

**SSC MOCK TEST - 229 (SOLUTION)**

1. (C) 
$$\begin{array}{cccccccccccc}
 2 & 5 & 10 & 17 & 26 & 37 & 50 & 65 & 82 & 101 \\
 +3 & +5 & +7 & +9 & +11 & +13 & +15 & +17 & +19 \\
 \end{array}$$

2. (C) 
$$\begin{array}{cccccccccccccccc}
 P & S & V & U & X & A & Z & C & F & E & H & K & J & M & P \\
 +3 & +3 & -1 & +3 & +3 & -1 & +3 & +3 & -1 & +3 & +3 & -1 & +3 & +3 \\
 \end{array}$$

3. (B) 
$$\begin{array}{cccccccc}
 X & R & M & I & F & D & C \\
 \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 -6 & -5 & -4 & -3 & -2 & -1
 \end{array}$$

4. (D) Jaipur → Rajasthan → North India → India → Asisa

5. (D) Except Sodium, all elements are alkaline Earth metal.

6. (B) From options

A → 
$$\begin{array}{cccccc}
 U & V & Y & C & H \\
 \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 +1 & +3 & +4 & +5
 \end{array}$$

B → 
$$\begin{array}{cccccc}
 J & K & N & R & V \\
 \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 +1 & +3 & +4 & +4
 \end{array}$$

C → 
$$\begin{array}{cccccc}
 G & H & K & O & T \\
 \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 +1 & +3 & +4 & +5
 \end{array}$$

D → 
$$\begin{array}{cccccc}
 P & Q & T & X & C \\
 \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 +1 & +3 & +4 & +5
 \end{array}$$

7. (A) From options

A → 13 : 170 → 13 : 13<sup>2</sup> + 1

B → 11 : 120 → 11 : 11<sup>2</sup> - 1

C → 5 : 24 → 5 : 5<sup>2</sup> - 1

D → 7 : 48 → 7 : 7<sup>2</sup> - 1

8. (C) As, AU = 1 × 21 = 21  
 And, EGG = 5 × 7 × 7 = 245  
 Similarly, BAKE = 2 × 11 × 11 × 5 = 110

9. (D) 19 : 400 :: 24  
 $19 + 1 \rightarrow 20^2 \rightarrow 400$   
 $24 + 1 \rightarrow 25^2 \rightarrow 625$

10. (A) 
$$\begin{array}{cccccc}
 & & +1 & & & \\
 & & \downarrow & & & \\
 A & F & K & P & B & G & L & Q \\
 & \uparrow \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 & +1 & & +1 & & +1 & & +1 \\
 & \uparrow \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 & +1 & & +1 & & +1 & & +1 \\
 \end{array}$$

Similarly,

$$\begin{array}{cccccc}
 G & L & Q & V & H & M & R & W \\
 & \uparrow \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 & +1 & & +1 & & +1 & & +1 \\
 & \uparrow \downarrow \uparrow \downarrow \uparrow \downarrow \uparrow \\
 & +1 & & +1 & & +1 & & +1 \\
 \end{array}$$

11. (B)

12. (D)

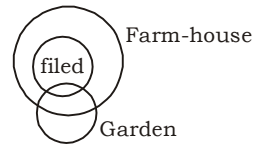
13. (C) cad/bab/cad/bab/cad/bab

14. (C) As, 
$$\begin{array}{cccccccc}
 Y & O & G & H & U & R & T \\
 \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \\
 25 & 15 & 7 & 8 & 21 & 18 & 20
 \end{array}$$

Similarly,

$$\begin{array}{cccccccc}
 D & E & V & E & L & O & P \\
 \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \\
 4 & 5 & 22 & 5 & 12 & 15 & 16
 \end{array}$$

15. (A) **Statements:**



**Conclusions:**

I. (✓) II. (✓) III. (✓)

∴ All the conclusions I, II and III follow.

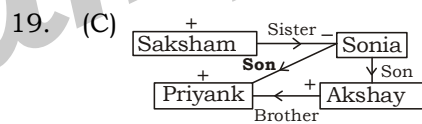
16. (B)

17. (B) ACCIDENT T NEDICCA

Similarly

PASSENGER REGENSSAP

18. (C)



20. (C)  $4 \times 5 - 24 \div 12 + 8 = 14$   
 After interchanging the signs,  
 $= 4 \times 5 + 24 \div 12 - 8$   
 $= 20 + 2 - 8$   
 $= 14$   
 Hence, option (C) satisfies the given equation.

