

T2-Algebra  
Model Question Paper IV  
8th Standard

Maths

Reg.No. : 

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I. Answer all the questions

Time : 01:30:00 Hrs

Total Marks : 35

10 x 1 = 10

Part-A

- 1)  $(a+b)^2 = (a+b) \times \underline{\hspace{2cm}}$   
(a)  $ab$  (b)  $2ab$  (c)  $(a+b)$  (d)  $(a-b)$
- 2)  $(a^2-b^2) = (a-b) \times \underline{\hspace{2cm}}$   
(a)  $(a-b)$  (b)  $(a+b)$  (c)  $a^2+2ab+b^2$  (d)  $a^2-2ab+b^2$
- 3)  $m^2+(c+d)m+cd = \underline{\hspace{2cm}}$   
(a)  $(m+c)^2$  (b)  $(m+c)(m+d)$  (c)  $(m+d)^2$  (d)  $(m+c)(m-d)$
- 4) The coefficient of  $x^4$  in  $-5x^7 + \frac{3}{7}x^4 - 3x^3 + 7x^2 - 1$  is \_\_\_\_\_  
(a) -5 (b) -3 (c)  $3/7$  (d) 7
- 5) The coefficient of  $xy^2$  in  $7x^2 - 14x^2y + 14xy^2 - 5$  is \_\_\_\_\_  
(a) 7 (b) 14 (c) -14 (d) -5
- 6) The degree of the polynomial  $x^2 - 5x^4 + \frac{3}{4}x^7 - 73x + 5$  is \_\_\_\_\_  
(a) 7 (b)  $3/4$  (c) 4 (d) -73
- 7)  $x^2 + y^2 - 2z^2 + 5x - 7$  is a \_\_\_\_\_  
(a) monomial (b) binomial (c) trinomial (d) polynomial
- 8) The factor of  $3a + 21ab$  are  
(a)  $ab, (3+21)$  (b)  $3(a+7b)$  (c)  $3(1+7b)$  (d)  $3ab, (a+b)$
- 9) The factor of  $6x^2 - x - 15$  are  $(2x+3)$  and \_\_\_\_\_  
(a)  $(3x-5)$  (b)  $(3x+5)$  (c)  $(5x-3)$  (d)  $(2x-3)$
- 10) The factor of  $169l^2 - 441m^2$  are  
(a)  $(13l-21m), (13l+21m)$  (b)  $(13l-21m), (13l+21m)$  (c)  $(13l-21m), (13l+21m)$  (d)  $13(l+21m)13(l-21m)$

Part-B

- 11) Factorize the following expressions:  
 $7l^3m^2 - 21lm^2n + 28lm$
- 12) Subtract  $2x^3 + 2y^2 - 6$  from  $3x^2 - 7y^2 + 9$
- 13) Factorize:  $x^2 + 6x + 8$
- 14) Simplify :  $(2a+3b)(5a+4b)$
- 15) Arun is now half as old as his father. Twelve years ago the father's age was three times as old as Arun. Find their present ages.

5 x 2 = 10

Part-C

- 16) Factorize:  
 $121a^2 + 154ab + 49b^2$
- 17) Factorize:  
 $x^2 - 5x + 6$
- 18) Find the product of the following:  
 $(a+b)(a^2 + 2ab + b^2)$
- 19) Work out the following divisions:  
 $5y^3 - 4y^2 + 3y \div (2x)$
- 20) Find out the product:  
 $m, 4m, 3m^2, -6m^3$

5 x 3 = 15

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