St. Xavier's Sr. Sec. School
Delhi-54

Class : 7 | SUMMATIVE ASSESSMENT 2 | Marks: 60

Date: 04.03.2016 | MATHS | Time: $1\frac{1}{2}$ Hours

Note: All the answers should be done on the answer sheet.

1. a) Find the sum of (m +2n –7) and (–8n –m +2) (2)

   b) Subtract (–ab+10a² – 5a) from (–10a – 6a²+8ab) (2)

   c) Simplify 3m² + 6n –6m² – 2n +mn (2)

2. Solve the following equations :

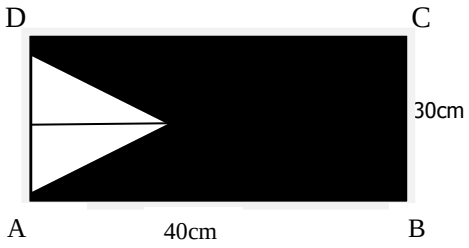
   a) $8x - 3 = 9 - 2x$ b) $-2y + 36 = 32$ c) $\frac{3x}{2} + 1 = \frac{11}{2}$ (2x3)

3. A wire is $(9x - 3)$ metres long. A length of $(5x - 4)$ metres is cut for use. How much wire is left?(2)

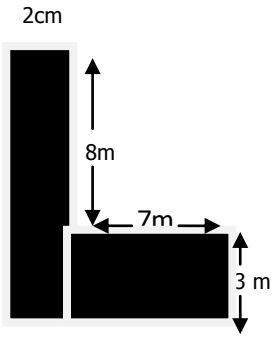
4. Find the product of $2a^2 b$ $(-8a^2bc - 4c + 9a^2b)$ (2)

5. Find the area of the shaded region ($2\frac{1}{2}$x3)

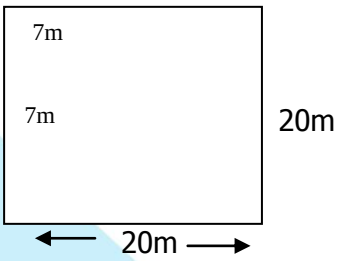
a)



b)



c)



6. Find the sum of $x^3y - x^2 + 7y$, $-10y + 5x^2 - 2x^3y$ and $9x^2 - 4y$ (3)

7. A sum of ☐ 500 is in the form of 5rupee and 10 rupee notes. If the total number of notes is 75, find the number of notes of each type. (3)

8. Solve and check

a) 2(m+7) =3(m-10) b) $\frac{3x-1}{5} - \frac{x}{2} = 3$ ($3\frac{1}{2}$x$3\frac{1}{2}$)

9. The base and height of a triangle are in the ratio 4:5. If the area of the triangle is 250m^2, find the measures of its base and height. ($3\frac{1}{2}$)

10. A verandah 2.5m wide is constructed all around the outside of a room of size 8m by 5m. Find the area of the verandah. Also find the cost of cementing the verandah at the rate of ☐25 per m^2. (4)

11. A wire is in the shape of a rectangle of length 36cm and 19cm. If it is rebent in the shape of a circle, then find its radius. (4)

12. Sneha is 12years older than Reema. After 4years, Sneha's age will be equal to twice the age of Reema. Find their present ages. (4)

13. If A= 4a -2b +c, B= -a -3c -5b and C= 12b -10c +a, find 2A +2B -2C (4)

14. In a circular garden of 50m radius, a pond is constructed in the form of a circle with radiusN 20m. Find the area of the land left out. (4)

Class : 7 SUMMATIVE ASSESSMENT 2
Marks: 30
Date: 04.03.2016 MATHS Time: 30 minutes

Name: _____ Class& Sec. _____ R. No. _____

Note: All the answers should be done on the question paper itself.

