

NIACL/DCCB Preliminary Grand Test – NIACL/DCCB-190113

ANSWER KEY

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

HINTS & SOLUTIONS

1. (5) All (A), (B) and (C)
2. (5) To bring forth the problems associated with the India's development and to suggest measure to counter them
3. (2) All (A), (B) and (C)
4. (3) Only (C)
5. (4) Only (A) and (C)
6. (4) By allotting proper funds for research which can be predict the outcome of such calamities and thus design relief measures
7. (4) The meaning of the word **Surveillance (Noun)** as used in the passage is : the act of carefully watching a person suspected of a crime; observation.
Look at the sentence :
The police are keeping the suspects under constant surveillance.
Hence, the words **surveillance** and **observation** are synonymous.

8. (3) The meaning of the word **Prerequisite (Noun)** as used in the passage is : something that must exist or happen be-fore something else can hap-pen or be done; precondition.

Look at the sentence : A degree is an essential prerequisite for employment at this level.

Hence, the words **prerequisite** and **necessity** are synonymous.

9. (2) The meaning of the word **Differential (Adjective)** as used in the passage is : showing or depending on a difference; no equal.

The word **Homogeneous (Adjective)** means : consisting of things or people that are all the same or all of the same type. Hence, the words **differential** and **homogeneous** are antonymous.

10. (4) The meaning of the word **Vigorously (Adverb)** as used in the passage is : actively; energetically; strongly.

Hence, the words **vigorously** and **softly** are antonymous.

11. (3) learnt, figure
12. (2) experiment, vouches
13. (5) legitimate, dominated
14. (1) act, increase
15. (4) galore, celebrate
16. (4)
17. (4)
18. (5)
19. (1)
20. (3)

21. (1) Here, **weight to** should be used.

22. (2) Replace **would had** by **would have**.

23. (4) Here, Simple Present i.e. you achieve nothing-should be used.

24. (3) It is improper to use 'to' before 'let'.

25. (3) Here, to + V₁ i.e. **to define** should be used.

26. (4) relationship

27. (3) Rising

28. (4) changes

29. (4) pace

30. (1) forecast

$$31. (3) \quad ? = \frac{394 \times 57}{100} - \frac{996 \times 2.5}{100}$$

$$\approx \frac{400 \times 57}{100} - \frac{1000 \times 2.5}{100}$$

$$\approx 228 - 25$$

$$\approx 203$$

$$\therefore \approx \text{Required answer} = 200$$

32. (4) ? = 97 x 10 + 1 = 971

$$\therefore \text{Required answer} = 940$$

33. (4) $? \approx \frac{3}{5} \times \frac{1125}{1228} \times 7 = 4$

34. (2) $? \approx \sqrt{\frac{339 \times 25}{30}} \approx 15$

35. (5) $? = \frac{638 + 9709 - 216}{26} = 390$

36. (1) If the length of the bus be x metre, then

Required ratio = $\frac{x}{4} : \frac{x}{18} = 9 : 2$

37. (3) Amount paid
= Rs. $(15 \times 5 + 4 \times 50 + 6 \times 75 + 5 \times 20)$
= Rs. $(75 + 200 + 450 + 100) = 825$,

38. (3) Radius of larger circle = $2 \times \sqrt{196} = 28$ cm
Circumference of smaller circle = $\left(\frac{3}{7} \times 28\right)$ cm = 12

cm
Circumference of smaller circle = $2\pi r = 2\pi \times 12 = 24\pi$ cm

39. (1) Average percentage of marks obtained
 $= \frac{52 + 64 + 74}{3} = \frac{190}{3} \%$

\therefore Average marks obtained = $\frac{190}{3} \%$ of 750
 $= \frac{190}{3} \times \frac{750}{100} = 475$

40. (2) $3x + 4x + 6x + 7x = 360^\circ$
 $\Rightarrow 20x = 360^\circ$
 $\Rightarrow x = 18^\circ$
 \therefore smaller angle of the parallelogram
 $= \frac{6x}{2} = 3x = 54^\circ$
 \therefore Adjacent angle of parallelogram
 $= 180^\circ - 54^\circ = 126^\circ$

41. (3) The difference was minimum in the year 2007.
Difference = $32438 - 29129 = 3309$

42. (1) Number of candidates passed from Chennai
Year 2005 $\Rightarrow \frac{55492 \times 13}{100} = 7214$
Year 2007 $\Rightarrow \frac{58492 \times 14}{100} = 8189$

