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KD Campus Pvt. Ltd
PLOT NO. 2 SSI, OPP METRO PILLAR 150, GT KARNAL ROAD, JAHANGIRPURI DELHI: 110033

SSC MOCK TEST – 184 (SOLUTION)

1. (C) Nephrology is the study of kidney whereas Ichthyology is the study of **Fish**.

2. (B) As, $16 : 40 \rightarrow 16 \times \frac{5}{2} = 40$

   Similarly, $32 \rightarrow 32 \times \frac{5}{2} =$ **80**

3. (D) As, D F I : R U W
   (opposite alphabets)
   Similarly, K M P : **K N P**
   (opposite alphabets)

4. (D) Except **Magnetic Field**, others are unit for measurement.

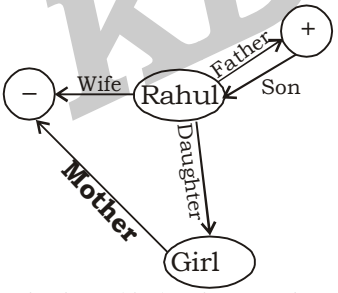
5. (B) Except '**325**', others are one less than the perfect square of natural number

6. (C) F L R (+6, +6) K Q W (+6, +6)
   P I B (**–7, –7**) C I O (+6, +6)

7. (C) **Nature, Nest, News, Numeric, Nutrient**

8. (D) 122 , 197 , 290 , **401**
   +75 , +93 , +111
   +18 +18

9. (A) DGF , JML , PSR , **VYX**
   +6 +6 +6

10. (B)


    ∴ Rahul's wife is the mother of that girl.

11. (C) Neha, Shalini, **Rekha**, Neetu, Pooja
    Hence, Rekha is sitting in the middle.

12. (A) Word '**BLUE**' cannot be made from the letters of the given words.

13. (C) As, FOREIGN ULIVRTM
    (Reverse)
    Similarly, GROUP **TILFK**
    (Reverse)

14. (A) 6 Ω 108 α 9 β 200 λ 56
    After inter-changing the signs as per given details,
    6 ×108 ÷ 9 + 200 – 56
    = 72 + 200 – 56
    = **216**

15. (B) As, $8\times4\times3 = 51 \rightarrow 8^1 + 4^2 + 3^3 = 51$
    and, $9\times5\times6 = 250 \rightarrow 9^1 + 5^2 + 6^3 = 250$
    Similarly, $12\times8\times4 \rightarrow 12^1\times8^2\times4^3 =$ **140**

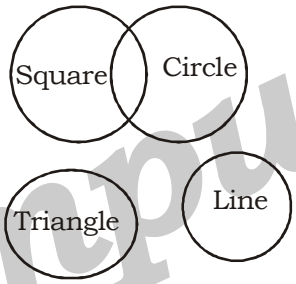
16. (B) As, 8, 16, 2, 64 $\rightarrow 8 \times \frac{16}{2} = 64$

    and, 4, 9, 3, 12 $\rightarrow 4 \times \frac{9}{3} = 12$

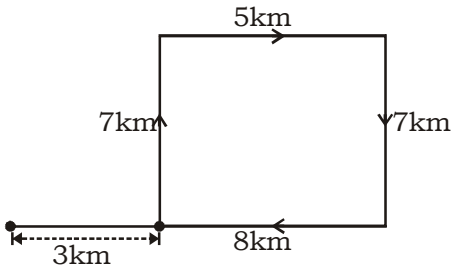
    Similarly, 12, 5, ? , 20 $\rightarrow 12 \times \frac{5}{x} = 20$

    $\Rightarrow x =$ **3**

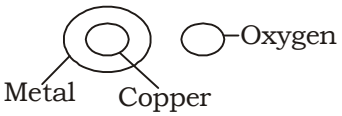
17. (C) Required number of rectangles = **18**

18. (A)


    I. True
    II. False
    ∴ Only **conclusion I** follows.

19. (A)


    Hence, She is **3 km, west** with reference to her starting point.

