

**DP HEAD CONSTABLE – 03 (SOLUTION)**

1. (B) An optimist is a person whose perspective is cheerful while **pessimist** is the person whose perspective is **Gloomy**.

2. (B) As, F R O M  
           ↓ ↓ ↓ ↓  
           6+ 18+ 15+ 13 ↓  $\frac{52}{4} = 13$

Similarly, C H E C K  
               ↓ ↓ ↓ ↓ ↓  
               3 + 8 + 5 + 3 + 11 ↓  $\frac{30}{5} = 6$

3. (C) As,  $3^2 \times 4 = 36$

Similarly,  $4^2 \times 2 = 32$

4. (C) Except **ENVELOPE**, all other contains all vowels.

5. (A) Only '64' is perfect square and perfect cube number.

6. (D) Except '360', all others are in the form of  $(x^3 - x)$ .  
 and  $x = 4, 6, 7$

7. (C)

8. (A)  $1^2 + 0 = 1$   
 $2^2 + 1 = 5$   
 $3^2 + 2 = 11$   
 $4^2 + 3 = 19$   
 $5^2 + 4 = 29$   
 $6^2 + 5 = 41$

9. (B)  $\frac{27}{+31} \frac{58}{+48} \frac{106}{+69} \frac{175}{+95} \frac{270}{+17} \frac{+21} \frac{+26}{+4} \frac{+5}$

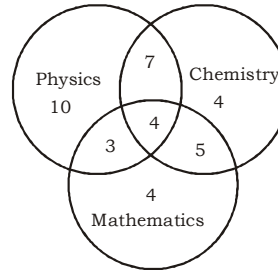
10. (A) Monika > Pratibha > Nisha > Aarti > **Meenu**

11. (B) 2 1 5 4 3 7 6  
       ↓ ↓ ↓ ↓ ↓ ↓ ↓  
**E A R W O R M**

12. (D)

13. (A)  $(6 \times 3) + 5 - 7 = 16$   
 $(3 \times 4) + 9 - 8 = 13$   
 $(7 \times 5) + 1 - 6 = 30$   
 $(5 \times 2) + 4 - 6 = 8$

14. (D)

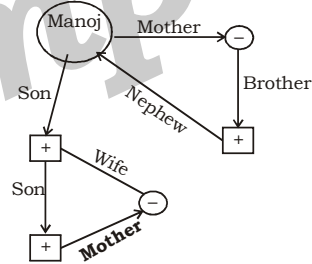


Required number of students  
 $= 45 - (10 + 7 + 4 + 4 + 3 + 5 + 4)$   
 $= 45 - 37 = 8$

15. (C) Required number of students  
 $= 10 + 4 + 4 = 18$

16. (A)  $5 \times 3 + 1 = 16$   
 $16 \times 3 + 1 = 49$   
 $8 \times 3 + 2 = 26$   
 $26 \times 3 + 2 = 80$   
 $9 \times 3 + 3 = 30$   
 $30 \times 3 + 3 = 93$

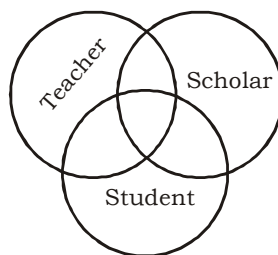
17. (A)



18. (B)  $\frac{(42 \times 8) - (21 \times 4)}{4 + 9 \times 3 + 12 \div 2}$   
 After changing the signs,  
 $= \frac{(42 - 8) \div (21 - 4)}{4 \times 9 - 3 \times 12 + 2} = \frac{34}{17 \times 2} = 1$

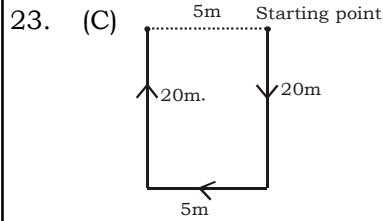
19. (B)

20. (B)



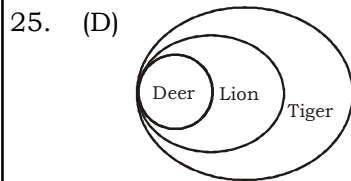
21. (A)

22. (D)



Required distance = **5 m**

24. (C) Required number of triangles = **15**



I. ×

II. ×

∴ Neither conclusion I nor II follows

56. (A) Total CP of 125 reams  
 $= 125 \times 90 + 270 + 0.60 \times 125 + 105$   
 $= 11250 + 375 + 75$   
 $= ₹ 11700$   
 ∴ Required selling price  
 $= \frac{11700 \times 110}{100 \times 125} = ₹ 102.96$

57. (A) Let the duration of the flight =  $x$  hour  
 ATQ,

$$\frac{600}{x} - \frac{600}{x + \frac{1}{2}} = 200$$

$$\Rightarrow \frac{1200x + 600 - 1200x}{x(2x + 1)} = 200$$

$$\Rightarrow 2x^2 + x - 3 = 0$$

$$\Rightarrow 2x^2 + 3x - 2x - 3 = 0$$

$$\Rightarrow (x - 1)(2x + 3) = 0 \Rightarrow x = 1$$

58. (B) Distance =  $\frac{42 \times 40}{60} = 28$  km

∴ Required speed =  $\frac{28}{30} \times 60 = 56$  km

59. (B) Required ratio =  $\frac{3}{4} \times \frac{8}{13} \times \frac{13}{2} = 3 : 1$