43. (4) Number of candidates passed from Delhi in 2002 and 2006
 $= \frac{58248 \times 28}{100} + \frac{59216 \times 20}{100}$
 $= 16309 + 11843$
 $= 28152 = 28150$

44. (2) Required number of passed candidates
 $= \frac{71253 \times 19}{100} = 13540$

45. (5) Required difference

$\frac{50248 \times 21}{100} - \frac{51124 \times 17}{100}$
 $= 10551 - 8691 = 1860$

46. (2) The no. of adult males in city B
 $= \frac{131857}{11} \times 7 = 83909$.

The no. of adult males in city C
 $= \frac{116536}{8} \times 5 = 72835$

The difference between the total no. of adult males of city B and C = $83909 - 72835 = 11074$

47. (1) The no. of adult males in city A
 $= 105623 \times \frac{5}{7} = 75445$

The no. of adult females in city C
 $= 100249 \times \frac{11}{17} = 64867$

Total no. of adults in city A
 $= 75445 + 64867 = 140312$.

48. (4) The no. of minor males in city F
 $= 180396 \times \frac{5}{18} = 50110$

The no. of minor females in city F
 $= 183296 \times \frac{9}{16} = 103104$

The required percentage
 $= \frac{50110}{103104} \times 100 = 48.6\%$

49. (5) The no. of adult males in city D
 $= 137202 \times \frac{8}{13} = 84432$

The no. of adult females in city E
 $= 161896 \times \frac{9}{14} = 104076$

The difference between total no. of males in city D and adult females of city E
 $= 104076 - 84432 = 19644$.

50. (3) The no. of minor females in city A
 $= 100249 \times \frac{6}{17} = 35382$

The no. of minor females in city B
 $= 115110 \times \frac{4}{15} = 30696$

The required percentage
 $= \frac{35382 - 30696}{30696} = 15.2\% \approx 15\%$

51. (4) The pattern of the number series is:
 $325 - 1 \times 11 = 314$
 $314 - 2 \times 11 = 292$

292 - 3 x 11 = 259

259-4 x 11 =215

215 - 5 x 11 = 160

52. (2) The pattern of the number series is:

45x1 + 1 = 46

46 x 1.5+1=70

70 x 2 + 1 = 141

141 x 2.5 + 1

= 352.5 + 1 = 353.51

53. (3) The pattern of the number series is:

620 + 1 x 12 = 632

632 - 2 x 12 = 608

608+ 3 x 12=644

644 - 4 + 12 = 596

596 + 5 x 12= 656

54. (5) The pattern of the number series is:

15 x 2 -1 x 5=25

25 x 2 -2 x 5 =40

40 x 2 -3 x 5 =65

65 x 2 - 4 x 5 = 110

110 x 2 - 5 x 5=195

55. (5) The pattern of the number series is:

120 x 2.5 + 20 = 320

320 x 2.5 + 20 = 820

820 x 2.5 + 20 = 2070

2070 x 2.5 + 20 = 5195

56 – 60. Rural area

Public sector

banks = 450 banks

Private banks = 300

$$= \frac{15000 \times 12}{100} = 1800$$

Public sector banks in rural and urban areas = 3600

Public and Private banks in urban area =

$$\frac{15000 \times 15}{100} = 2250$$

Public and Private banks in rural area = 600

In experienced candidates = 15000 - 12750 = 2250

56. (2) Required number of candidates = 450 + 300 + 600

+ 3600 = 4950

57. (4) Required number of candidates = 450 + 3750 +

3600 + 2250 + 600 = 10650

58. (2) Required ratio =450: 300 =3 :2

59. (3) Required number of candidates = 1800 + 2250 =

4050

60. (5) Required percentage $\frac{2250}{10650} \times 100 = 21.12\%$

61. (1) Amount = $P \left(1 + \frac{R}{100} \right)^T$

$\Rightarrow 5800 + 594.5$

$$5800 \left(1 + \frac{R}{100} \right)^2$$

$$\Rightarrow \frac{63945}{58000} = \left(1 + \frac{R}{100} \right)^2$$

$$\Rightarrow \frac{441}{400} = \left(1 + \frac{R}{100} \right)^2$$

$$\Rightarrow \left(\frac{21}{20} \right)^2 = \left(1 + \frac{R}{100} \right)^2$$

$$\Rightarrow 1 + \frac{R}{100} = \frac{21}{20}$$

$$\Rightarrow R = \frac{1}{20} \times 100 = 5\% \text{ per annum}$$

62. (3) Quicker approach

Let the original fraction be $\frac{x}{y}$

$$\therefore \frac{x \times 250}{y \times 450} = \frac{25}{51}$$

$$\Rightarrow \frac{x}{y} = \frac{25}{51} \times \frac{450}{250} = \frac{15}{17}$$