21. (A)

22. (C) from figure II and III

$$\begin{array}{ccc}
 5 & 2 & 6 \\
 5 & 1 & 4
 \end{array}$$

∴ '6' will appear opposite of 4.

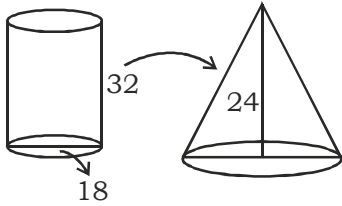
23. (D)

24. (B)

25. (A)  $7^2 + 8^2 = 113$   
 $11^2 + 12^2 = 265$   
 $14^2 + 9^2 = 277$

27. (D) Adolf Hitler forbade three Germans, Richard Kuhn (Chemistry, 1938), Adolf Butenandt (Chemistry, 1939), and Gerhard Domagk (Physiology or Medicine, 1939), from accepting their Nobel Prizes, and the government of the Soviet Union pressured Boris Pasternak (Literature, 1958) to decline his award. Two Nobel laureates, Jean-Paul Sartre (Literature, 1964) and Le Due Tho (Peace, 1973), declined the award.
28. (D) Warren Hastings (1773-85) : Asiatic Society was founded by Sir William Jones on 15 January 1784. Isha Mohammad was its President.  
Charles Metcalfe (1835-36) : Calcutta Public Library (National Library of India was Established in 1836.  
John Lawrence (1864-69) : Allahabad High Court (Prayagraj) was established on 17 March 1866.  
Lord Irwin (1926-31)  
Reserve Bank of India was established on 1 April 1935.
29. (B) The Battle of Sirhind was fought between the Mughal Empire and the Suri Empire in 1555.  
Battle of Ghaghra (1529) fought between Babur and Afgan confederates.  
Battle of Chausa (1539) fought between Humayun and Sher Shah Suri.  
Battle of Chanderi -1528
30. (A) UK - Parliamentary government, Rule of Law, Legislative procedure, Single Citizenship, Cabinet system, Prerogative writs, Parliamentary privileges and Bicameralism.  
South Africa-Procedure for amendment in the Indian Constitution and Election of members of Rajya Sabha.  
France- Republic and Ideals of liberty, equality and fraternity in the Preamble.
31. (B) Third Plan - (1961-1966)  
Fifth Plan - (1974-1979)  
Rolling Plan - (1978-1980)  
Seventh Plan - (1985-1990)  
Ninth Plan - (1997-2002)
32. (C) Other components are cash Reserve Ratio, Statutory liquidity Ratio, Bank Rate, Reverse Repo Rate and Open Market Operations.
34. (B) 27 degree centigrade latitude passes through Gangtok and Alwar.
35. (C) The author of the novel 'Darkness at Noon' is Authur Koestler.  
The author of the novel 'The Sound and the Fury' is William Faulkner.
37. (D) Siderite ( $\text{FeCO}_3$ ) is a mineral composed of Iron Carbonate.
38. (A) Light - A unit of astronomical distance equivalent to the distance that light travels in one year ( $9.4607 \times 10^{12}$  km).
43. (A) Maitree Bus - India and Bangladesh.
45. (A) **Strait/ Isthamus** **Landmasses Separated**  
Strait of Gibraltar Africa and Europe  
Palk Strait India and Sri Lanka  
Isthmus of Panama North and South America
47. (B) Sofia Kenin won the Women's Singles of Australian Open 2020.
48. (D) Four others who have been awarded Posthumously-  
George Fernandes, Arun Jaitley, Sushma Swaraj (Public Affairs) and Pejavara Adhokaja Matha Udupi (Others-Spiritualism)
49. (A) Raja Reddy is associated with Kuchipudi.
50. (D) 1 December - World Aids Day  
4 December - Navy Day  
10 December - Human Rights Day
51. (C) Required amount  
$$= \left[ \left( 2000 \times \frac{1}{2} \times \frac{3}{4} \right) + 50 \right] \times \frac{8}{5} = ₹1280$$
52. (C) ATQ,  
8A5146B is divisible by 8  
 $\Rightarrow$  8A5146B is divisible by 8, 11  
8A5146B is divisible by 8  
 $\Rightarrow$  46B is divisible by 8  
 $\Rightarrow$  B = 4  
8A51464 is divisible by 11  
 $\Rightarrow$  + 4 - 6 + 4 - 1 + 5 - A + 8 is divisible by 11  
 $\Rightarrow$  21 - 7 - A divisible by 11  
 $\Rightarrow$  14 - A divisible by 11  
 $\Rightarrow$  A = 3  
 $\Rightarrow$  A  $\times$  B = 4  $\times$  3 = 12

