# NIACL/DCCB Preliminary Grand Test –NIACL/DCCB-190109

## ANSWER KEY

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

## HINTS & SOLUTIONS

1. (3)
2. (4)
3. (1)
4. (3)
5. (5)
6. (3)
7. (1) **Offshoring (Noun)** = the practice of a company in one country arranging for people in another country to do work for it.
8. (2) **Acute (Adjective)** = very serious or severe.
   **Look at the sentence:**
   There is an acute shortage of water.
9. (3) **Redundancy (Noun)** = the situation when somebody has to leave their Job because there is no more work available for them.
   **Look at the sentences :**
   Thousands of factory workers are facing redundancy.
   There is no shortage of = there are plenty of) things to do in the town.
10. (4) **Generate (Verb)** = to produce or create something.
    **Destroy (Verb)** = to damage something badly that it no longer exists.
    **Look at the sentence :**
    We need someone to generate new ideas.
    They have completely destroyed all the evidence.
11. (4) his commitment to
12. (1) which have led to
13. (3) so scarce that
14. (2) If you are fortunate
15. (5) No correction required
16. (4) D
17. (2) B
18. (1) A
19. (5) E
20. (3) C
21. (1) **In order to do something** = with the purpose or intention of doing or achieving something.
    **Look at the sentences :**
    She arrived early in order to get a good seat.
    Hence, In order to take their…… should be used here.
    Police is generally used in Plural.
22. (2) Here, the commission (singular) has found……should be used here.
    Find $\Rightarrow$ found (Past) $\Rightarrow$ found (Past participle)
    Found $\Rightarrow$ to start something; establish.
    Found $\Rightarrow$ founded (Past) $\Rightarrow$ founded (Past participle).
23. (1 ) The event relates to the present and has effect on present. Hence, Present Perfect i.e., Social media has disclosed that ……..should be used here.
24. (3) Here, For one this intangible sector has suddenly (Adverb) been witness (Noun)……should be used. Look at the structure of the sentence.
25. (4) In Passive Voice, $V_3$ i.e., default encouraged to put their……should be used here.
26. (4) perfected
27. (3) modifications
28. (1) designed
29. (2) demands
30. (3) vogue
31. (5) The given number series is based on the following pattern:
    487.5 – 357.5 = 130
    357.5 – 247.5 = 110
    247.5 – 157.5 = 90
    157.5 – 87.5 = 70
    87.5 – 37.5 = 50 $\neq$ $\boxed{40}$
    37.5 – 7.5 = 30
    Clearly, 47.5 is the wrong number. It should be replaced by 37.5.
32. (3) The given number series is based on the following pattern
    13 + 3 =16
    16 + 5 = 21
    21 + 7 = 28 $\neq$ $\boxed{27}$
    28 + 11 = 39
    39 + 13 = 52
    52 + 17 = 69

Clearly, 27 is the wrong number. It should be replaced by 28.

33. (3) The given number series is based on the following pattern :
1500 + 81 = 1581
1581 + 83 = 1664
1664 + 85 = 1749
1749 + 87 = $1836 \neq \boxed{1833}$
1836 + 89 = 1925
1925 + 91 = 2016
Clearly, 1833 is the wrong number. It should be replaced by 1836.

34. (2) The given number series is based on the following pattern :
66 + 25 = 91
91 + 29 = 120
120 + 33 = 153
153 + 37 = 190
190 + 41 = $231 \neq \boxed{233}$
231 + 45 = 276
Clearly, 233 is the wrong number. It should be replaced by 231.

35. (1) The given number series is based on the following pattern :
$11 \times 11 \times 11 = 1331$
$13 \times 13 \times 13 = 2197$
$15 \times 15 \times 15 = 3375$
$17 \times 17 \times 17 = 4913 \neq \boxed{4914}$
$19 \times 19 \times 19 = 6859$
Clearly, 4914 is the wrong number. It should be replaced by 4913.