20. (A)


21. (D)
22. (D)
23. (A)
24. (A)
25. (D) N I G H T
    ↓ ↓ ↓ ↓ ↓
    10 32 59 30 89

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27. (C) ''Kailashanath Temple, Kanchipuram (Tamil Nadu) was built by Pallava king Narsimham Varman. '' Kailashanatha Tample of Ellora was built by the Rashtrakata king Krishna-I

28. (B)

Mountain Peak	**Place/Range**
Kangchenjunga	Sikkim/ Himalaya Range
Saltoro Kangri	Jammu and kashmir/Karakoram Range
Anamudi	Kerala/Sahyadhri Range
Dhupgarh	Madhya Pradesh/ Satpura Rang
Amarkantak	Madhya Pradesh/ Vindhya Range
Guru Shikhar	Rajasthan /Aravalli Range
Jindhagada Peak	Andhra Pradesh/ Eastern Ghats

30. (C) Devaluation in modern monetary policy is a reduction in the value of a currency with respect to those goods, services or other monetary units with which that currency can be exchanged. It means official lowering of the value of a country's currency with in fixed exchanged rate system.

34. (A) Magnetic quantum number represents the number of orbital's present in the subshell magnetic quantum number about the orientation of the orbital.

38. (C) The battle of Dharmat fough in 1658.
- Battal of Chandwar – Muhammad Ghori and Jai Chand
- Third Battle of Panipat – Ahammad Shah Abdali and Marathas.

39. (B) The Ross Sea is one of the last intact marine ecosystem in the world, which covers 1.6 million square kilometers. It is home to Penguins, Seals, Antarctic tooth fish and Whales.

40. (D) Member of Parliament are directly elected by citizens of India on the basis of Universal Adult Franchise, except two who are appointed by the President of India.
- The president of India is elected from an Electoral College comprising a Group of Nominees by the elected member of the Parliament of India (Lok Sabha and Rajya Sabha) as well of the state Legislatures (Vidhan Sabha)
- The Vice President is elected indirectly by an electoral college consisting member of both Houses of the Parliament.
- Member of the Lok Sabha elect their Speaker in the First Meeting of the Houses after a General Election.

44. (A) Hydrogen has the highest Calorific value of (141,790,KJ/Kg). Thus, it has fuel value. Calorific value of charcoal, natural gas and gasoline are 29600 KJ/Kg,43000 KJ/m^3 and 47300 KJ/Kg) respectively.

48. (A) Ali Smith — How to be Both
Javier Moro —The Red Sari
Amitav Ghosh — Flood of Fire.

51. (C) Let the ratio of ages of A and B is $4x : 5x$ and C and D is $6y : 7y$
10 yrs ago, ratio of ages of A and C is

$$\frac{4x-10}{6y-10} = \frac{1}{2}$$

$\Rightarrow 8x - 20 = 6y - 10 \Rightarrow 4x - 3 = 10$ ...(i)
10 yrs ago, ratio of B and D

$$\frac{5x-10}{7y-10} = \frac{3}{5} \Rightarrow 25x - 50 = 21y - 30$$

$\Rightarrow 25x - 21y = 20$ ...(ii)
From eq. (i) and (ii), $x = 5$ and $y = 5$
$\therefore$ Present ages of A, B, C and D is 20, 25, 30, 35

$\therefore$ Average age of A, B and C = $\frac{20+25+30}{3}$

$= \frac{75}{3} = 25$ years

52. (C) We know 150% = $\frac{3}{2}$, 75% = $\frac{3}{4}$ and 125% $= \frac{5}{4}$

$\therefore$ Let the ratio of saving of Deepak and Javed = $3x : 2x$
Ratio of expenditure of Deepak and Javed = $3y : 4y$
According to question,

$$\frac{3x+3y}{2x+4y} = \frac{4}{5}$$

$\Rightarrow 15x + 15y = 8x + 16y$
$\Rightarrow 7x = y$

$\Rightarrow \frac{x}{y} = \frac{1}{7}$

$\therefore$ Ratio of saving to expenditure of Deepak $= 3x : 3y \Rightarrow x : y = 1 : 7$

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53. (B) $(xyz)^{\frac{1}{2}+\frac{1}{2}} - 1 = \left[(xyz)^{\frac{3}{2}+\frac{1}{2}}\right]$

$\Rightarrow xyz - 1 = (xyz)^2$ ...(i)

and, $(xyz)^4 = (xyz-1)^2 = (xyz)^2 + 1 - 2xyz$ ...(ii)