53. (C)



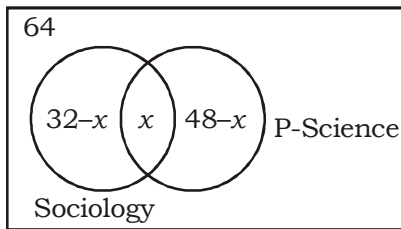
Volume of cylinder = volume of cone

$$\pi r^2 h = \frac{1}{3} \pi r_1^2 h_1$$

$$\pi \times 18 \times 18 \times 32 = \frac{1}{3} \pi \times r^2 \times 24$$

$$r = 36 \text{ cm}$$

54. (D) Let  $x$  be the number of students who has taken both subjects.



Sociology students =  $64 \times 50\% = 32$

P. Science students =  $64 \times 75\% = 48$

Now,

$$(32 - x) + x + (48 - x) = 64$$

$$\Rightarrow 32 + 48 - x = 64$$

$$\Rightarrow x = 80 - 64 = 16$$

55. (B)  $9^{(2x-1)} - 81^{(x-1)} = 1944$

$$\Rightarrow 3^{(2(2x-1))} - (3)^{(4(x-1))} = 1944$$

$$\Rightarrow 3^{(4x-2)} - (3)^{(4x-4)} = 1944$$

$$\Rightarrow 3^{(4x-2+2)} - 4^{4x-4} = 1944$$

$$\Rightarrow 3^{(4x-4)} [3^2 - 1] = 1944$$

$$\Rightarrow 3^{4x-4} \cdot 8 = 1944$$

$$\Rightarrow 3^{4x-4} = 243$$

$$\Rightarrow 3^{4x-4} = 3^5$$

$$\Rightarrow 4x - 4 = 5$$

$$\Rightarrow x = \frac{9}{4}$$

56. (D) A.T.Q,

Let numbers are  $x, y$  and  $73$

$$xy \times 73 - xy \times 37 = 720$$

$$xy = 20$$

minimum value of  $x^2 + y^2$

$$x = 20$$

$$x = 2\sqrt{5} \text{ and } y = 2\sqrt{5}$$

$$\text{minimum value} = x^2 + y^2 = 2 \times x^2$$

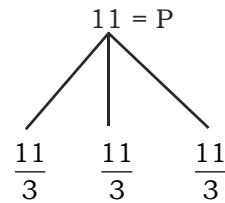
$$= 2 \times (2\sqrt{5})^2$$

$$= 2 \times 4 \times 5 = 40$$

57. (D) A : B

$$64,000 : 112,000$$

After C join total profit 11 units is divided among three



A : B

$$4 - \frac{11}{3} \quad 7 - \frac{11}{3}$$

↓                      ↓  
Loss of A      Loss of B

$$11 \rightarrow 2,20,000$$

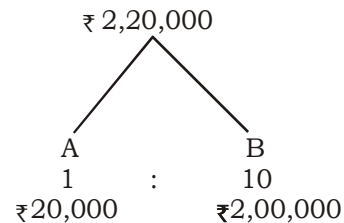
$$1 \rightarrow 20,000$$

$$A : B : C$$

$$4 : 7$$

$$\frac{11}{3} : \frac{11}{3} : \frac{11}{3}$$

$$\frac{1}{3} : \frac{10}{3}$$



58. (A)  $\angle CAD = \angle CBD$  (Angles in the same segment of a circle)