36. (4) From statement A,
A number divisible by 2 is an even number.
2 + 3 = 5 (odd number)
4 + 9 = 13 (odd number)

37. (1) From statement A,
Let the number be x.
$\Rightarrow \frac{x}{2} - \frac{x}{3} = 27 \Rightarrow \frac{3x - 2x}{6} = 27$
$\Rightarrow x = 27 \times 6 = 162$
Statement B is superfluous.

38. (3) From both statements,
T : S = 6 : 5
T : D = 3 : 2 = 6 : 4
$\therefore$ T : S : D = 6 : 5 : 4
Let the present ages of Danish and Shivay be 4x and 5x years respectively.
$\therefore \frac{4x+6}{5x+6} = \frac{6}{7}$
$\Rightarrow 30x + 36 = 28x + 42$
$\Rightarrow 2x = 6 \quad \Rightarrow x = 3$
Hence, the age of Shivay can be determined.

39. (2) From statement B,

| Men | Days |
|---|---|
| 9 ↑ | 27 |
| 15 | x ↓ |

$\Rightarrow 15 : 9 = 27 : x$
$\Rightarrow 15 \times x = 9 \times 27$
$\Rightarrow x = \frac{9 \times 27}{15} = \frac{81}{5}$ days

40. (5) From statement A,
A + E = 64500 .
From statement B,
B + F = 52600
$\therefore$ C + D = (A + B + C + D + E + F) - (A + B + E + F)
Hence, the age of C cannot be determined.

41. (1) Required average
$= \frac{1}{6}(109.8 + 97.5 + 97.8 + 105.8 + 44.5 + 43.5)$ crores
$= \frac{498.9}{6} = 83.15$ crores

42. (2) Required average = $\frac{1}{6}$ (38.2 + 88.5 + 57.5 + 97.8 + 112.9 + 108.5) crores
$= \frac{503.4}{6} = 83.9$ crores

43. (3) Total number of mobile phone sold :
Year 2007 $\Rightarrow$ 571.8 crores
Years 2011 $\Rightarrow$ 266.5 crores
Difference = 571.8 - 266.5 = 305.3 crores

44. (4) Required percent = $\frac{109.9 - 104.5}{109.9} \times 100$
$= \frac{5.4 \times 100}{109.9} = 5\%$

45. (1) Required ratio = 57.5 : 78.5 = 115 : 157

46. (5) Number of male employees in IT department
$= \frac{2040 \times 20}{100} = 408$
Number of promoted male employees in IT department
$= \frac{1}{2}\left(1200 \times \frac{26}{100}\right) = 156$
$\therefore$ Required percentage $= \frac{156}{408} \times 100$

47. (3) Number of female employees in production department
$= \left(3600 \times \frac{35}{100} - \frac{2040 \times 50}{100}\right)$
= 1260 - 1020 = 240
Number of female employees in marketing department
$= \left(\frac{3600 \times 18}{100} - \frac{2040 \times 15}{100}\right)$
= 648 - 306 = 342
$\therefore$ Required number of females = 240 + 342 = 582

48. (1) Number of female employees in accounts department
$= \frac{3600 \times 20}{100} - \frac{2040 \times 5}{100}$
= 720 - 102 = 618

49. (4) Required percentage $= \frac{1200}{3600} \times 100 = 33\%$

50. (2) Total number of employees in HR department

$3600 \times \frac{12}{100} = 432$

Number of promoted employees in HR department

$= 1200 \times \frac{11}{100} = 132$

Required percentage

$= \frac{132}{432} \times 100 = 30.56$

51. (3) Length of rectangle = x cm (let)
Length = (x + 5) cm. According to question,
$\Rightarrow$ (x + 5) (x) = (x + 5 - 3) (x+ 2)
$\Rightarrow x^2 + 5x = (x+2)^2 = x^2 + 4x + 4$
$\Rightarrow$ 5x - 4x = 4
$\Rightarrow$ x = 4
$\therefore$ Length of rectangle
= 4 + 5 = 9 cm.
$\therefore$ Perimeter of rectangle
= 2(9 + 4) = 26 cm.

