NIACL/DCCB Preliminary Grand Test –NIACL/DCCB-190110

ANSWER KEY

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

HINTS & SOLUTIONS

1. (3) They are wary of cumber-some police formalities and legal systems
2. (1) Manmade disasters occur more frequently than natural disasters.
3. (4) The government is apathetic and has not managed to handle disasters effectively
4. (2) Lack of disaster management training for medical staff
5. (2) Their working together to manage disasters completely keeping public interests in mind
6. (2) Both (B) and (C)
7. (2) The meaning of the word **Infringe (Verb)** as used in the passage is : to break a law or rule: to limit somebody's legal rights.
Look at the sentences :
The material can be copied without infringing copyright.
She refused to answer questions that infringed on her private affairs.
Of the given alternative, the word **Violate** means : to against or refuse to obey a law, an agreement etc; to disturb or not respect somebody's peace or privacy.
Hence, the words **infringing** and **violating** are synonymous.
8. (3) The meaning of the word **Frequency (Noun)** as used in the passage is : the rate at which something happens or is repeated.
Look at the sentences :
Fatal road accidents have decreased in frequency over recent years.
Objects like this turn up at sales with surprising frequency.
The word **Recurrence** (Noun) means : if there is a recurrence of something, it happens again.
Look at the sentences :
Attempts are being made to prevent a recurrence of the problem.
Hence, the words **frequency** and **recurrence** are synonymous.
9. (2) The meaning of the word **Lethargic (Adjective)** as used in the passage is : the state of not having any energy or enthusiasm for doing things; inactive; inertial.
Look at the sentences :
The weather made him lethargic.
Hence, the words **lethargic** and active are antonymous.
10. (4) The meaning of the word **Dismal (Adjective)** as used in the passage is : causing or showing sadness, gloomy, miserable; not skilful or successful.
Look at the sentences :
The recent attempt to increase production has been a dismal failure.
The singer gave a dismal performance of old songs. .
The word **Animated (Adjective)** means : full of interest and energy: lively.
Hence, the words **dismal** and **animated** are antonymous.
11. (5) 12. (4)
13. (1) 14. (3)
15. (2)
16. (3) What makes him feel…….will be the correct sentence.
17. (1) This is exactly how he wanted me…….. will be the correct sentence as the way of doing work has been asked.
18. (4) if we could extend
19. (2) In Indirect Speech, if the Reporting Verb is in Past Tense, the Reported Speech is also expressed In Past Tense. Hence, the Minister said that he was proud of…….. will be a correct sentence.
20. (5) No correction required
21. (1) 22. (2)
23. (3) 24. (2)
25. (1)
26. (4) The subject of the sentence 'these companies' is Plural. Hence, 'its board members' should be replaced by 'their board members'.
27. (3) The subject of the sentence is 'the scheme' that is Singular and it will take Singular Verb. Hence, 'require an additional investment' should be replaced by 'requires an additional investment'.
28. (5) No error
29. (4) Replace 'and supervise the new staff by 'and supervising the new staff as word 'arranging' (Present Participle) has been used before connective 'and'.
30. (5) No error
31. (3) The given number series is based on the following pattern:

$20 + 2^2 = 24$

$24 + 3^2 = 33$

$33 + 4^2 = 49$

$49 + 5^2 = 74$

$74 + 6^2 = 110$

$\therefore ? = 110 + 7^2$

$= 110 + 49 =$ **159**

32. (5) The given number series is based on the following pattern :

$529 = 23 \times 23$

$841 = 29 \times 29$

$961 = 31 \times 31$

$1369 = 37 \times 37$

$1681 = 41 \times 41$

$1849 = 43 \times 43$

$\therefore ? = 47 \times 47 =$ **2209**

Here, the numbers are formed by squaring the prime numbers greater than 23.