$$= 60^\circ$$

$$\text{Now } \angle BAD = \angle BAC + \angle CAD$$

$$= 30 + 60^\circ = 90^\circ$$

$$\text{Now } \angle BAD + \angle BCD = 180^\circ$$

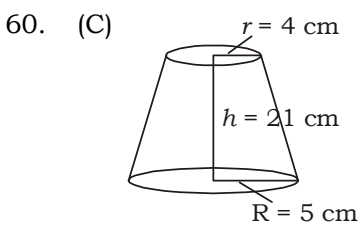
( $\therefore \square ABCD$  is cyclic)

$$\Rightarrow 90^\circ + \angle BCD = 180^\circ$$

$$\Rightarrow \angle BCD = 180^\circ - 90^\circ = 90^\circ$$

59. (B) Let principal  $x = 10000$  units  
 rate  $r = 7.5\%$   
 Ist year  $\rightarrow 750$   
 IInd year  $\rightarrow 750 \ 56.25$   
 Difference between CI and SI  
 $56.25$  units  $\rightarrow ₹45$   
 Principal  $x = 10000$  units  

$$= \frac{45 \times 10000}{56.25} = ₹8000$$



Volume of frustum

$$= \frac{\pi h}{3} (R^2 + rR + r^2)$$

$$= \frac{22}{7} \times \frac{21}{3} [(5)^2 + 5 \times 4 + (4)^2]$$

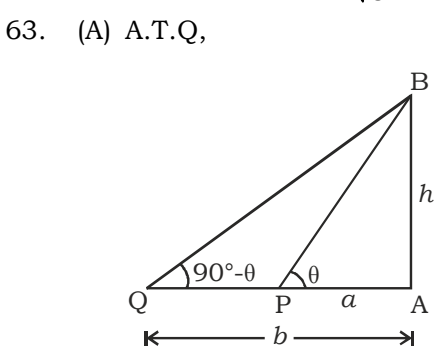
$$= 22(25 + 20 + 16)$$

$$= 22 \times 61$$

$$= 1342 \text{ cm}^3$$

61. (C)  $\cot^2 62^\circ - \sec^2 28^\circ + \operatorname{cosec}^2 30^\circ + \tan^2 60^\circ$   
 $= \cot^2 62^\circ - \sec^2 (90^\circ - 62^\circ) + (2)^2 + (\sqrt{3})^2$   
 $= -1 + 4 + 3 = 6$

62. (B)  $3\cos^2 A + 7\sin^2 A = 4$   
 $3\cos^2 A + 7\sin^2 A = 4\sin^2 A + 4\cos^2 A$   
 $3\sin^2 A = \cos^2 A$   
 $\tan^2 A = \frac{1}{3}$   
 $\tan A = \frac{1}{\sqrt{3}}$   
 $A = 30^\circ$   
 $\cot A = \cot 30^\circ = \sqrt{3}$



Here,  $h =$  height of tower AB

$$\tan \theta = \frac{h}{a} \quad \dots(i)$$

$$\tan(90^\circ - \theta) = \frac{h}{b}$$

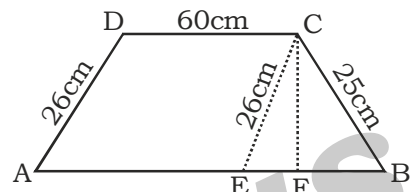
or,  $\cot \theta = \frac{h}{b}$

$$\Rightarrow \tan \theta = \frac{b}{h} \quad \dots(ii)$$

From equation (i) and (ii)

$$\frac{h}{a} = \frac{b}{h} \Rightarrow h = \sqrt{ab}$$

64. (B) A.T.Q,



$\square ABCD$  is a trapezium  
 Draw  $CE \parallel DA$  intersecting  $AB$  at  $E$ .  
 $\Rightarrow \square ABCE$  is a  $\parallel$  gm.  
 $\Rightarrow DA = CE = 26$  cm