52. (1) A : B : C
= 12 × 5 : 12 × 7 : 6 × 7
= 10 : 14 : 7

53. (3) 5 women = 3 men
$\therefore$ 35 women = $\frac{3}{5} \times 35$ = 21 men
$\therefore M_1 D_1 T_1 = M_2 D_2 T_2$
$\Rightarrow 20 \times 27 \times 7 = 21 \times 6 \times D_2$
$\Rightarrow D_2 = \frac{20 \times 27 \times 7}{21 \times 6}$ = 30 days

54. (1) Number of students in schools A, B and C respectively = 3x, 5x and 7x
$\therefore$ Required ratio after respective increases
$\left(\frac{3x \times 115}{100}\right) : \left(\frac{5x \times 120}{100}\right) : \left(\frac{7x \times 125}{100}\right) =$
$= (3 \times 15) : (5 \times 120) : (7 \times 125)$
= 69 : 120 : 175

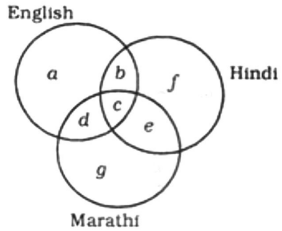
55. (2) Rate downstream = $\frac{20}{2}$ = 10 kmph

Rate upstream = $\frac{20}{4}$ = 5 kmph

Speed of boat in still water $= \frac{1}{2}$ (10 + 5)

$= \frac{15}{2}$ = 7.5 kmph

**56-60.**




According to the question,
a = 650; f = 550; g = 450; c = 100;
b + c = 200; c + e = 400
c + d = 300
$\therefore$ b = 100, e = 300 and d = 200

56. (3) Required difference = 300 - 200 = 100

57. (5) Number of member who read at least two newspapers
= 200 + 400 + 300 + 100 = 1000

58. (3) Number of members reading Hindi newspaper = b + c + e + f
= 100 + 100 + 300 + 550 = 1050

59. (2) Number of members reading only one newspaper = a + f + g
= 650 + 550 + 450 = 1650

60. (5) Number of newspaper readers = a + b + c + d + e + f + g
650 + 100 + 100 + 200 + 300 + 550 + 450 = 2350
$\therefore$ Number of members reading no newspaper
= 2800 - 2350 = 450

61. (2) 63251 × 82 = ? × 42105
$\Rightarrow ? = \frac{63251 \times 82}{42105} = 123$

62. (4) $? = \sqrt{84111} = 290$

63. (1) $? = (54.78)^2 = (55)^2 = 3025$
$\therefore$ Approximate answer = 3000

64. (5) ? = (7171+ 3854 + 1195) ÷ (892 + 214 + 543) = 12220 ÷ 1649 = 7

65. (3) $? = \left(\frac{816 \times 562}{100}\right) + 1449$ = 4586 + 1449 = 6035

66. (3) D ÷ N $\Rightarrow$ D is sister of N.
N – K $\Rightarrow$ N is mother of K.
Therefore, D is maternal aunt of K.
D ÷ N $\Rightarrow$ D is sister of N.
N + K $\Rightarrow$ N is father of K.
Therefore, D is paternal aunt of K.
D × N $\Rightarrow$ D is brother of N.
N – K $\Rightarrow$ N is mother of K.
Therefore, D is maternal uncle of K.

67. (2) M × T $\Rightarrow$ M is brother of T.
T + R $\Rightarrow$ T is father of R
Therefore, M is uncle of R.
R ÷ J = R is sister of J.
J + M J is father of M.
M × T = M is brother of T.
Therefore, M is nephew of R

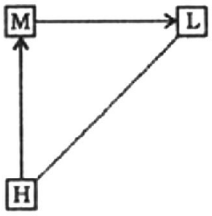
68. (1) R ≥ U = N ≥ S
A > N ≥ D
R ≥ U = N ≥ D
R ≥ U = N < A
D ≤ N ≥ S
Option (1), R ≥ D : True
Option (2), U > A : Not True
Option (3), D < S : Not True
Option (4), A < R : Not True
Option (5), U < D : Not True

69. (1) Obviously, option (1) may be reason for providing the Best Restaurant of the City Award to a newbie.