Putting in the equation.

$$\frac{1+2(xyz)^2+(xyz)^4}{(xyz)^2}$$

$$\Rightarrow \frac{1+2(xyz-1)+(xyz)^2+1-2xyz}{(xyz)^2}$$

$$\Rightarrow \frac{2+2xyz-2+(xyz)^2-2xyz}{(xyz)^2} = \frac{(xyz)^2}{(xyz)^2}$$

$= 1$

54. (A) Given $\frac{c-a}{b}+\frac{b-c}{a}+\frac{a+b}{c}=1$

$$\frac{c-a}{b}+\frac{b-c}{a} = 1-\left(\frac{a+b}{c}\right)$$

$$\Rightarrow \frac{ac-a^2+b^2-bc}{ab} = \frac{(c-a-b)}{c}$$

$$\Rightarrow \frac{ac-bc+b^2-a^2}{ab} = \frac{c-a-b}{c}$$

$$\Rightarrow \frac{c(a-b)+(b+a)(b-a)}{ab} = \frac{c-a-b}{c}$$

$$\Rightarrow \frac{(a-b)(c-b-a)}{ab} = \frac{(c-a-b)}{c}$$

$$\Rightarrow \frac{1}{b}-\frac{1}{a}=\frac{1}{c}$$

55. (D) Let x be the money borrowed at interest rate 5% for 1st years.

$\therefore$ Amount become $= 1.05x$

Amount left after 1st year $= (1.05x - 7250)$

Now, according to question

$$\frac{(1.05x-7250)4\%}{x\times 5\%} = \frac{11}{20}$$

$$\Rightarrow \frac{105}{100}x\times 80 \text{ — } 580{,}000 = 55x$$

$\Rightarrow 29x = 5{,}80{,}000$

$x = 20{,}000$

$\therefore$ Amount borrowed = 20,000

56. (B) Interest for 10 years is 4140

$\therefore$ Interest for one year = 414

Now interest for 5 years = 414 × 5 = 2070

After 5 years principal becomes 5 times.

$\therefore$ Interest will also become 5 times

= 2070 × 5 = 10350

$\therefore$ Total interest = 2070 + 10350 = 12,420

57. (D) Increased age of whole team = 11 × 3 months = 33 months.

Now, Age of two new players = 18 + 20 + $\frac{33}{12}$ years

$= 40 + \frac{9}{12}$ years.

$\therefore$ Average of two new players = 20 years 4.5 months.

58. (D) Multiplying and Dividing the equation by $\left(x^2+\frac{1}{x^2}\right)$

$$\left(x^2+\frac{1}{x^2}\right)\times \frac{\left(x+\frac{1}{x}\right)\left(x-\frac{1}{x}\right)\left(x^4+\frac{1}{x^4}\right)\left(x^8+\frac{1}{x^8}\right)\left(x^{16}+\frac{1}{x^{16}}\right)\left(x^{32}+\frac{1}{x^{32}}\right)}{\left(x^2+\frac{1}{x^2}\right)}$$

$\Rightarrow$ Using identity (a + b) (a – b) = ($a^2 - b^2$) ....(i)

$$\frac{\left(x^2+\frac{1}{x^2}\right)\left(x^2-\frac{1}{x^2}\right)\left(x^4+\frac{1}{x^4}\right)\left(x^8+\frac{1}{x^8}\right)\left(x^{16}+\frac{1}{x^{16}}\right)\left(x^{32}+\frac{1}{x^{32}}\right)}{\left(x^2+\frac{1}{x^2}\right)}$$

$\Rightarrow$ Using identity (i) again and again, we finally get $\frac{\left(x^{64}-\frac{1}{x^{64}}\right)}{\left(x^2+\frac{1}{x^2}\right)}$.