60. (C) Let initial ratio =  $2x : 3x : 4x$   
 New ratio =  $4y : 5y : 3y$   
 and,  $4x = 3y$

$$\therefore 2 \times \frac{3}{4}y : 3 \times \frac{3}{4}y : 4 \times \frac{3}{4}y$$

$$6y : 9y : 12y$$

$$\text{and, } 4 \times \frac{4}{3}x : 5 \times \frac{4}{3}x : 3 \times \frac{4}{3}x$$

$$\Rightarrow 16x : 20x : 12x$$

Increment in first = 10

Increment in second = 11

∴ Required ratio = 10 : 11

61. (D) SI for  $1\frac{1}{2}$  years =  $1435.5 - 1206$   
 $= ₹ 229.5$

$$\text{SI for 2 years} = 229.5 \times \frac{2}{3} \times 2 = ₹ 306$$

∴ Required amount =  $1206 - 306 = ₹ 900$

$$\text{and, required rate} = \frac{306 \times 100}{900 \times 2} = 17\%$$

62. (A) Area of the wet surface  
 $= 2(lb + bh + lh) - lb$   
 $= 2(6 \times 2.25 + 8 \times 2.25) + 6 \times 8$   
 $= 2(13.5 + 18) + 48$   
 $= 111 \text{ m}^2$

63. (D)  $\frac{x^3 + y^3 + z^3 - 3xyz}{x - y + z}$

$$= \frac{1}{2} \frac{(x + y + z)[(x - y)^2 + (y - z)^2 + (z - x)^2]}{x - y + z}$$

$$= \frac{1}{2} \frac{(9999 + 10000 + 10001)[(-1)^2 + (-1)^2 + (2)^2]}{9999 + 10001 - 10000}$$

$$= \frac{1}{2} \frac{30000 \times 6}{10000} = 9$$

64. (C) ATQ,

$$x^2 + \frac{1}{x^2}$$

$$\Rightarrow \left(x + \frac{1}{x}\right)^2 - 2 = 79$$

$$\Rightarrow x + \frac{1}{x} = \sqrt{81} = 9$$

65. (B) ATQ,

$$(7x)^2 + (8x)^2 = 7232$$

$$\Rightarrow 49x^2 + 64x^2 = 7232$$

$$\Rightarrow 113x^2 = 7232$$

$$\Rightarrow x = \sqrt{64} = 8$$

∴ Required sum =  $7 \times 8 + 8 \times 8 = 120$

66. (B) Volume of larger sphere = volume of smaller sphere + volume of cylinder

$$\therefore \frac{4}{3}\pi(12)^3 = \frac{4}{3}\pi(8)^3 + \pi(8)^2 \times h$$

$$\Rightarrow \frac{4}{3}(1728 - 512) = 64 \times h$$

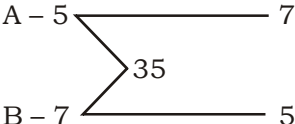
$$\Rightarrow h = \frac{4 \times 1216}{64 \times 3} = 25.3 \text{ cm}$$

67. (C) Required percentage =  $\frac{32000 \times 15 \times 52}{16 \times 100}$   
 = 15600

68. (C) Total population of all village = x  
 Population of village T = 21% of x  
 Below poverty population of T = 46% of 21% of x  
 Population of village Z = 11% of x  
 Below poverty population Z = 42% of 11% of x  
 Required ratio =  
 $46\% \times 21\% \times x : 42\% \times 11\% \times x$   
 =  $46 \times 21 : 42 \times 11 = 23 : 11$

69. (C) ATQ,  
 38% → 12160  
 1% → 320  
 100 → 32000 (village × population)  
 ∴ population of village X = 32000  
 16% → 32000  
 1% → 2000  
 11% → 22000 (village Z population)  
 = 22000

70. (D) Population village y in 1997 = 30000 (given)  
 Let the population of village V in 1997 U  
 $15 : 10 = 30000 : V \Rightarrow V = \frac{30000 \times 10}{15}$   
 $V = 20000$   
 Now, population of village V in 1998  
 = 20000 + (10% of 20000) = 22000  
 Population of village V below poverty line in 1998 = 58% of 22000 = 12760