In  $\triangle BCE$ ,

$$S = \frac{17 + 25 + 26}{2} = \frac{68}{2} = 34$$

Area ( $\triangle BCE$ ),

$$= \sqrt{34(34 - 17)(34 - 25)(34 - 26)} \text{ cm}^2$$

$$= \sqrt{34 \times 17 \times 9 \times 8}$$

$$= \sqrt{2 \times 17 \times 17 \times 3 \times 3 \times 2 \times 2 \times 2}$$

$$= 2 \times 2 \times 3 \times 17 = 204 \text{ cm}^2$$

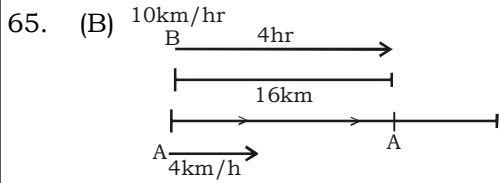
$$\Rightarrow \frac{1}{2} \times BE \times \text{height} = 204$$

or,  $\frac{1}{2} \times 17 \times CM = 204$

$$\Rightarrow CM = \frac{204 \times 2}{17} = 24 \text{ cm}$$

Area (Trap. ABCD)  $= \frac{1}{2} \times (60 + 77) \times 24$

$$= \frac{1}{2} \times 137 \times 24 = 1644 \text{ sq. cm}$$



Distance covered by A in 4 hr.  
 $= 4 \times 4 = 16 \text{ km}$

A caught by B in  $= \frac{16}{10 - 4} = \frac{16}{6} \text{ hr.}$

Distance from starting point

$= \frac{16}{6} \times 10 = \frac{16}{3} \times 5 = \frac{80}{3} = 26.67 \text{ km}$

66. (A) ATQ,

Single discount

$= 2000 \times \frac{30}{100} = ₹ 600$

Now, two successive discount

$= 2000 \times \frac{25}{100} = ₹ 500$

$= (2000 - 500) \times \frac{5}{100} = ₹ 75$

After two successive discount  $= (500 + 75)$   
 $= ₹ 575$

The difference between discounts  $= 600$   
 $- 575 = ₹ 25$

67. (A) ATQ,

1 Woman = 3 Men

1 Boy =  $\frac{1}{2}$  Man

Total work  $= (3m + 4w + 6h) \times 6$

$= (3m + 4 \times 3m + 6 \times \frac{1}{2} m) \times 6$

$= 18m + 6 = 108m$

Let  $x$  woman complete the work in 4 days

$xw \times 4 = 108m$

$x \times 3m \times 4 = 108m$

$x = 9 \text{ Days}$

68. (D) ATQ,

$200m \times 150m \times 8m = 0.3m \times 0.2m$

$\times \frac{20,000m}{hr} \times t$

$\Rightarrow 240000 = 1200t$

$\Rightarrow t = 200 \text{ hrs}$

69. (C)  $\frac{A}{3} = \frac{B}{2} = \frac{C}{5} = K$

Now,

$A = 3k, B = 2k, C = 5k$

$(C + A)^2 : (A + B)^2 : (B + C)^2$

$= (5 + 3)^2 : (3 + 2)^2 : (2 + 5)^2$

$= 8^2 : 5^2 : 7^2$

$= 64 : 25 : 49$

70. (B) The total data of production of cars of type E = 180

180 units are representing  $360^\circ$ .

Then, the data of production of cars in 2013

$\therefore 180 \xrightarrow{\text{Duble}(\times 2)} 360^\circ$

$\therefore 42 \xrightarrow{\times 2} 84^\circ$

71. (A) Total production of cars of type A in 2014 and type C in 2013  $= (48 + 36) = 84$

Total production of cars of type B in 2016 and type E in 2015

$= (56 + 35) = 91$

Then, Ratio  $= 84 : 91 = 12 : 13$

72. (A) Total production of type B cars in 2012, 2014 and 2015  $= 120$

Total production of type A car in 2013 and 2016  $= 91$

Required percentage

$= \frac{120 - 91}{91} \times 100 = \frac{29}{91} \times 100$

$= 31.9\%$

73. (D) Average of car type D

$= \frac{51 + 24 + 30 + 46 + 54}{5} = \frac{205}{5} = 41$

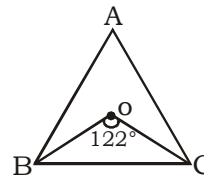
No. of years = '2'.