59. (A) We know that $\left(x^3-\frac{1}{x^3}\right) = 14$

$$\Rightarrow \left(x-\frac{1}{x}\right)\left(x^2+\frac{1}{x^2}+x\times\frac{1}{x}\right) = 14$$

$$\Rightarrow \left(x-\frac{1}{x}\right)\left(x^2+\frac{1}{x^2}-2+2+1\right) = 14$$

[Adding and subtracting 2]

$$\Rightarrow \left(x-\frac{1}{x}\right)\left[\left(x^2-\frac{1}{x}\right)^2+3\right] = 14$$

Let $\left(x-\frac{1}{x}\right) = m$

$m(m^2 + 3) = 14$

$\Rightarrow m^3 + 3m = 14$

Let m = 2

$\Rightarrow 2^3 + 3 \times 2 = 14$

This will satisfy the equation & m

$= \left(x-\frac{1}{x}\right) = \mathbf{2}$

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60. (A) $x + 3 = 0$
$\Rightarrow x = -3$
putting in equation $x^2 + ax + b$ with a remainder of (–1).
$\therefore (-3)^1 + (-3)\,a + b = 1$
$\Rightarrow 9 - 3a + b = -1$
$\Rightarrow 3a - b = 10$ ...(i)
$x - 3 = 0$
$\Rightarrow$ Putting in equation $x^2 + bx + a$ with a remainder of 39.
$(3)^2 + (3)b + a = 39$
$\Rightarrow 9 + 3b + a = 39$
$\Rightarrow 3b + a = 30$
$\Rightarrow 9b + 3a = 90$ ...(ii)
Solving (i) and (ii), a = 6, b = 8
$\therefore$ Sum of a and b = 6 + 8 = 14

61. (C) From (C), total number of mangoes = 24,000
1st day selling = 12,000
1st night mangoes rotten [10% of 12,000] = 1200
Mangoes left after 1st night = 10,800
2nd day selling = 5,400
2nd night mangoes rotten (i.e., 10% of 5,400) = 540
Mangoes left after 2nd night = 4860
3rd day selling = 2430
3rd night mangoes rotten (i.e. 10% of 2430) = 243
$\therefore$ Mangoes rotten in 3 nights = 1200 + 540 + 243 = 1983

62. (B) 3% less commission is offered upto 9000.
$\therefore$ With addition of 3% over 9,000. We will calculate the commission on 15% (i.e. 12% + 3%)

$3\ \%\ \text{of}\ 9000 = \frac{3}{100} \times 9000 = 270$

Total commission of sales person = 1980 + 270 = 2250
$\therefore$ 15% of total sales = 2250

$\therefore$ 100% of total sales = $\frac{2250}{15} \times 100$

= 15,000

63. (C) According to questions
Total mixture she sold:
$\Rightarrow$ 5% of 750 + 10% of 750 + 15% of 750 + ... + 95% of 750 + 100% of 750

$\Rightarrow 750 \times \frac{5}{100}\ [1 + 2 + 3 + ...19 + 20] = \frac{21}{2} \times$ 750 = 7875 ltr.

Ratio of total mixture she sold to the milk
$\Rightarrow$ 7875 : 750
$\Rightarrow$ 21 : 2
$\therefore$ Ratio of milk to water she sold = 2 : 19

64. (A) We know that $PT^2 = PA \times PB$
$\Rightarrow (6)^2 = (5) \times (5 + AB)$

$\Rightarrow \frac{36}{5} = 5 + AB$

$\Rightarrow 7.2 - 5 = AB$
$\Rightarrow AB = 2.2$ cm.

65. (C) Longest rod that can be placed in a room

$= \sqrt{l^2 + b^2 + h^2} = \sqrt{24^2 + 18^2 + 16^2}$

$= \sqrt{576 + 324 + 256} = \sqrt{1156} = 34$ m

66. (B) Let length, breadth and height be in ratio $4x : 3x : 2x$
$\therefore$ Total surface area of block = $2(lb + bh + hl)$
$\Rightarrow 8788 = 2(12x^2 + 6x^2 + 8x^2)$
$\Rightarrow 26x^2 = 4394$
$\Rightarrow x^2 = 169$
$\Rightarrow x = 13$
$\therefore$ Length of block = 4x = 4 × 13 = 52 cm

67. (D) Area of shaded portion = Area of quadrant – Area of triangle

$= \frac{1}{4} \times \pi \times 3.5 \times 3.5 - \frac{1}{2} \times 3.5 \times 2$

