



# O.P. Jindal School, Patratu

## Model question paper (Annual examination)

Class – VII  
Sub. – MATHEMATICS

F.M: 80  
Time: 3 HRS

(SECTION – A) ( $1 \times 20 = 20$ )

Choose the correct options

- The numerator of a rational number 0 is  
(a) 0      (b) 1      (c) 5      (d) none of these
- The denominator of the rational number -6 is  
(a) 1      (b) -2      (c) -3      (d) none of these
- Which of the following is a negative rational number ?  
(a)  $\frac{1}{2}$       (b)  $\frac{-4}{-5}$       (c)  $\frac{2}{-3}$       (d) none of these
- Which of the following is correct ?  
(a)  $0 > \frac{-4}{-5}$       (b)  $0 > \frac{1}{2}$       (c)  $0 = \frac{4}{9}$       (d) none of these
- The reciprocal of  $\frac{-5}{3}$  is  
(a)  $\frac{-3}{5}$       (b)  $\frac{-2}{5}$       (c)  $\frac{-4}{5}$       (d) none of these
- The sum of  $\frac{-6}{5} + 0 =$  ----  
(a) 0      (b)  $\frac{-6}{5}$       (c)  $\frac{-2}{5}$       (d) none of these
- $\frac{-3}{2} \times \frac{-7}{2} =$  ---  
(a)  $\frac{21}{4}$       (b)  $\frac{-5}{2}$       (c)  $\frac{-21}{4}$       (d) none of these
- Area of triangle = ---  
(a) Base x height      (b)  $\frac{1}{2}$  x base x height      (c)  $\frac{1}{3}$  x base x height  
(d) none of these
- The circumference of a circle of diameter d is  
(a)  $\pi d$       (b)  $6d^2$       (c)  $2d^2$       (d) none of these
- The area of a circle of radius r is  
(a)  $\pi r^2$       (b)  $2\pi r^2$       (c)  $3\pi r^2$       (d) none of these
- 1 hectare = ---  
(a)  $10000m^2$       (b)  $1000m^2$       (c)  $100m^2$       (d) none of these
- How many terms are there in the expression  $2x^2y$ ?

- (a) 1                      (b) 2                      (c) 3                      (d) none of these
13. What is the coefficient of x in the expression  $4x+3y$ ?  
 (a) 3                      (b) 4                      (c) 5                      (d) none of these
14. Which of the following pairs of terms is a pair of like terms?  
 (a) 1, 10                      (b) y, xz                      (c) x, yz                      (d) none of these
15. The exponential form of 100 is  
 (a)  $10^2$                       (b)  $10^3$                       (c)  $10^4$                       (d) none of these
16. The exponential form of 32 is  
 (a)  $2^5$                       (b)  $2^4$                       (c)  $2^3$                       (d) none of these
17. What is the base in  $8^5$   
 (a) 8                      (b) 5                      (c) 0                      (d) none of these
18. How many lines of symmetry are there in an equilateral triangle?  
 (a) 3                      (b) 2                      (c) 1                      (d) none of these
19. How many lines of symmetry are there in a square  
 (a) 4                      (b) 6                      (c) 8                      (d) none of these
20. The solution of the equation  $4p - 3 = 13$  is  
 (a) 3                      (b) 4                      (c) 2                      (d) 5
- ( SECTION – B ) ( 2 x6 = 12)

21. Simplify:  $21b - 32 + 7b - 20b$
22. Solve:  $3^2 \times 3^4 \times 3^8$
23. Solve :  $2^0 \times 3^0 \times 4^0$
24. Find the sum:  $\frac{5}{4} + (\frac{-15}{4})$
25. Solve :  $\frac{-3}{8} - \frac{7}{12}$
26. Solve :  $\frac{3}{13} \div (\frac{-6}{65})$

(SECTION – C )( 3 x 6 =18)

27. Construct three equations starting with  $x = -2$  .
28. Laxmi`s father is 49 years old .He is 4 years older than three times Laxmi`s age . What is Laxmi`s age?
29. The circumference of a circle is 31.4 cm. Find the radius and the area of the circle?
30. How many times a wheel of radius 28cm must rotate to go 352m ?
31. If  $p = -10$  , find the value of  $p^2 - 2p - 100$
32. Subtract: a (b – 5) from b( 5 – a)

(SECTION – D) (5 x 4 = 20)

33. Simplify :  $\frac{25 \times 5^2}{10^3} \times \frac{t^8}{t^4}$

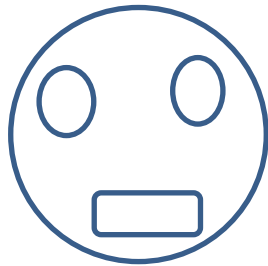
34. From the sum of  $4 + 3x$  and  $5 - 4x + 2x^2$ , Subtract the sum of  $3x^2 - 5x$  and  $-x^2 + 2x + 5$ .

35. A garden is 90m long and 75m broad. A path 5m wide is to be built outside and around it . Find the area of the path.

36. List five rational numbers between -1 and 0.

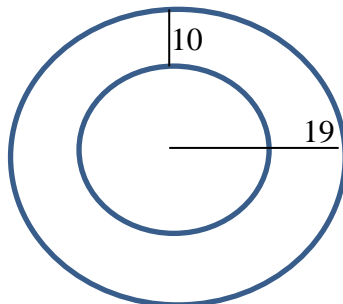
(SECTION – E )(5 x 2 = 10)

37. From a circular card sheet of radius 14cm , two circles of radius 3.5cm and a rectangle of length 3cm and breadth 1cm are removed.



- (a) Find the area of rectangle.
- (b) Find the area of small circle
- (c) Find the area of big circle
- (d) Find the area of the remaining sheet.

38 .



- (a) Find the radius of inner circle
- (b) Find the radius of outer circle
- (c) Find the area of inner circle

(d) Find the circumference of outer circle.