

# ARCHITA EDUCENTER

## CLASS-IX MATHS-MOCK-TEST(SET-1)

### \*MULTIPLE CHOICE QUESTIONS:1X10=10

#### SECTION-A

1. The class mark of the class 90-120 is-

- (a) 90      (b) 105      (c) 115      (d) 120

2. Median of the numbers 4,4,5,7,6,7,7,3,12 is-

- (a) 4      (b) 5      (c) 6      (d) 7

3. If the distance between the point (2,-2) and (-1,x) is 5 units, then one of the value of x is-

- (a) -2      (b) 2      (c) -1      (d) 1

4. The points A(9,0), B(9,6), C(-9,6) and D(-9,0) are the vertices of a

- (a) rectangle      (b) square      (c) rhombus      (d) trapezium

5. If  $\tan A = \sqrt{3}$ , then the value of cosec A is-

- (a)  $\frac{1}{2}$       (b) 2      (c)  $2/\sqrt{3}$       (d)  $\sqrt{3}/2$

6. If  $\sec \theta \cdot \sin \theta = 0$  then the value of  $\cos \theta$  is-

- (a) 0      (b)  $1/\sqrt{2}$       (c)  $\frac{1}{2}$       (d)

7. If  $\tan A = x/y$ , then  $\cos A$  is equal to-

- (a)  $x/\sqrt{x^2+y^2}$       (b)  $y/\sqrt{x^2+y^2}$       (c)  $x^2-y^2/\sqrt{x^2+y^2}$       (d)  $x^2-y^2/x^2+y^2$

8. If  $\log(3x+1) = 2$ , then the value of x is-

- (a)  $1/3$       (b) 99      (c) 33      (d)  $19/3$

9. The value of  $\log_8 \log_2 / \log_3 2$  is-

- (a)  $\frac{2}{5}$       (b)  $\frac{1}{4}$       (c)  $-\frac{2}{5}$       (d)  $\frac{1}{3}$

10. Value of  $(256)^{0.16} \times (256)^{0.09}$  is-

- (a) 4      (b) 16      (c) 64      (d) 256.25

**SECTION-B**

**3X5=15**

1. The mean height of 36 students of a class is 150.5 cm. later on, it was detected that the height of one students was wrongly copied as 165 cm instead of 156cm. find the correct mean height.
2. The mean of 40 items is 35. Later on, it was discovered that two items were misread as 36 and 29 instead of 63 and 22. Find the correct mean.
3. Find the point on x-axis which is equidistant from the points (2,-5) and (-2,9).
4. If a point A(0,2) is equidistant from the points B(3,p) and C(p,5), then find the value of p.
5. Find the value of A if:  $\sin 3A = \cos(A-6^\circ)$ , where  $3A$  and  $A-6^\circ$  are acute angles.

**SECTION-C**

**4X5=20**

1. Find the difference between C.I and S.I. on sum of Rs. 4800 for 2 years at 5% per annum payable yearly.
2. The present population of a town is 200000. Its population increases by 10% in the first year and 15% in the second year. Find the population of the town at the end of the two years.
3. Given a and b are rational numbers. Find a and b if:  $3 - \frac{\sqrt{5}}{3} + 2\sqrt{5} = -\frac{19}{11} + a\sqrt{5}$ .
4. A fraction becomes  $\frac{9}{11}$ , if 2 is added to both numerator and denominator. If 3 is added to both the numerator and denominator it becomes  $\frac{5}{6}$ . Find the fraction.

5. Prove:  $(a+b)^{-1}(a^{-1}+b^{-1})=1/ab$

**SECTION:D**

**5X1:5**

1. The sum of a two digit number and the number obtained by interchanging the digits is 132. If the two digits differ by 2, find the number(s).