This Question Paper contains 20 printed pages.
(Part - A & Part - B)

Sl.No.

12 (E)

(JULY, 2018)

પ્રશ્ન પેપરનો સેટ નંબર જેની સામેનું વર્તુળ OMR શીટમાં ઘટ્ટ કરવાનું રહે છે.
Set No. of Question Paper, circle against which is to be darken in OMR sheet.
01

Part - A : Time : 1 Hour / Marks : 50

Part - B : Time : 2 Hours / Marks : 50

(Part - A)

Time : 1 Hour] ***[Maximum Marks : 50***

Instructions :

1) **There are 50 objective type (M.C.Q.) questions in Part - A and all questions are compulsory.**
2) **The questions are serially numbered from 1 to 50 and each carries 1 mark.**
3) **Read each question carefully, select proper alternative and answer in the O.M.R. sheet.**
4) **The OMR sheet is given for answering the questions. The answer of each question is represented by (A) O, (B) O, (C) O, (D) O. Darken the circle ● of the correct answer with ball-pen.**
5) **Rough work is to be done in the space provided for this purpose in the Test Booklet only.**
6) **Set No. of Question Paper printed on the upper-most right side of the Question Paper is to be written in the column provided in the OMR sheet.**

1) If $a+\sqrt{b}=\sqrt{c}$ where $a \in Q$ and $\sqrt{b}$ and $\sqrt{c}$ are surds, then _____.

(A) $a = 0$ and $b = c$

(B) $a = c$ and $b = 0$

(C) $a = b$ and $b = c$

(D) $a = 0$ and $b = 0$

Rough Work

Rough Work

2) $\sqrt{10+\sqrt{64}} = \sqrt{a+2\sqrt{b}}$ then for a and b _____.

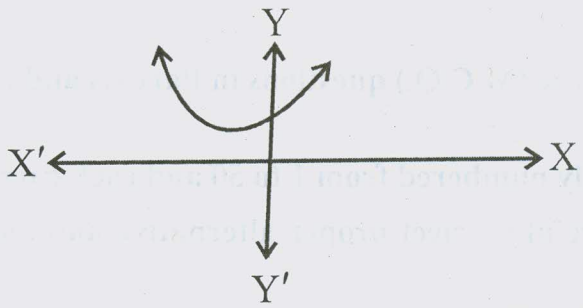
(A) $a = 10$ and $b = 64$

(B) $a = 64$ and $b = 10$

(C) $a = 10$ and $b = 16$

(D) $a = 8$ and $b = 2$

3) The graph of $p(x) = x^2 + 4x + 5$ is drawn below. From this real zeros is/are _____.



(A) 0

(B) 1

(C) 2

(D) 3

4) If α , β and γ are the zeros of cubic polynomial $p(x) = x^3 + 5x^2 + 6x$ then $\alpha\beta\gamma$ = _____.

(A) -7

(B) 7

(C) 6

(D) 0

5) $a = 3, b = 5, c = 7, d = 11$. Then standard cubic polynomial is _____ from given values of a, b, c and d.

(A) $3x^3 + 5x^2 - 7x - 11$

(B) $3x^3 - 5x^2 + 7x + 11$

(C) $3x^3 + 5x^2 - 7x + 11$

(D) $3x^3 + 5x^2 + 7x + 11$

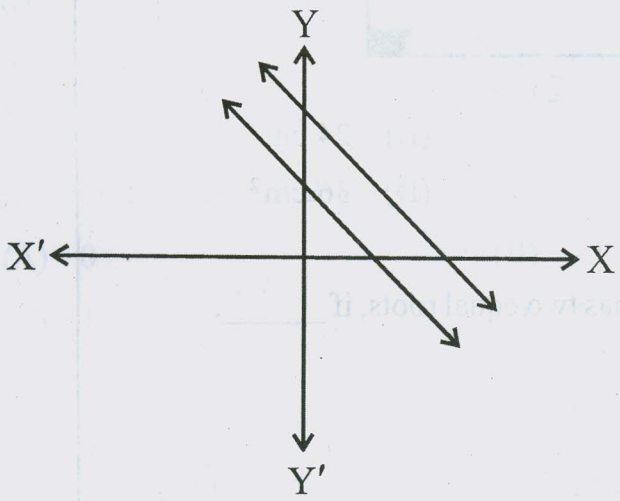
Rough Work

6) If α , β and γ are the zeros of cubic polynomial $p(x)=ax^3+bx^2+cx+d,\ a\neq 0$ then sum of zeros $\alpha+\beta+\gamma$ = _____.

(A) $\frac{c}{a}$ (B) $\frac{-b}{a}$

(C) $\frac{b}{a}$ (D) $\frac{c}{-a}$

7) Two lines are shown in the following graph



From the above graph, what is true for their solution set from the alternatives given below?

(A) Their solution set is infinite set

(B) Number of solutions cannot be known without knowing the mathematical equations of lines

(C) Pair of equations has unique solution

(D) They have no solution

8) Kinjal tells her sister that 3 years ago, the sum of your age and my age was 36 years. Then tell me after 4 years, what will be the sum of your age and my age?

(A) 53 years (B) 39 years

(C) 43 years (D) 50 years