63. (4) The word BANKING consists of 7 letters in which 'N' comes twice.

$$\therefore \text{Number of arrangements} = \frac{7!}{2!}$$

$$= \frac{7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1}{2 \times 1} = 2520$$

64. (2) Quicker approach

Gain per cent

$$= \frac{7 \times 6 \times 348000 - 250000}{250000} \times 100 = 39.2\%$$

65. (5) Quicker approach

If the number of parrots in the forest be x,

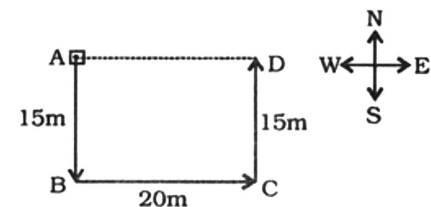
then number of tigers = 858 - x

$$\therefore x \times 2 + (858 - x) \times 4 = 1746$$

$$\Rightarrow 2x = 3432 - 1746 = 1686$$

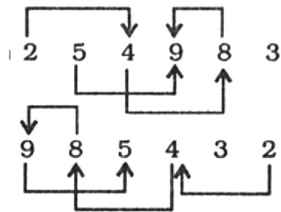
$$\Rightarrow x = \frac{1686}{2} = 843$$

66. (2)

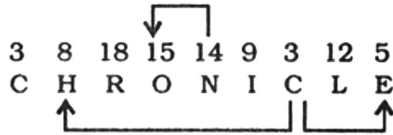


Sushi is 20 metres towards East from the starting point.

67. (5)



68. (4)



69. (3)

$$20 - 16 + 4 \times 3 \div 2 = ?$$

$$\Rightarrow ? = 20 + 16 \div 4 - 3 \times 2$$

$$\Rightarrow ? = 20 + 4 - 4 - 6 = 18$$

70. (4)

Maternal grandfather's only child means mother of Sudhir. Therefore, the boy in the photograph is either Sudhir or his brother.

71 – 75. After careful analysis of the Input and various steps of rearrangement it is evident that in each step one number or word is rearranged. These two steps are continued alternately till all the words get rearranged in alphabetical order and all the numbers get rearranged in ascending order.

71. (3)

Step II: bend 15 will care 46 53 29 then
 Step III: bend 15 care will 46 53 29 then
 Step IV: bend 15 care 29 will 46 53 then
 Step V: bend 15 care 29 then will 46 53
 Step VI: bend 15 care 29 then 46 will 53

72. (5)

Input: land 62 clear over 41 37 again 56
 Step I: again land 62 clear over 41 37 56
 Step II: again 37 land 62 clear over 41 56
 Step III: again 37 clear land 62 over 41 56
 Step IV: again 37 clear 41 land 62 over 56
 Step V: again 37 clear 41 land 56 62 over
 Step VI: again 37 clear 41 land 56 over 62
 Step V is the last but one step.

73. (4)

Step II: desk 12 year victor 86 71 store 65
 Step III: desk 12 store year victor 86 71 65
 Step IV: desk 12 store 65 year victor 86 71
 Step V: desk 12 store 65 victor year 86 71
 Step VI: desk 12 store 65 victor 71 year 86

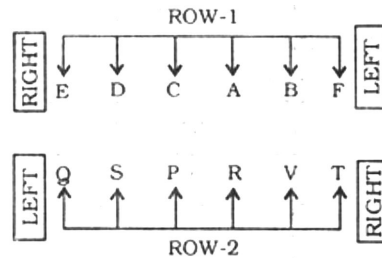
74. (1)

Input: earn 39 23 48 station 19 begin day
 Step I: begin earn 39 23 48 station 19 day
 Step II: begin 19 earn 39 23 48 station day
 Step III: begin 19 day earn 39 23 48 station
 Step IV: begin 19 day 23 earn 39 48 station
 Step V: begin 19 day 23 earn 39 station 48

75. (4)

It is not possible to determine the Input from any given step.

