

DP HEAD CONSTABLE – 02 (SOLUTION)

1. (A)
2. (D) As, $(2)^2 \Rightarrow (2)^3$
Similarly,
 $(1)^2 \Rightarrow (1)^3 = 1$
3. (A) As,
 $818 \Rightarrow (2)^3 18 \Rightarrow \sqrt{18-2} = 4$
Similarly,
 $126 \Rightarrow (1)^3 26 \Rightarrow \sqrt{26-1} = 5$
4. (D) Expect **K.R. Narayana**, all others were the Prime Ministers of India while K.R. Narayana was the **President** of India.
5. (A) Except **41 - 72**, in all others second number is divisible by the sum of digits of first number.
6. (D) Except **6354**, sum of digits of all others is odd.
7. (D)
8. (A)

507,	536,	576,	629,	699
+29	+40	+53	+70	
+11		+13		+17
9. (B)

+4	+6	+8	+10	+12
2 × 2,	3 × 6,	4 × 12,	5 × 20,	6 × 30,
7 × 42				
+1		+1		+1
10. (C) Number of female members
 $= (1 + 3 + 1 + 2 + 2)$
 $= 9$
11. (B)

A	B	C	D	E
↓	↓	↓	↓	↓
3	2	1	4	5
12. (B)
13. (D) As, $(7)^3 - 8 = 335$
and $(6)^3 - 5 = 211$
Similarly, $(7)^3 - 4 = 339$
14. (A)

	D	C	
	←	→	
	Brother		
Father	↑	↓	Son
↓	A	B	↑
	←	→	
	Wife		
15. (D)
16. (A) $6 + 7 = 13 \Rightarrow 13 - 2 = 11$ (left)
 $\Rightarrow 13 + 1 = 14$ (right)
 $11 + 14 = 25 \Rightarrow 25 - 2 = 23$ (left)
 $\Rightarrow 25 + 1 = 26$ (right)
 $23 + 26 = 49 \Rightarrow 49 - 2 = 47$ (left)
 $\Rightarrow 49 + 1 = 50$ (right)
17. (C) Total number of triangles = **27**

18. (A)

I. ✓
II. ×

Hence, only conclusion I follows.
19. (A) Letters represent the men who are physicians = **A, B, C**
20. (C)
21. (A)
22. (D)
23. (A)
24. (A)
25. (D)

∴ Required number of students
 $= 45 - (10 + 7 + 4 + 4 + 3 + 5 + 4)$
 $= 45 - 37 = 8$
56. (B) Let the number of girls = x
 ATQ,
 $45 \times 2.40 + x \times 1.50 = 165$
 $\Rightarrow 1.5x = 165 - 108$
 $\Rightarrow x = 38$
57. (C) Let the capacity of tank = x litre
 ATQ,

$$\frac{x \left(1 - \frac{7}{x}\right)^2}{x} = \frac{25}{24 + 25}$$

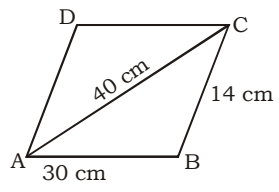
$$\Rightarrow \left(\frac{x-7}{x}\right)^2 = \frac{25}{49}$$