71. (A) A.T.Q,  


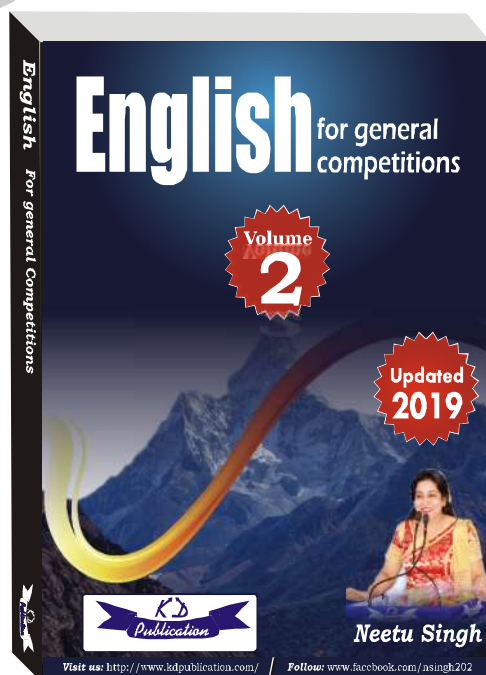
∴ Total time taken by A and B =  $5\frac{4}{5}$  days

72. (B) Let the no. be 30 and 28 respectively.  
 then, the sum of number = 30 + 28 = 58  
 Now, divide the number by 17, then we have 7 as the remainder.

73. (B) A will cover a distance of = 600 - 120 = 480 m  
 When A runs 5 m, then B runs 6 m  
 ∴ When A runs 480 m, then B runs  
 =  $\frac{6}{5} \times 480 = 576 \text{ m}$   
 ∴ A wins by = 600 - 576 = 24 m

74. (C) Speed of sound =  $\frac{6640}{20} = 332 \text{ m/sec}$

75. (C) Let marks scored by first student = x  
 ATQ,  
 $\left(\frac{x + x - 31.5}{100}\right) \times 64 = x$   
 $\Rightarrow 128x - 2016 = 100x$   
 $\Rightarrow x = 72$   
 ∴ Number scored by second student =  
 $72 - 31.5 = 40.5$

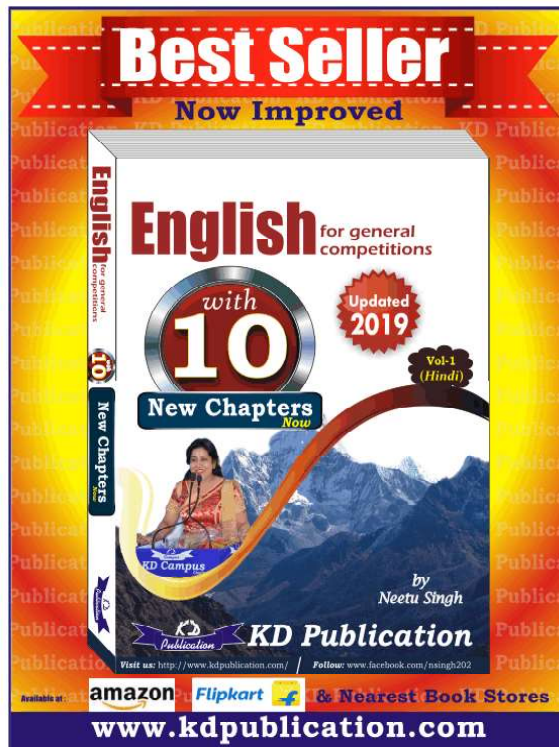


## MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Elongate	to make something longer or to grow longer	बढ़ाना
Hydroplane	when a car goes out of control and skims along the surface of a wet road	हाइड्रोप्लेन
Reconnoiter	to go to a place or area in order to find out information about a military enemy	अन्वेषण
Precariously	not safe	जोखिम
Gingerly	very cautious or careful	सावधानी से
Wheedle	to persuade someone to do something or to give you something by saying nice things	खुशामद से मना लेना
Plead	to ask for something in a serious and emotional way	निवेदन करना
Wretched	very bad or unpleasant	घृणायोग्य
Nebulous	not clear, difficult to see, understand, describe, etc.	अस्पष्ट
Vertiginous	inclined to frequent and often pointless change inconstant	अस्थिर
Litigious	tending or likely to engage in lawsuits	विवादी
Lowly	in a humble or meek manner	नम्र
Cynomania	an abnormal love of dogs	कुत्तों के लिए प्यार
Atheist	a person who believes that God does not exist	नास्तिक
Pandemonium	a wild uproar	विप्लव
Parody	a piece of writing, music, etc., that imitates the style of someone or something else in an amusing way	हास्यानुकृति
Sonnet	a poem made up of 14 lines that rhyme in a fixed pattern	गाथा
Opprobrium	very strong disapproval or criticism of a person or thing especially by a large number of people	अपमान, तिरस्कार
Repentance	to feel or show that you are sorry for something bad or wrong that you did and that you want to do what is right	पछतावा

**DP HEAD CONSTABLE – 03 (ANSWER KEY)**

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



76. (B) Change 'send' into 'sent' because here 'get' and 'have' are used as causative verbs, so the main verb should be in V<sub>3</sub> form.
77. (A) Change 'of' into 'to' because 'assent' takes fixed preposition 'to' after it, which means to 'express approval'.
90. (B) 'Not only' will be used just before 'by'

- because 'not only... but also' is a conjunction pair where the subsequent part 'but also' has been used just before the preposition 'with'.
91. (A) Change 'will see' into 'see' because the sentence is in simple present 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**