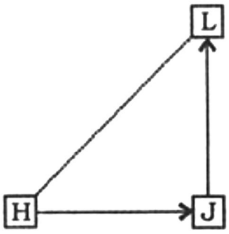
70. (4) From both the statements.
walk for health → he pa ta
morning walk improves health → pa ra ta ko
The code for 'health' may be 'pa' or 'ta'.

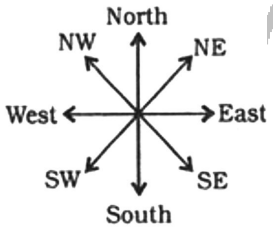
71. (4) From statement I
The gender of Ravindra is not clear.
Ravindra may be mother or maternal uncle of Shubhada.
From statement II
Shubhada may be daughter of Ravindra.

72. (3) From statement I

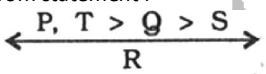



From statement II

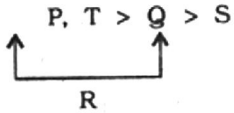



73. (5) From statement I




From statement II
Anyone of them except R boarded the train in the last.
From both the statements




74.(5) From both the statements Total number of children in the group = 10 + 20 - 1 = 29

**75 — 79.** (i) P © Q $\Rightarrow$ P $\geq$ Q
(ii) $P\%Q \Rightarrow P \leq Q$
(iii) $P@Q \Rightarrow P = Q$
(iv) $P\$Q \Rightarrow P < Q$
(v) $P\delta Q \Rightarrow P > Q$

75. (4) H © T $\Rightarrow$ H $\geq$ T
T % M $\Rightarrow$ T $\leq$ M
M δ F $\Rightarrow$ M > F
Therefore, H $\geq$ T $\leq$ M > F
**Conclusions:**
I. F $ T $\Rightarrow$ F < T: Not true
II. H δ M $\Rightarrow$ H > M : Not true

76. (3) B @ N $\Rightarrow$ B = N
N © T $\Rightarrow$ N $\geq$ T
T $ K $\Rightarrow$ T < K
Therefore, B = N $\geq$ T < K
**Conclusions:**
I. T @ B $\Rightarrow$ T= B: Not True
II. T $ B $\Rightarrow$ T < B: Not True Either I or II is true.

77. (4) R $ J $\Rightarrow$ R < J
J δ F $\Rightarrow$ J > F
F % H $\Rightarrow$ F $\leq$ H
Therefore, R < J > F $\leq$ H
**Conclusions:**
I. H δ J $\Rightarrow$ H > J : Not True
II. R $ F = R < F: Not True

78. (2) J δ F $\Rightarrow$ J > D
D @ N $\Rightarrow$ D = N
N % F $\Rightarrow$ N $\leq$ F
Therefore, J > D = N $\leq$ F
**Conclusions:**
I. J δ F $\Rightarrow$ J > F : Not True
II. F © D $\Rightarrow$ F $\geq$ D : True

79. (1) B δ T $\Rightarrow$ B > T
T $ H $\Rightarrow$ T < H
H @ M $\Rightarrow$ H = M
Therefore, B > T < H = M
**Conclusions:**
I. M δ T $\Rightarrow$ M > T : True
II. B δ H $\Rightarrow$ B > H : Not True

80. (5) Obviously, option (5) is the appropriate reason of the given facts. People generally consume the quantity contained in a sachets at a time. They do not want to store the ingredient of the sachet after opening it. They think it better to consume the ingredient at once. This necessarily enhances the sale of the products.

