Pre Nurture and Career Foundation Division

CLASS - X

## ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	3	3	4	1	2	4	3	3	1	3
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	2	2	1	3	4	4	3	4	2	3
Que.	21	22	23	24	25	26	27	28	29	30
Ans.	3	3	1	2	2	3	2	2	3	1
Que.	31	32	33	34	35	36	37	38	39	40
Ans.	3	3	3	4	1	4	2	4	3	3
Que.	41	42	43	44	45	46	47	48	49	50
Ans.	3	3		1	1	3	3	4	4	3
Que.	51	52	53	54	55	56	57	58	59	60
Ans.	3	1	2	1	3	3	4	2	1	2
Que.	61	62	63	64	65	66	67	68	69	70
Ans.	4	1	3	4	3	2	3	2	3	2
Que.	71	72	73	74	75	76	77	78	79	80
Ans.	3	1	3	4	3	1	1	2	4	2
Que.	81	82	83	84	85	86	87	88	89	90
Ans.	1	1	3	1	2	4	4	3	2	3
Que.	91	92	93	94	95	96	97	98	99	100
Ans.	4	3	4	1	2	3	2	3	1	2
Que.	101	102	103	104	105	106	107	108	109	110
Ans.	1	4	3	4	4	4	2	1	2	2
Que.	111	112	113	114	115	116	117	118	119	120
Ans.	1	4	3	4	2	4	3	2	3	4

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HINT – SHEET

26. Bases can react with Zn and Al to form H_2 gas.

28. The reaction involved here is :

$Ag + H_2S \rightarrow Ag_2S + H_2$

Black dots

31. $Fe + H_2O$ (steam) $\rightarrow Fe_3O_4 + H_2$

33. Al_2O_3 is basic in nature.

34. X is Ne

Y is Cl

Z is Mg

36. $Zn + HCl \longrightarrow ZnCl_2 + H_2$

Here Zinc surface becomes dull due to the formation of $ZnCl_2$.

Hydrogen gas is produced with a pop sound. The solution also becomes colorless.

37. $Fe + CuSO_4 \longrightarrow FeSO_4 + Cu$

Here Fe undergoes oxidation and Cu from $CuSO_4$ undergoes reduction.

38. $Pb(NO_3)_2 \rightarrow PbO + NO_2 + O_2$

41. $Zn + NaOH \text{-----}> Na_2ZnO_2 + H_2$

44. Cinnabar is HgS

46. Mass of Br = (mass of Cl + mass of I)/2

= (35.5 + 127)/2 = 81.25

47. The element with electronic configuration 2,8,5 is P and it is chemically similar with N (7).

50. Here CH_3COOH is an acid, and phenolphthalein is an indicator which remains colourless in acidic medium.

101. Let the age of the father be x, then the age of the son would be (56 – x). After four years, the age of father would be (x + 4) and that of son would be (56 – x + 4) years. Now, from the information given in the question, we have :

(x + 4) = 3(56 – x + 4)

$\Rightarrow$ x + 4 = 168 – 3x + 12 $\Rightarrow$ 4x = 168 + 12 – 4 = 176 $\Rightarrow$ x = 44 years

Therefore, the age of father and son is 44 years and 12 years, respectively.

Hence, the correct answer is (1).

109. N R 3 1 & S 5 M I 9 P 6 # B 2 A $ K O 8 Z @ C 4 ® U λ 7 Y H

There is only one such symbol in the given arrangement

110. We shall find the day on 1st April, 2001.

1st April, 2001 = (2000 years + Period from 1.1.2001 to 1.4.2001)

Odd days in 1600 years = 0

Odd days in 400 years = 0

Jan. Feb. March April

(31 + 28 + 31 + 1) = 91 days 0 odd days.

Total number of odd days = (0 + 0 + 0) = 0

On 1st April, 2001 it was Sunday.

In April, 2001 Wednesday falls on 4th, 11th, 18th and 25th.

111. 55 minutes spaces are covered in 60 minutes

60 minutes spaces are covered in $\left(\dfrac{60}{55} \times 60\right)_{min}$

$= 65\dfrac{5}{11}$ minutes

Loss in 64 minutes $= \left(65\dfrac{5}{11} - 64\right) = \dfrac{16}{11}$ minutes

Loss in 24 hrs $= \left(\dfrac{16}{11} \times \dfrac{1}{64} \times 24 \times 60\right)_{min} = 32\dfrac{8}{11}$ minutes

112. The main triangle shown is in the given figure and this the total no. of triangle is 15. remaining triangle we can find out in the drawing the triangle in the image.
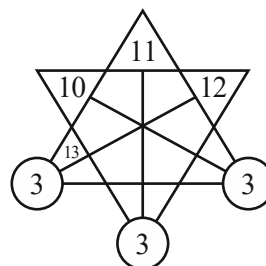
113. = 20 ÷ 2 × 10 – 4 + 6 > 100

= 10 × 10 - 4 + 6 > 100

= 106 – 4 > 100

= 102 > 100.

114. $(1)^2 + (5)^2 + (4)^2 + (3)^2 = 51 \times 10 = 510$

and $(3)^2 + (4)^2 + (6)^2 + (2)^2 = 65 \times 10 = 650$

Similarly $(0)^2 + (1)^2 + (2)^2 + (8)^2 = 69 \times 10 = 690$

115.

116. The circles are converted to hexagons and semicircles are converged to half-hexagons.

118. From figures X and Y, we conclude that dot, circle, square and cross lie adjacent to the triangle. Therefore, the arrow must lie opposite the triangle. From figures X and Z, we conclude that dot, triangle, arrow and cross lie adjacent to the circle. Therefore, the square must lie opposite the circle. Thus, the arrow lies opposite the triangle, the square lies opposite the circle and consequently, the cross lies opposite the dot.

As analysed above, the symbol opposite the arrow is the triangle.

119.
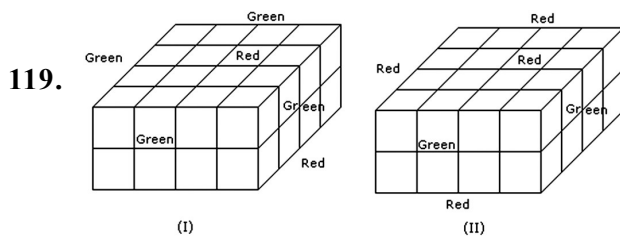
24 from (I) and 14 from (II)

120. Clearly, we have :
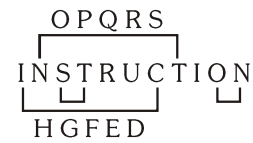
As depicted above, C and I have five letters between them in the given word as well as in English alphabet; N and T again have five letters between them and each of the pairs (S and T) and (N and O) have no letter between them.

Thus, there are four such pairs. Hence, the answer is (4).