$$\Rightarrow \frac{x-7}{x} = \frac{5}{7}$$

$$\Rightarrow 7x - 49 = 5x$$

$$\Rightarrow x = \frac{49}{2} = 24.5$$

58. (A) ATQ,



In $\triangle ABC$,

$$S = \frac{40 + 30 + 14}{2} = 42 \text{ cm}$$

\therefore Area of the parallelogram

$$= 2 \sqrt{42(42 - 30)(42 - 14)(42 - 40)}$$

$$= 2 \sqrt{42 \times 12 \times 28 \times 2}$$

$$= 2 \times 168 = 336 \text{ cm}^2$$

59. (D) Let the length of rectangle = x and, the breadth of rectangle = y

\therefore Area = xy

New area = $\frac{3x}{4} \times \frac{y}{3} = \frac{xy}{4}$

\therefore Required change

$$= \frac{xy - \frac{xy}{4}}{xy} \times 100 = 75\%$$

60. (B) ATQ,

$$\frac{p + q + r}{3} = 2A$$

$$\Rightarrow p + q + r = 6A$$

$$\Rightarrow p^2 + q^2 + r^2 = 36A^2$$

\therefore Required mean

$$= \frac{p^2 + q^2 + r^2}{3} = \frac{36A^2}{3} = 12A^2$$

61. (C) Required number of students

$$= 84 - (43 + 24 - 11) = 28$$

62. (B) Present worth = $2520 - 420$

$$= ₹ 2100$$

Banker's discount

$$= \frac{420}{2100} \times 2520 = ₹ 504$$

63. (A) $16\frac{2}{3}\% = \frac{50}{300} = \frac{1}{6}$

Amount	Installment	
6	7	$\times 49$
36	49	$\times 7$
216	343	$\times 1$

Installment same

294	343
252	343
216	343
762	

$\therefore 762 \text{ units} = 22098$

\therefore Required annual installment

$$= \frac{22098}{762} \times 343$$

$$= ₹ 29946$$

64. (C) LCM of 6, 9, 15 and 18 = 90

Let the number = $90K + 4$, which is multiple of 7.

Least value of K , for which $90K + 4$ is divisible by 7, i.e $K = 4$

\therefore Required number

$$= 90 \times 4 + 4 = 364$$

65. (A) Required decimal

$$= \frac{1}{60 \times 60} = 0.00028$$

66. (A) Interest is half yearly

So, rate = 3% and time = 4 years

Amount = 12000

1st years - 360

2nd year - $360 + 10.8$

3rd year - $360 + 21.6 + 0.324$

4th year - $360 + 32.4 + 0.972 + 0.00972$

Compound interest

$$= 1506.10572 = ₹ 1506.11$$

67. (D) $4 \times \frac{4}{10} \times \frac{4}{100} \times \frac{4}{1000} \times 40 = 0.01024$

68. (B) Let the present age of person

ATQ,

Age of person = $(x + 4)4 - 4(x - 4)$

$$\Rightarrow x = 4x + 16 - 4x + 16$$

$$\Rightarrow x = 32$$

69. (C) Let after x years price of product A will 60 paise more than product B.

ATQ,

$$.60x + 6.40 - 9.20 - 0.26x = .60$$

$$\Rightarrow 0.34x = .60 + 2.8$$

$$\Rightarrow x = \frac{3.4}{.34} = 10$$

\therefore Required year = 2024

70. (A) Pages left after first week = $1 - \frac{7}{13} = \frac{6}{13}$

$$\begin{aligned} \text{Pages read in second week} &= \frac{6}{13} \times \frac{3}{7} \\ &= \frac{18}{91} \end{aligned}$$

$$\begin{aligned} \text{Pages after second week} &= \frac{6}{13} - \frac{18}{91} \\ &= \frac{42 - 18}{91} = \frac{24}{91} \end{aligned}$$

$$\begin{aligned} \therefore \text{Total number of pages} &= \frac{120}{24} \times 91 \\ &= 455 \end{aligned}$$

71. (B) Let the numbers are a and b.
 ATQ,
 $a + b = 45$
 and, $ab = 5 \times 130 = 650$
 $\therefore \frac{1}{a} + \frac{1}{b} = \frac{a+b}{ab} = \frac{45}{650} = \frac{9}{130}$

72. (A) $297 \times \frac{5}{11} \times 39 \div 13 + x = 299 \div 13 + 453$
 $\Rightarrow 27 \times 5 \times 3 + x = 23 + 453$
 $\Rightarrow x = 476 - 405$
 $\Rightarrow x = 71$

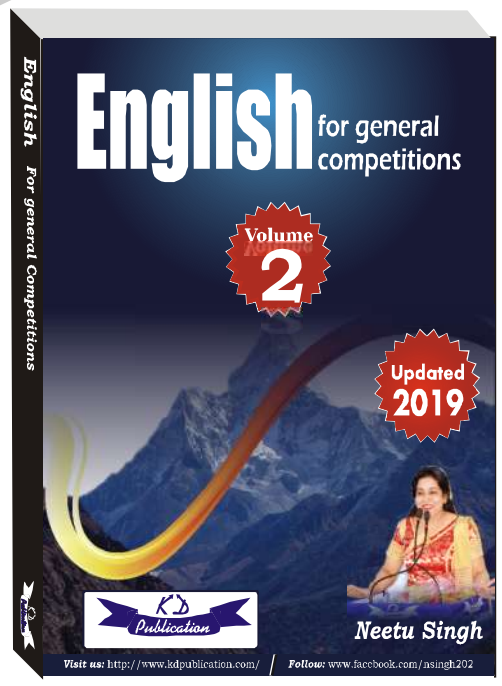
73. (A) Let the total number of students = 100
 Number of students who study English only = $60 - 15 = 45$
 Number of students who study Physics only = $55 - 15 = 40$
 Total number of boys who study only English and only Physics = $\frac{45 \times 2}{5} + \frac{40 \times 3}{5} = 42$
 Total number of girls who study only English and only Physics = $\frac{45 \times 3}{5} + \frac{40 \times 2}{5} = 43$
 \therefore Required percentage = $\frac{42}{43} \times 100 = 97.67$