**81 – 85.**

| Friends | Area | Hobby |
|---|---|---|
| Hetal | Vikhroli | Singing |
| Jayshreeeee | Thane | Drawing |
| Rohini | Dadar | Reading |
| Meena | Kanjurmarg | Cooking |
| Nidhi | Mulund | Travelling |
| Swati | Matunga | Dancing |

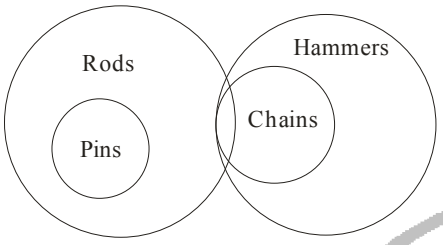
81. (2) Swati's hobby is dancing.
82. (4) Hetal's hobby is singing.
83. (3) Nidhi's hobby is travelling.
84. (1) Jayshree stays in Thane.
85. (4) Rohini stays in Dadar.

86-88.

| Member | Games | Instrument |
|---|---|---|
| A | Badminton | Flute |
| B | Carrom | Banjo |
| C | Lawn Tennis | Harmonium |
| D | Table Tennis | Tabla |
| E | Bridge | Santoor |
| F | Football | Guitar |
| G | Hockey | Sitar |

86. (3) E plays Santoor.
87. (1) D plays Table Tennis.
88. (5) none of the combinations is correct.
89. (4) It is mentioned that unseasonal downpour paralysed the normal life in the state. Therefore, it is not prudent to set up a review committee. The Course of action (B) does not address the problem properly. Thus, only Course of action (C) is suitable for pursuing.
90. (1) Only Course of action (A) is suitable for pursuing.

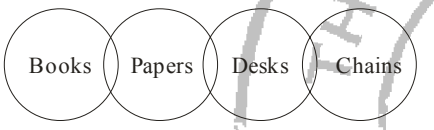
91. (4)




I) } × Either I (or) III  II) ✓
III) }

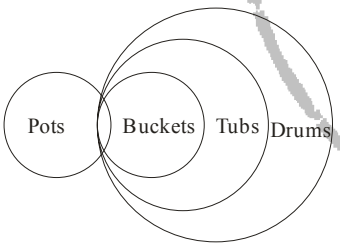
Therefore Either I (or) III and II follow.

92. (1)



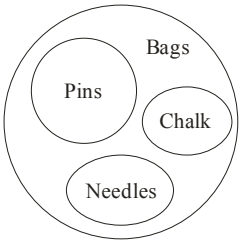

I) × II) × III) ×
Therefore None follows.

93. (2)




I) ✓ II) × III) ✓
Only I and III follows.

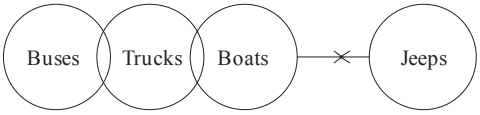
94. (3)




I) } × Either I (or) III  II) ×
III) }

Therefore Either I (or) III follows.

95. (1)




I) × II) × III) ×
Therefore None follows.

96 –100.

| Candidate | Conditions | | | | | | |
|---|---|---|---|---|---|---|---|
| | (i) or (A) | | (ii)or (B) | | (iii) | (iv) | (v) |
| Shobha | ✓ | - | - | ✓ | ✓ | ✓ | ✓ |
| Rohan | ✓ | - | NG | - | ✓ | ✓ | ✓ |
| Prakash | - | ✓ | ✓ | - | ✓ | ✓ | ✓ |
| Sudha | ✓ | - | ✓ | - | ✓ | ✓ | û |
| Amit | ✓ | - | ✓ | - | ✓ | ✓ | ✓ |

96. (1) Shobha Gupta does satisfy conditions (i), (B), (iii), (iv) and (v). Therefore, her case would be referred to Executive Director.
97. (3) It is not mentioned Rohan Maskare worked in which section
98.(2) Prakash Gokhale does satisfy conditions (A), (ii), (iii), (iv) and (v). Therefore, his case would be referred to General Manager - Advances.
99. (4) Sudha Mehrotra does not satisfy condition (v).
100. (5) Amit Narayan does satisfy all the conditions. Therefore, he can be selected.