33. (4) The given number series is based on the following pattern :

$16 \times 1.5 = 24$

$24 \times 2 = 48$

$48 \times 2.5 = 120$

$120 \times 3 = 360$

$360 \times 3.5 = 1260$

$\therefore ? = 1260 \times 4 =$ **5040**

34. (1) The given number series is based on the following pattern:

$8 \times 4 - 1 = 32 - 1 = 31$

$31 \times 4 - 2 = 124 - 2 = 122$

$122 \times 4 - 3 = 488 - 3 = 485$

$485 \times 4 - 4 = 1940 - 4 = 1936$

$1936 \times 4 - 5 = 7744 - 5 = 7739$

$\therefore ? = 7739 \times 4 - 6 = 30956 - 6 =$ **30950**

35. (2) The given number series is based on the following pattern:

$499 + 1 \times 123 = 622$

$622 + 2 \times 123 = 868$

$868 + 3 \times 123 = 1237$

$1237 + 4 \times 123 = 1729$

$1729 + 5 \times 123 = 2344$

$\therefore ? = 2344 + 6 \times 123 = 2344 + 738 =$ **3082**

36. (4) The given data are inadequate.

37. (5) From statement II,

If the age of Rani = x years, then

Surekha's age = 2x years

$\therefore x + 2x = 72$

$\Rightarrow 3x = 72$ years $\Rightarrow x = \frac{72}{3} = 24$ years

Rani's age = 24 years

As per the given information in statement I, Nidhi's age can be determined.

38. (2) Statement I is superfluous.

From statement II,

Number of boys in the school $= 3500 \times \frac{60}{100} = 2100$

Number of boys in the school $= \frac{3500 \times 60}{100} = 2100$

$\therefore$ Required ratio = 2100 : 1400 = 3 : 2

39. (5) Let Mr. Mehta's present income be Rs. x

From statement I and II,

10% of x = 2500 $\Rightarrow x \times \frac{10}{100} = 2500$

$\Rightarrow$ x = 2500 $\times$ 10 = Rs. 25000

40. (3) From statement I,

Speed of the bus = $\frac{\text{Distance covered}}{\text{Time Taken}} = \frac{80}{5}$ = 16 kmph

As per the information in statement II, the speed of the bus can also be determined.

41. (1) Required average

$= \frac{1}{6}(800 + 810 + 920 + 930 + 950 + 970)$

$= \frac{1}{6} \times 5380 = 896\frac{2}{3} = 897$

42. (2) Total number of students: City Q $\Rightarrow$ 390 + 570 + 930 + 220 + 810 = 2920

City S $\Rightarrow$ 780 + 980 + 1100 + 280 + 930 = 4070

Required difference = 4070 - 2920 = 1150

43. (3) Number of students in Medical Science in cities R and S = 680 + 980 = 1660

Number of students in Polytechnic in cities P and S = 900 + 1100 = 2000

Difference = 2000 - 1660 = 340

Required percent = $\frac{340}{2000} \times 100 = 17\%$

44. (4) Required ratio = 650 : 260 = 5 : 2

45. (1) Required percent $= \frac{280 - 200}{200} \times 100 = \frac{8000}{200} = 40\%$

46. (3) Total number of passed students in 2005 = 76 + 77 + 91 + 91 + 72 + 80 = 396

Total number of failed students in 2005 = 12 + 10 + 7 + 15 + 4 = 48

$\therefore$ Required ratio = 396 : 48 = 33 : 4

47. (4) Total number of passed students in class X over the years

= 75 + 91 + 80 + 78 + 66 + 59 = 449

Total number of failed students in class X over the years

= 13 + 6 + 4 + 12 + 9 + 14 = 58

$\therefore$ Total number of students = 449 + 58 = 507

$\therefore$ Required percentage = $\frac{449}{507} \times 100 = 88.56$

48. (1) Total number of passed students for all the classes in the year 2007 = 69 + 80 + 76 + 78 + 66 = 369

49. (1) Average number of failed students from Class VI for the given years

$= \frac{6 + 9 + 12 + 10 + 7 + 4}{6} = \frac{48}{6} = 6$

50. (2) Number of failed students over the years :

Class VI $\rightarrow$ 6 + 9 + 12 + 10 + 7 + 4 = 48

Class VII $\rightarrow$ 9 + 9 + 10 + 12 + 13 + 15 = 68

Class VIII $\rightarrow$ 10 + 4 + 7 + 7 + 3 + 8 = 39
Class IX $\rightarrow$ 10 + 11 + 15 + 13 + 8 + 6 = 63
Hence, Class VII has the maximum number of failed students.