74. (A) Let cost price = x
 and, selling price = y

ATQ,
 $(2y - x) = (y - x)3$
 $y = 2x$
 $\frac{x}{y} = \frac{1}{2}$

$$\therefore \text{Required profit \%} = \frac{1}{1} \times 100 = 100$$

75. (C) Let the original price of sugar = ₹ x /kg
 ATQ,
 $\frac{15 \times 5}{4x} - \frac{15}{x} = 3$
 $\Rightarrow \frac{75 - 60}{4x} = 3$
 $\Rightarrow x = \frac{15}{12} = ₹ 1.25$
 \therefore Original price = ₹ 1.25/kg

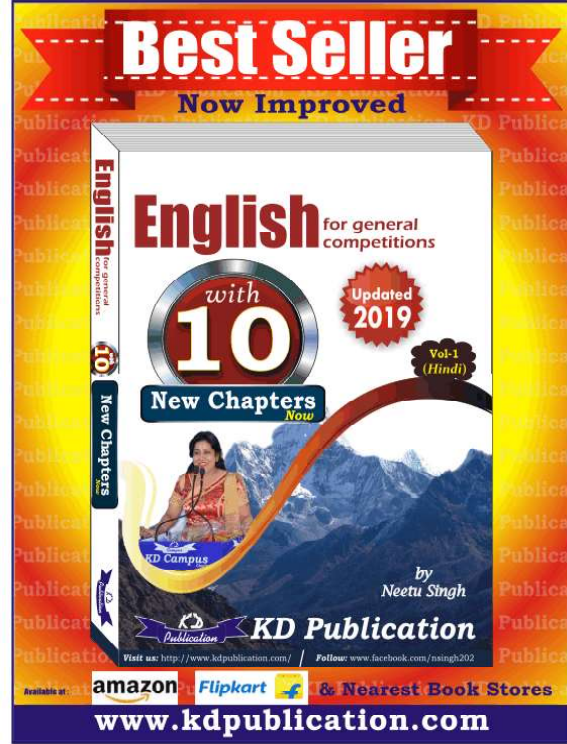


MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Lucrative	producing a great deal of profit.	लाभदायक
Wealthy	having a great deal of money, resources, or assets; rich	समृद्ध
Drowsy	sleepy and lethargic	सुस्त
Lively	full of life and energy	फुर्तीला
Puny	small and weak	छोटा
Yell	a loud, sharp cry of pain, surprise, or delight	चिल्लाना
Shriek	utter a high-pitched piercing sound or words, especially as an expression of terror, pain, or excitement	चीख
Whisper	speak very softly using one's breath rather than one's throat	फुसफुसाना
Reluctant	unwilling and hesitant; disinclined	अनिच्छुक
Uncertain	not able to be relied on; not known or definite	अनिश्चित
Eager	strongly wanting to do or have something	इच्छुक
Extrovert	an outgoing, socially confident person	बहिर्मुखी
Narcissist	a person who has an excessive interest in or admiration of themselves	अंतर्मुखी
Lunatic	a person who is mentally ill	सनकी
Archeology	the study of human history and prehistory through the excavation of sites and the analysis of artefacts and other physical remains	पुरातत्व विज्ञान
Astrology	the study of the movements and relative positions of celestial bodies interpreted as having an influence on human affairs and the natural world	ज्योतिष शास्त्र
Anatomy	a study of the structure or internal workings of something	शरीर रचना विज्ञान
Hygiene	conditions or practices conducive to maintaining health and preventing disease, especially through cleanliness	स्वच्छता

DP HEAD CONSTABLE – 02 (ANSWER KEY)

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



76. (C) Use 'an' inspite of 'a'.
77. (A) Sentence is in present perfect.
use 'has been' in place of 'has'.
78. (C) Replace 'angry' with 'angriness'.
80. (A) 'Information' takes preposition 'about' after it.
89. (A) Sentence is in past tense.

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