

DAV PUBLIC SCHOOL, POKHARIPUT-20
PERIODIC ASSESSMENT - III
SUBJECT: MATHEMATICS
CLASS – VIII (SET 01)

Time :1hr 30 mins Max. Marks: 40

General Instruction:

1. this question paper contains 28 questions.
2. All the questions are compulsory.
3. Que no 1 to 20 each question carries 1 mark.
4. Que no 21 to 24 each question carries 2 marks.
5. Que no 25 to 28, each question carries 3 marks.

1. Which of the following statement is not true?
 - i) The degree of the remainder is always less than the degree of the divisor.
 - ii) The degree of a constant polynomial is 1.
 - iii) If polynomial $p(x)$ is a factor of polynomial $f(x)$, then on division of $f(x)$ by $p(x)$ remainder will be zero.
 - iv) $\sqrt{a^3}$ is same as a^6
 - a) Option (ii)
 - b) Only option (iv)
 - c) Both (ii) and (iv)
 - d) Option (i), (ii) and (iii)
2. The difference between the highest and lowest value of the observations in a data is called
 - a) mean
 - b) range
 - c) total frequency
 - d) none of these
3. Which of the following is the probability of an impossible event?
 - a) 0
 - b) 1

- c) between 0 and 1
- d) none of the above

4. A coin is tossed. Which of the following is the probability of getting a head or a tail ?

- a) 0
- b) 1
- c) $1/2$
- d) none of the above .

5. Find the value of k if $(x+7)$ is a factor of $x^2-kx+14$

- a) -5
- b) 5
- c) -9
- d) 9

6. Write the degree of the following:

$$(x^2 + 3x^3 + 7x) - (3x^2 + 5x)$$

- a) 7
- b) 3
- c) 2
- d) 5

7. The exponential form of $\sqrt[7]{7^5}$ is

- a) $7^{\frac{7}{5}}$
- b) 37^5
- c) 49^5
- d) $7^{\frac{5}{7}}$

8. From a pack of 52 cards King and Queen of Spade are removed. Then Rohan is asked to shuffle the rest and to draw a card randomly.

What is the probability of getting a black color face card ?

- a) $4/50$
- b) $4/52$
- c) $10/50$
- d) None of these

9. Evaluate

$$(0.000064)^{5/6}$$

- a) 0.0032
- b) 0.00064

c)0.00032)

d)0.00002

10.Find the value of k for which $(x+3)$ will be a factor of $x^2+kx+15$

a) -3

b) -8

c)8

d) 18

11.A dice is thrown. What is the probability of getting a number greater than 2 and less than 5?

a) $2/36$

b) $2/3$

c) $1/3$

d) None of these

12.Find x if $,2(4^x-4^{x-1}) = 384$

a) 4

b) 3

c) 5

d) None of these

13.One sixth of a number increased by 6 is equal to 4 less than one fourth of that number. Find the number.

a) 180

b) -180

c) 120

d) -120

14.On dividing a polynomial $p(x)$ of degree 10 by a polynomial $f(x)$ of degree 4 we will get a quotient with degree _____.

a)6 (ans)

b)4

c)10

d)5

15.In dividing $a^2x^2-9y^2$ by $ax+3y$ we get :

a) $ax-$

b) $a(x-y)$

c) a

d) none of these

16.A number whose seventh part exceeds its eighth part by 1 is

a)58

- b)56
- c)64
- d) none of these

17. Coefficient of y in the polynomial $y^2 - \frac{y}{3}$ is

- a)-1
- b) 2
- c)-1/3
- d)xy

18. Simplified form of $\frac{(x)^{\frac{7}{2}} \times \sqrt{y}}{(x)^{\frac{5}{2}} \times \sqrt{y^3}}$ is

- a) x^2/y
- b) x^2/y^2
- c) xy
- d) x/y

19. The value of

$$4 \times (0.81)^{-1/2} \times [(0.064)^{\frac{1}{3}} + (0.0625)^{\frac{1}{4}}] \text{ is}$$

- a) 324/100
- b) 4
- c) 9/10
- d) None of these

20. $\sqrt[3]{4 \frac{12}{125}}$ is equal to _____

- a) 512/125
- b) 170/41
- c) 8/5
- d) 23/5

SUBJECTIVE

21. Simplify

$$(5^0 + 6^0 + 7^0 + 8^0)^{1/2}$$

22. Rooplal left one third of his property to his son. One fourth to his daughter and the remain to his wife. If the wife's share was worth rs.32000, then how much money did Rooplal have?

23. Solve for x:

$$\frac{x^2 - (x + 2)(x + 3)}{6x + 1} = \frac{2}{3}$$

24. Spot the error and rectify it.

$$3(7y + 4) = -4(y + 2)$$

$$\Rightarrow 21y + 4 = -4y + 8$$

25. The sum of the digits of a two digit number is 10. The number obtained by interchanging the digit exceeds the original number by 36. Find the new number.

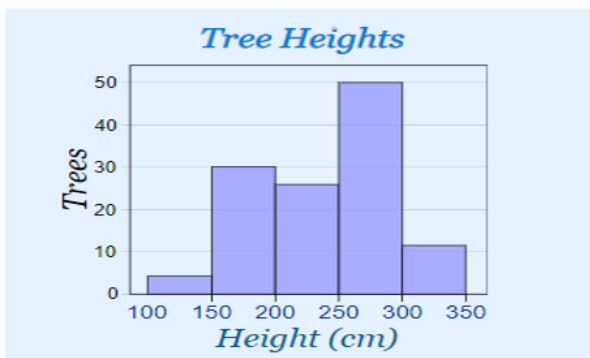
26. Two train Prasanti Express and Tawalkundi Express starts simultaneously from Bangalore and Hyderabad respectively on parallel track to cross each other. The speed of one of them is greater than the other by 5km /hrs. The distance between the two trains after 2 hrs of their start is 30km. If the distance between Bangalore and Hyderabad station is 500km, find the speed of each train?



27. A steamer goes along the stream from Paradip port to Vishakhapatnam port in 9hours. It covers the same distance while travelling against the stream from Visakhapatnam to Pradip port in 10 hours. If the speed of the stream is 1km/h, determine the speed of the steamer in still water.



28. Observe the histogram and answer the following:



28(I) Mention the class interval having the lowest frequency.

28 (II) What is the class size?

28 (III) Determine the class mark of the class interval having the highest frequency.