51. (1) Number of research journals published by publisher D

$$= 18400 \times \frac{16}{100}$$

Research papers $\Rightarrow 28600 \times \frac{16}{100}$

$\therefore$ Required ratio

$$= 18400 \times \frac{16}{100} : 28600 \times \frac{16}{100} = 92 : 143$$

52.(2) Required answer

$$= 18400 \times \frac{22}{100} + 28600 \times \frac{13}{100}$$

= 4048 + 3718 = 7766

53.(3) Required percentage

$$= \frac{18-8}{8} \times 100 = \frac{1000}{8} = 125\%$$

54. (4) Research papers published by A, C and F
= (15 + 20 + 18) % of 28600

$$= \frac{28600 \times 53}{100} = 15158$$

Research journals published by A, C and F
= (12 + 22 + 14) % of 18400

$$= 18400 \times \frac{48}{100} = 8832$$

Required difference = 15158 – 8832 = 6326

55.(1) $\because$ 100% = 360^0

$$\therefore 1\% = \frac{360}{100} = 3.6$$

$$\therefore 15\% = 3.6 \times 15 = 54^0$$

56. (3) Average of 8 consecutive odd numbers = $\frac{656}{8} = 82$

$\therefore$ Fourth number = 82 - 1 = 81
$\therefore$ First numbers = 75
Average of 4 even numbers = 87
$\therefore$ Second even number = 87 - 1 = 86
Second largest even number = 88
$\therefore$ Required sum = 75 + 88 = 163

57.(5) First S.P. = $\frac{9600 \text{ x } 95}{100}$ = Rs.9120

Second S.P.= $\frac{9120 \text{ x } 105}{100}$ = Rs.9576

Loss = 9600 - 9576 = Rs. 24

58. (1) Rate downstream of boat = 17.5 + 2.5 = 20 kmph
Rate upstream of boat = 17.5 - 2.5 = 15 kmph
Distance XY = x km.

$\therefore$ Distance YZ = $\frac{2x}{5}$ km.

Total time = 429 minutes = $7\frac{3}{20}$ hours = $\frac{143}{20}$ hours

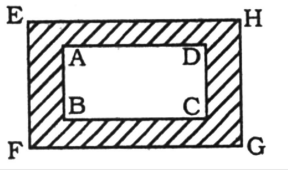
$$\therefore \frac{x}{20} + \frac{2x}{5 \times 15} = \frac{143}{20} \quad \left[\because \frac{\text{Distance}}{\text{Speed}} = \text{Time}\right]$$

$$\Rightarrow \frac{x}{4} + \frac{2x}{15} = \frac{143}{4} \Rightarrow \frac{15x + 8x}{60} = \frac{143}{4}$$

$$\Rightarrow 23x = 143 \times 15 \Rightarrow x = \frac{143 \times 15}{23} = 93\text{km}$$

$$\therefore \text{Total distance} = x + \frac{2x}{5} = \frac{7x}{5} = \frac{7 \times 93}{5} = 130\text{km}$$

59. (2)



Width of Park = x metre (let)
$\therefore$ Its length = (x + 11) metre
$\therefore$ x(x + 11) = 242 = 11(11 + 11) $\Rightarrow$ x = 11 metre = width
$\therefore$ Length = 22 metre
Length of park with path
= 22 + 2 $\times$ 5 = 32 metre = EH Width
= 11 + 2 $\times$ 5 = 21 metre = EF
$\therefore$ Area of path = EH $\times$ EF - AB $\times$ BC
= 32 $\times$ 21 – 242 = 672 - 242 = 430 sq. metre

60. (3) Jaya's age 10 years ago = x years = Simaran's present age
Jaya's present age = (x + 10) years
According to the question,
x + 10 + 8 + x - 12 = 90 $\Rightarrow$ 2x + 6 = 90

$\Rightarrow$ 2x = 90 - 6 = 84 $\Rightarrow$ x = $\frac{84}{2}$ = 42 years

$\therefore$ Komal's present age = 42 - 9 = 33 years
$\therefore$ Komal's age 13 years ago = 33 - 13 = 20 years

61. (1) $\frac{750 \times 52}{100} + \frac{420 \times 45}{100} - ? = 225$

$\Rightarrow$ 390 + 189 - ? = 225
$\Rightarrow$ 579 - ? = 225
$\Rightarrow$? = 579 - 225 = 354