I Tick the correct option :

1. The degree of $4x^2y^4 + x^2y^2 + y^5$ is _____
   a. 3 b. 5 c. 6
2. −3 is the root of _____
   a. $2(x + 4) = 14$ b. $-2(x+4) = 14$ c. $2(-x+4) = 14$
3. If the diameter of a circle is 2.1m then the circumference is _____
   a. 66m b. 6.6m c. 6m

4. In the algebraic expression $6-u^2+3t^2$, 6 is a_____.

   a. constant term b. like term c. unlike term

5. $-6m+18m$ is_____

   a. $-12m^2$ b. 12m c. 24m

6. The highest power of the variable in the linear equation is _____

   a. 3 b. 2 c. 1

7. In $\frac{m}{3}+5=7$; m=_____

   a. 16 b. 4 c. 6

8. The numerical coefficient of $-\frac{1}{2}a^2b^2c^2$ is _____

   a. $-\frac{1}{2}$ b. $\frac{1}{2}$ c. 2

9. If the radius of a circle is doubled, then the area becomes _____

   a. 2 times b. 4 times c. 6 times

10. If $\frac{x-1}{x+1}=\frac{7}{9}$, then the value of x is _____

    a. 6 b. 7 c. 8

11. Find s (s^2 – st), if the values for s=2 and t=1 is _____

    a. 8 b. 4 c. 2

12. If the area of a parallelogram is 64 m^2 and its altitude is 8m, the parallelogram is a _____

    a. square b. rhombus c. rectangle

13. Equation for the statement 'A number is twice the other and their sum is 15' _____

    a. $2x=15$ b. $x+2=15$ c. $x+2x=15$

14. a b c ($2ab^2-abc^2$) is _____

    a. $a^2b^3c-a^2bc^3$ b. $2a^2b^3c-a^2b^2c^3$ c. $2a^2b^3-ab$

Cont'd.....2/-

15. $1m^2$ = _____ cm^2.

a. 100 b. 10000 c. 1000

16. If the rate of fencing is ☐50 per metre and the perimeter is 450m then the total cost of fencing is _____

a. ☐22500 b. ☐225 c. ☐ 2250

17. If the product of a number and 6 is equal to 48, then the number is _____

a. 8 b. 42 c. 54

18. The circumference of a circle is 4π, find its radius. r=_____ .

a. 2 b. 8 c. 2π

19. $4xy + 2xz^2 y - xyz - 1$ is a _____

a. Trinomial b. Binomial c. Polynomial

20. The sum of two consecutive numbers is 13. Find the numbers _____

a. 9, 4 b. 6, 7 c. 5, 8

21. If BC= 5cm, CA= 9cm and <BCA = 90°, then the area of a Δ ABC is _____

a. 14cm b. $45cm^2$ c. $22.5\ cm^2$

22. If the base of the parallelogram is 20cm and the area is $160cm^2$, then the height of the parallelogram is _____

a. $8cm^2$ b. $16cm^2$ c. $3200cm^2$

23. Pick out the like terms from ab, $6a^2b$, a^2b^2, $7ba^2$,$6a^2b^3$

a. a^2b^2, ab b. $6a^2b$, $7ba^2$ c. a^2b ,ba^2

24. Perimeter of a triangle is 78cm. Two of its sides measure 15cm and 26cm. Length of the third side is _____

a. 37cm b. 41cm c. 82 cm

25. Subtract $(9x^3 + 4x^2 + 2x - 7)$ from 0 _____

a. $9x^3 + 4x^2 + 2x - 7$ b. 0 c. $-9x^3 - 4x^2 - 2x + 7$

26. Area of a rectangle is 60 cm^2 and the length is 12 cm, find its perimeter _____

a. 17 cm b. 5 cm c. 34 cm

27. The product of 4 x^2y, ($2xyz^2$) and (–5 z^4y) is _____

a. 40 $x^3y^3z^3$ b. – 40 xyz^2 c. $40x^3y^3z^6$

28. If perimeter of a regular hexagon is 126 cm, then its sides are _____

a. 31.5 cm^2 b. 21cm c. $21cm^2$

29. Subtract $-m^2$ from $3m^2$ _____

a. $4m^2$ b. $2m^2$ c. $-2m^2$

30. $x^2 - y^2$ is the same as _____

a. $-y^2 + x^2$ b. $y^2 - x^2$ c. $x^2 + y^2$

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