76–80.



76. (2)

A faces R. D sits second to the right of A.

77. (1)

B sits second to the left of C.
 A sits to the immediate right of B
 V faces B

78. (3)

A and F are immediate neighbours of B
 V faces B. R and T are immediate neighbours of V.

79. (1)

C faces P.

80. (4)

V sits exactly between T and R.
 Except C, all others are seated at extreme ends of the lines.

81–85.

Floor Number	Person	Cartoon Character
7	O	Flinstone
6	S	Tweety
5	Q	Chipmunk
4	N	Popeye
3	M	Scooby Doo
2	R	Simpson
1	P	Jetson

81. (3)

Four persons — Q, N, M and R — live between the floors of S and P.

82. (5)

All the statements are true.

83. (1)

N lives on the floor immediately above the floor on which M lives.

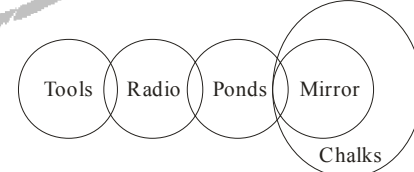
84. (4)

Q lives exactly between the floor

85. (2)

P likes cartoon character Jetson

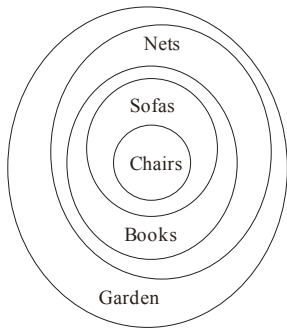
86. (3)



I. × II. ✓ III. × IV. ×

Only (II) follows.

87. (4)



I. ✓ II. ✓ III. ✓ IV. ✓

All conclusions follows.

88. (4) The statement "Gastro-intestinal diseases are water-borne diseases" substantiates the facts stated in the statement.
89. (2) Statement (B) may be a possible consequence of the facts stated in the statement.
90. (2) The statement "Many people who consume ripe mangoes regularly were found to be suffering from hypertension" contradicts the findings reported in the statement.

91–92.

% ⇒ <	\$ ⇒ >	@ ⇒ ≤
* ⇒ ≥	# ⇒ =	

91. (5) $H \delta J \Rightarrow H > J$
 $J \# N \Rightarrow J = N$
 $N @ R \Rightarrow N \leq R$
 $R \delta W \Rightarrow R > W$

Therefore, $H > J = N \leq R > W$

Conclusions

- I. $W \% N \Rightarrow W < N$: Not True
 II. $W \% H \Rightarrow W < H$: Not True
 III. $R \# J \Rightarrow R = J$: Not True
 IV. $R \delta J \Rightarrow R > J$: Not True

R is either greater or equal to J. Therefore, either III or IV is true.

92. (1) $B @ D \Rightarrow B \leq D$
 $D \delta F \Rightarrow D > F$

$F \% M \Rightarrow F < M$
 $M \star N \Rightarrow M \geq N$

Therefore, $B \leq D > F < M \geq N$

Conclusions

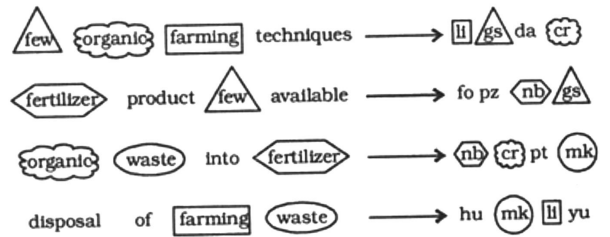
- I. $B \% F \Rightarrow B < F$: Not True
 II. $M \delta D \Rightarrow M > D$: Not True
 III. $N \% F \Rightarrow N < F$: Not True
 IV. $D \delta N \Rightarrow D > N$: Not True

93. (5) Clearly both the assumptions are implicit in the statement.

94. (5) Clearly both the assumptions are implicit in the statement.

95. (4) None of the assumptions is implicit in the statement.

96–100.



96. (5) few ⇒ gs
 waste ⇒ mk
97. (2) organic ⇒ cr
98. (3) yu ⇒ disposal/of
99. (4) waste ⇒ mk
 techniques ⇒ da
 The code for Management' may be 'ax'.
 Therefore,
 farming ⇒ li
 fertilizer ⇒ nb
 management ⇒ ax
100. (1) available ⇒ fo/pz