62. (2) $350 \times 20 + ?^2 \times 180 = 11500$

$$\Rightarrow 7000 + ?^2 \times 180 = 11500$$

$$\Rightarrow ?^2 \times 180 = 11500 - 7000 = 4500$$

$$\Rightarrow ?^2 = \frac{4500}{180} = 25$$

$$\Rightarrow ? = \sqrt{25} = 5$$

63. (3) $\frac{1800}{\sqrt{?}} \times \frac{30}{15} = 144 \Rightarrow \frac{3600}{\sqrt{?}} = 144$

$$\Rightarrow 144 \times \sqrt{?} = 3600$$

$$\Rightarrow \sqrt{?} = \frac{3600}{144} = 25$$

$$\Rightarrow ? = 25 \times 25 = 625$$

64. (1) $\left(52^2 - 34^2\right) \div 18 \times \sqrt{?} = 1720$

$$\Rightarrow \frac{(52+34)(52-34)}{18} \times \sqrt{?} = 1720$$

$\Rightarrow \frac{86\times18}{18}\times\sqrt{2}=1720$

$\Rightarrow \sqrt{?}=1720\div86=20$

$\therefore ?=20\times20=400$

65. (2) $?=(340\times10)\div6.4+1245=531+1245=1776$

66-70. (i) P @ Q $\Rightarrow$ P > Q $\Rightarrow$ P $\leq$ Q

(ii) P δ Q $\Rightarrow$ P < Q $\Rightarrow$ P $\geq$ Q

(iii) P % Q $\Rightarrow$ P > Q ; P < Q $\not\Rightarrow$ P = Q

(iv) P ★ Q $\Rightarrow$ P $\leq$ $\not\Rightarrow$ P < Q

(v) P # Q $\Rightarrow$ P $\leq$ Q $\Rightarrow$ P > Q

@ $\Rightarrow \leq$	δ $\Rightarrow \geq$	% $\Rightarrow =$
* $\Rightarrow <$	# $\Rightarrow >$	

66. (4) R % W $\Rightarrow$ R = W

W @ K $\Rightarrow$ W $\leq$ K

K★M $\Rightarrow$ K < M

Therefore,

R = W $\leq$ K < M

Conclusions

I. W # M $\Rightarrow$ W > M : Not True

II. R % M $\Rightarrow$ R = M : Not True

67. (3) H ★N $\Rightarrow$ H < N

N @ K $\Rightarrow$ N $\leq$ K

K # D $\Rightarrow$ K > D

Therefore,

H < N $\leq$ K > D

Conclusions

I. D # N $\Rightarrow$ D > N : Not true

II. H δ K $\Rightarrow$ H $\geq$ K : Not true

68. (5) D @ T $\Rightarrow$ D $\leq$ T

T % H $\Rightarrow$ T = H

H ★Q $\Rightarrow$ H < Q

Therefore,

D $\leq$ T = H < Q

Conclusions

I. T ★Q $\Rightarrow$ T < Q : True

II. D % H $\Rightarrow$ D = H : Not true

69. (1) M # R $\Rightarrow$ M > R

R δ T $\Rightarrow$ R $\geq$ T

T @ P $\Rightarrow$ T $\leq$ P

Therefore,

M > R $\geq$ T $\leq$ P

Conclusions

I. R % P $\Rightarrow$ R = P : Not true

II. T ★M $\Rightarrow$ T < M : True

70. (2) W δ Q $\Rightarrow$ W $\geq$ Q

Q # P $\Rightarrow$ Q > P

P @ R $\Rightarrow$ P $\leq$ R

Therefore,

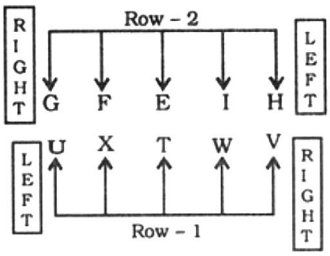
W $\geq$ Q > P $\leq$ R

Conclusions

I. Q % R $\Rightarrow$ Q = R : Not True

II. W # P $\Rightarrow$ W > P : True

71 – 75.



71. (2) Except E, all others are sitting at the extreme ends of the rows.

72. (1) G is sitting third to the right of I.

73. (4) W is facing I.
W is sitting between T and V.
W is sitting second from the right end.

74. (3) F and I are immediate neighbours of E.