$= \frac{1}{4} \times \frac{22}{7} \times 3.5 \times 3.5 - 3.5$

$= 9.625 - 3.5 \Rightarrow 6.125\ cm^2$

68. (C) $\text{Tan}60° = \tan(20° + 40°) = \frac{\tan 20° + \tan 40°}{1 - \tan 20° \tan 40°}$

$\sqrt{3}\,(1 - \tan 20° \tan 40°) = \tan 20° + \tan 40°$

$\sqrt{3} = \tan 20° + \tan 40° + \sqrt{3} \tan 20° \tan 40°$

69. (C) $\tan 9° + \tan(90 - 9)° - [\tan 27° + \tan(90 - 27)°]$
$= \tan 9° + \cot 9° - (\tan 27° + \cot 27°)$

$\Rightarrow \frac{\sin 9°}{\cos 9°} + \frac{\cos 9°}{\sin 9°} - \left[\frac{\sin 27°}{\cos 27°} + \frac{\cos 27°}{\sin 27°}\right]$

$\Rightarrow \frac{1}{\cos 9° . \sin 9°} - \left[\frac{1}{\cos 27° . \sin 27°}\right]$

$[\because \sin^2\theta + \cos^2\theta = 1]$

$\Rightarrow \frac{2}{2 . \cos 9° \sin 9°} - \left[\frac{2}{2 . \cos 27° . \sin 27°}\right]$

$\Rightarrow \frac{2}{\sin 18°} - \frac{2}{\sin 54°}$ $[\because \sin 2A = 2 \sin A \cos A]$

$\Rightarrow \frac{2[\sin 54° - \sin 18°]}{\sin 18° . \sin 54°}$

$\Rightarrow$ Using $[\text{sinC} - \text{sinD} = 2 \cos\left(\frac{C + D}{2}\right) . \sin\left(\frac{C - D}{2}\right)]$

$\Rightarrow \frac{2.2 \sin 18° . \cos 36°}{\sin 18 . \cos 36} = 4$ $[\because \sin(90 - 54) = \cos 36°]$

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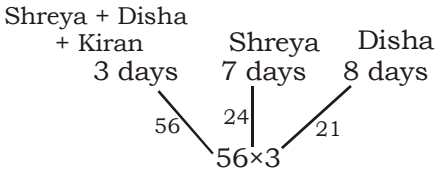
70. (A)



∴ Kiran efficiency = Sum of all efficiency – efficiency of (shreya + Disha)
= 56 – 24 – 21 =11

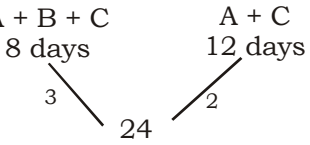
∴ Money given to Kiran

$$= \frac{\text{Amount}}{\text{Total efficiency}} \times \text{eff. of Kiran}$$

$$= \frac{56,000}{56} \times 11$$

⇒ 11,000

71. (B)



∴ B efficiency = 3 – 2 = 1
and, efficiency of B is 25% less than A.

∴ A efficiency = $\frac{4}{3}$ of B's efficiency

∴ A = $\frac{4}{3} \times 1 = \frac{4}{3}$

∴ C efficiency = $2 - \left(\frac{4}{3}\right) = \frac{2}{3}$

∴ Time taken by C to do work = $\frac{24}{\left(\frac{2}{3}\right)}$

= 36 days

72. (C)

73. (A) No. of students appearing from Bihar in 2016 = 20% of 2.40 lakhs = 48000
No. of students appearing from WB in 2015
= 20% of 2.50 = 50000 lakhs

$$\text{Reqd.\%} = \frac{48000}{50000} \times 100 = 96\%$$

74. (D)

