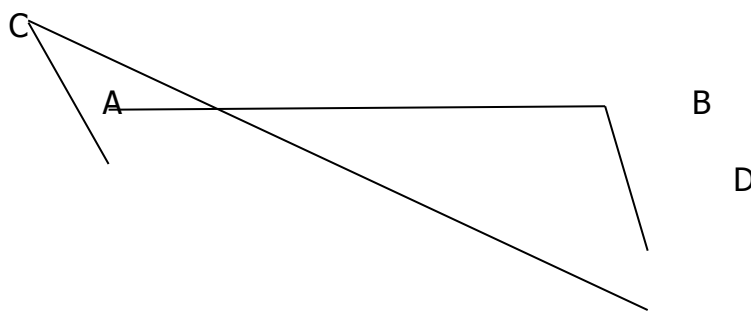
1.  $2 \times 10^3 =$  \_\_\_\_\_
2.  $2^3 \div 2^{-2} =$  \_\_\_\_\_
3. Two circles are congruent, if they have same \_\_\_\_\_
4.  $\triangle ABC \cong \triangle QPR$ , if  $\angle A = 65^\circ$ ,  $\angle B = 35^\circ$ , then  $\angle R =$  \_\_\_\_\_

**II. Answer the following questions :**

1. Simplify : (i)  $(2^0 \times 5^0) - (-2)^0$  (1)  
(ii)  $(3^4 \times 3^5) \div 3^9$  (1)
2. Express  $\frac{-1}{343}$  in power notation.  $(1 \frac{1}{2})$
3. In figure, AX bisects  $\angle BAC$  as well as  $\angle BDC$ . Show that  $\triangle ABD \cong \triangle ACD$ .  $(1 \frac{1}{2})$

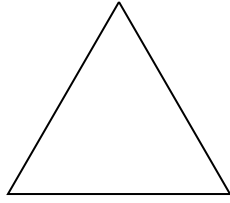


4. Simplify  $(5^{-1} \times 3^{-1})^{-1} \div 6^{-1}$   $(1 \frac{1}{2})$
5. In figure,  $OA = OB$  and  $OC = OD$ , show that  $\triangle AOC \cong \triangle BOD$ .  $(1 \frac{1}{2})$



6. Find the value of  $(\frac{1}{2})^3 \times 2^3 \times (\frac{3}{4})^2$  (2)
7. Simplify  $[(5^2)^3 \times 5^4] \div 5^7$  (2)
8. Find x if  $(\frac{1}{4})^{-3} \times (\frac{1}{4})^8 = (\frac{1}{4})^{2x+1}$  (2)
9. ABC is an isosceles triangle with  $AB = AC$  and AD an altitude. (2)  
Show that (i)  $\triangle ADB \cong \triangle ADC$  (ii)  $BD = CD$ .

A



10. If  $\frac{p}{q} = \left(\frac{5}{6}\right)^2 \div \left(\frac{5}{6}\right)^0$ , Find the value of  $\left(\frac{p}{q}\right)^2$  (2)

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