75. (5) All the statements are true.

76 – 80.

Friend	Bank	Post
A	S	Forex Officer
B	M	Agriculture Officer
C	N	Economist
D	L	Terminal Operator
E	R	IT Officer
F	Q	Clerk
G	P	Research Analyst

76. (2) B works as an Agriculture Officer.

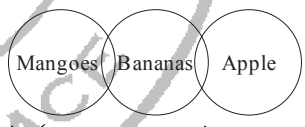
77. (3) C is an Economist

78. (1) B works for bank M.

79. (4) A works for bank S and he is a Forex Officer.

80. (5) None is true.

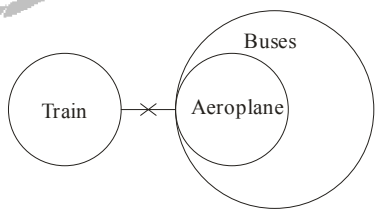
81. (1)



I) ✓ II) ×

Therefore only I follows.

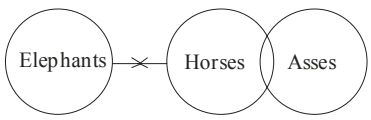
82. (5)



I) × II) ✓

Therefore only II follows.

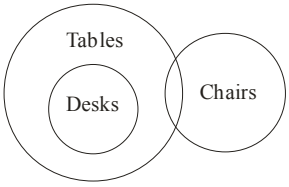
83. (2)



I) × II) ✓

Therefore only II follows.

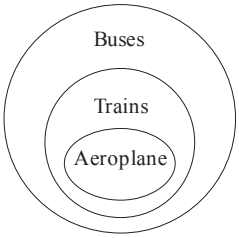
84. (4)



I) ✓ II) ✓

Therefore both I and II follows.

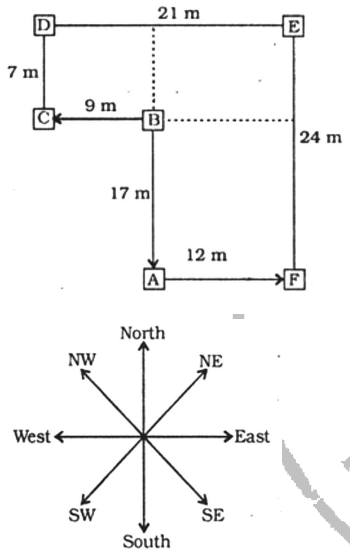
85. (4)



I) ✓ II) ×

Therefore only I follows.

86 – 87.



86.(4) It is clear from the diagram he would reach Point B first.

87.(2) Point E is in North-East direction with respect to Point A.

88.(1) P & Q ⇒ P is son of Q.
Q % R ⇒ Q is father of R.
R + S ⇒ R is husband of S.
S $ T ⇒ S is mother of T.
R is father of T.
So, Q is grandfather of T.

89. (3) P % Q ⇒ P is father of Q.
Q + R ⇒ Q is husband of R.
R $ S ⇒ R is mother of S.
S $ T ⇒ S is mother of T.
T & V ⇒ T is son of V.
S is mother of T.
V is son-in-law of R.
P is Grandfather of S.
R is Grandmother of T.

90.(4) P + Q ⇒ P is husband of Q.
Q $ R ⇒ Q is mother of R.
R % S ⇒ R is father of S.
S @ T ⇒ is daughter of T.
S & T ⇒ S is son of T.
If we establish that S is child of T, then R would be the husband of T.

91.(2) Statement (B) is the cause and Statement (A) is its effect.

92. (4) Both the statements (A) and (B) are effects of independent causes.

93. (2) Statement (B) is the cause and Statement (A) is its effect.

94. (1) Statement (A) is the cause and Statement (B) is its effect.

95. (2) Statement (B) is the cause and Statement (A) is its effect.

96. (1) The company has been making huge losses for the past five years and is unable to pay salary to its employees in time.

97. (3) The IT and ITES companies have now decided to visit the engineering college campuses for tier II cities in India as well.

98. (3) Process of poverty measurement needs to take into account various factors to tackle its dynamic nature.

99. (1) It may not be possible to have an accurate poverty measurement in India.

100. (2) Increase in number of per-sons falling into poverty varies considerably across the country over a period of time.