



Pious Mission School, Arwal

“Practice Examination”

Session : 2020-21

Time : 1 Hrs
F.M : 40M

Sub : Maths

Class : X

(Group-A) 1-mark each

- 1) The exponent of 2 in the prime factorisation of 144 is
a) 4 b) 5 c) 6 d) 3
- 2) The LCM of two numbers is 1200 which of the following cannot be their HCF.
a) 600 b) 500 c) 400 d) 200
- 3) The number of decimal places after which the decimal expansion of the rational no. $\frac{23}{2^2 \times 5}$
a) 1 b) 2 c) 3 d) 4
- 4) The HCF of 95 and 152 is
a) 57 b) 1 c) 19 d) 38
- 5) The HCF(26,169)=13 then LCM(26,169)=
a) 26 b) 52 c) 338 d) 4
- 6) The smallest no. by which $\sqrt{27}$ should be multiplied so as to get a rational no. is
a) $\sqrt{27}$ b) $3\sqrt{3}$ c) $\sqrt{3}$ d) 3
- 7) For some integer m, every even integer is of the form
a) m b) m+1 c) 2m d) 2m+1
- 8) n^2-1 is divisible by 8 by if n is
a) an integer b) a natural number c) an odd integer d) an even integer
- 9) For some integer q, every odd integer is to the form
a) q b) q+1 c) 2q d) 2q+1
- 10) The product of a non-zero rational number an an irrational number is
a) always irrational b) always rational c) rational or irrational d) one
- 11) Which of the following is a polynomial ?
a) $\chi^2-5\chi+6\sqrt{\chi}+3$ b) $\chi^{\frac{-3}{2}} - \chi + \chi^{\frac{1}{2}} + 1$ c) $\sqrt{\chi} + \frac{1}{\sqrt{\chi}}$ d) none
- 12) The zeros of polynomials $\chi^2-2\chi-3$ are
a) -3, 1 b) -3, -1 c) 3, -1 d) 3, 1
- 13) The zeros of polynomial $\chi^2 - \sqrt{2}\chi - 12$ are
a) $\sqrt{2}, -\sqrt{2}$ b) $3\sqrt{2}, 2 - \sqrt{2}$ c) $-3\sqrt{2}, 2\sqrt{2}$ d) $3\sqrt{2}, 2\sqrt{2}$
- 14) If two of the zeros of the cubic polynomial $a\chi^3+b\chi^2+c\chi+d$ are each equal to zeros, then third zero is
a) $-d/a$ b) c/a c) $-b/a$ d) b/a
- 15) A quadratic polynomial whose zeros are 5 and -3 is
a) $\chi^2+2\chi-15$ b) $\chi^2-2\chi+15$ c) $\chi^2-2\chi-15$ d) none
- 16) If a pair of linear equations is consistent, then their graph lines will be
a) parallel b) always coincident
c) always intersecting d) intersecting or coincident
- 17) In a pair of linear equations is inconsistent then their graph lines will be
a) parallel b) always coincident
c) always intersecting d) intersecting or coincident

18) If the system of equations $Kx-5y=2$, $6x+2y=7$ has two solutions then $K =$

- a) -10 b) -5 c) -6 d) -15

19) The value of K for which the system of equations $x+2y=5$
 $3x+Ky+15=0$ has no solution

- a) 6 b) -6 c) $\frac{3}{2}$ d) none

20) The value of K for which the system of equations $Kx-y=2$ and $6x-2y=3$ has a unique solution is

- a) = 3 b) $\neq 3$ c) $\neq 0$ d) = 0

(Group-B) 2-marks each

21) Use Euclid's division algorithm to find HCF of 2048 and 960.

22) Find the HCF of 96 and 404 by prime factorisation method. Find their LCM.

23) Solve the linear equations by using elimination method.

$$3x+2y=11$$

$$2x+3y=4$$

(Group-C) 3-marks each

24) Prove that $\sqrt{5}$ is an irrational number.

25) Prove that $5-\sqrt{3}$ is an irrational number.

(Group-D) 4-marks each

26) Find the zeros of polynomial $f(u)=4u^2+8u$ verify the relation between the zero and its coefficients.

27) What must be subtracted from $8x^4+14x^3-2x^2+7x-8$ so that the resulting polynomial is exactly divisible by $4x^2+3x-2$