75. (C) $\text{Reqd.\%} = \frac{30000}{240000} \times 100 = 12.50\%$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Fervent	having or displaying passionate intensity	उत्सुकता भरा
Behemoth	something large and powerful	विशालकाय
Salubrious	healthy or pleasant	स्वास्थ्यप्रद
Vicarious	experienced in the imagination through the feelings or actions of another person	प्रतिस्थानिक
Retrospect	in considering the past or a past event	पुनरावलोकन
Petrology	the branch of science concerned with the origin, structure, and composition of rocks	शैलविज्ञान
Archaeology	the study of human history and prehistory through the excavation of sites and the analysis of artefacts and other physical remains	पुरातत्व विज्ञान
Microbiology	the branch of science that deals with microorganisms	कीटाणु-विज्ञान
Epidemiology	the branch of medicine which deals with the incidence, distribution, and possible control of diseases and other factors relating to health	महामारी विज्ञान
Drove	a large group of people or animals moving from one place to another	समूह
Kennel	a small shelter for a dog	कुत्ता-घर
Eccentric	unconventional and slightly strange	विपथगामी
Egregious	outstandingly bad; shocking	बेहद खराब
Exacerbate	make something worse	खराब करना

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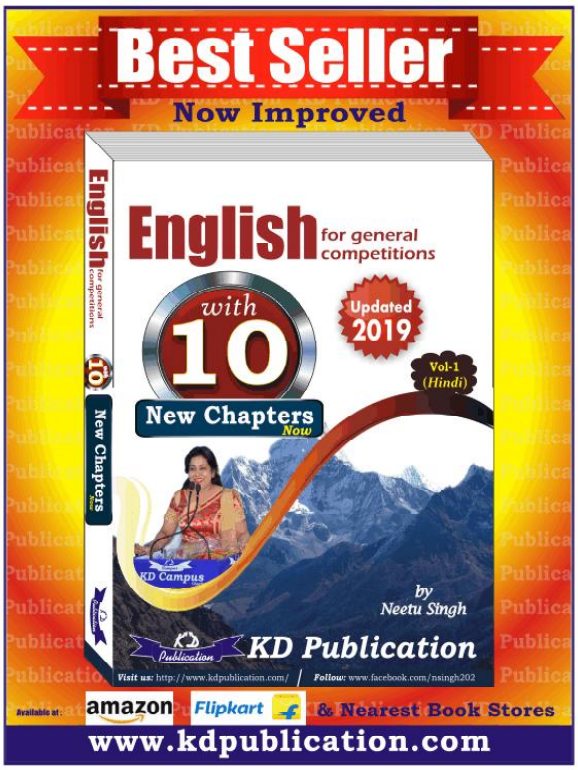
SSC MOCK TEST - 184 (ANSWER KEY)

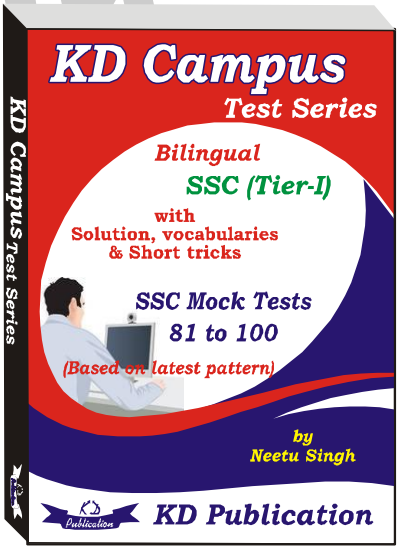
1.	(C)	26.	(D)	51.	(C)	76.	(A)
2.	(B)	27.	(C)	52.	(C)	77.	(B)
3.	(D)	28.	(B)	53.	(B)	78.	(A)
4.	(D)	29.	(C)	54.	(A)	79.	(D)
5.	(B)	30.	(C)	55.	(D)	80.	(D)
6.	(C)	31.	(A)	56.	(B)	81.	(B)
7.	(C)	32.	(B)	57.	(D)	82.	(C)
8.	(D)	33.	(C)	58.	(D)	83.	(A)
9.	(A)	34.	(A)	59.	(A)	84.	(C)
10.	(B)	35.	(A)	60.	(A)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



76. (A) 'Integrate' is a verb which is not appropriate here. 'Integration' is the right word, and it is a noun.
Integration: the act or process of integrating.

77. (B) It is not 'merge to'. It should be 'merge with'. The correct preposition is 'with'.

78. (A) The word 'intimate' is wrong. It is 'innate ability'.
Innate: inborn, natural.



Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

Note:- Whatsapp with Mock Test No. and Question No. at 7053606571 for any of the doubts. Join the group and you may also share your suggestions and experience of Sunday Mock Test.

Note:- If you face any problem regarding result or marks scored, please contact 9313111777