74. (D)  $2 \times 3 \div 2$  of  $3 \times 2 \div (4 + 4 \times 4 \div 4 \text{ of } 4 - 4 \div 4 \times 4)$

$\Rightarrow 2 \times 3 \div 6 \times 2 \div (4 + 4 \times 4 \div 16 - 1 \times 4)$

$\Rightarrow 2 \div (4 + 1 - 4) = 2$

75. (A)



By theorem,

$\angle BOC = 90^\circ + \frac{\angle A}{2}$  (By property)

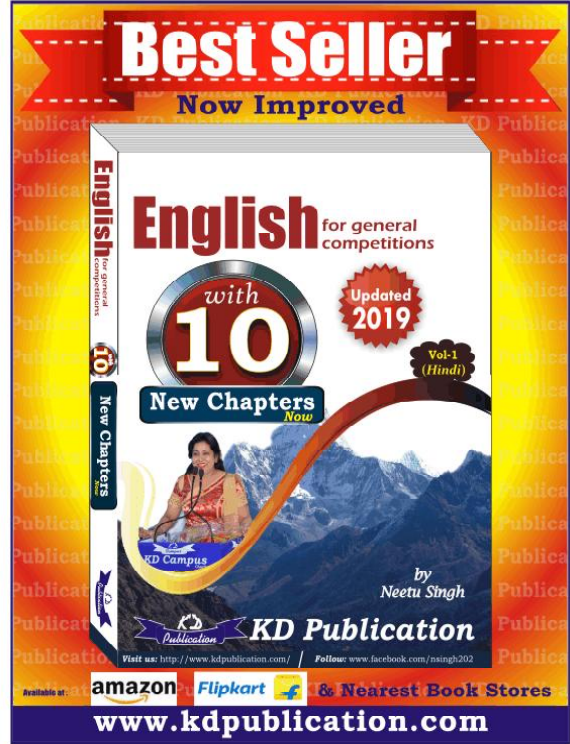
$\Rightarrow 122^\circ - 90^\circ = \frac{\angle A}{2} \Rightarrow \angle A = 64^\circ$

## MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Abundance	a very large quantity of something	प्रचुरता
Acquisitive	excessively interested in acquiring money or material things	प्राप्त करने की लालसा वाला
Adept	very skilled or proficient at something	निपुण
Avaricious	having or showing an extreme greed for wealth or material gain.	लालची
Benevolent	kind	भलाई करने वाला
Cauldron	a large metal pot with a lid and handle, used for cooking over an open fire.	कड़ाही
Contemptible	deserving contempt; despicable	घिनौना
Covetous	having or showing a great desire to possess something belonging to someone else.	ललायित
Critical	serious, expressing adverse or disapproving comments or judgements	नाजुक, आलोचनात्मक
Crucial	decisive or critical, especially in the success or failure of something.	महत्वपूर्ण
Imperative	of vital importance; crucial	अनिवार्य
Initiate	cause (a process or action) to begin	आरंभ
Invade	(of an armed force) enter (a country or region) so as to subjugate or occupy it.	आक्रमण करना
Kind-hearted	having a kind and sympathetic nature	दयालु
Mercenary	primarily concerned with making money at the expense of ethics.	जो सिर्फ पैसों के लिए काम करता हो
Pivotal	of crucial importance in relation to the development or success of something else.	केंद्रीय
Skillet	a small metal cooking pot with a long handle, typically having legs.	पैन
Trivial	of little value or importance.	तुच्छ
Wreath	an arrangement of flowers, leaves, or stems fastened in a ring and used for decoration or for laying on a grave.	माला (कब्र में चढ़ाने वाला)

**SSC MOCK TEST - 229 (ANSWER KEY)**

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



**Correction Mock Test 229**

17. In a code language, ACCIDENT is coded as TNEDICCA. How would PASSENGER be coded in that language.

किसी कूट भाषा में, ACCIDENT को ATNEDICCA लिखा जाता है। उसी कूट भाषा में PASSENGER को क्या लिखा जाएगा?

- (A) REGNSESAP (B) REGNESSAP  
(C) REGMESSAP (D) RGENESSAP

76. (C) Use 'in' inspite of 'at'.  
77. (\*) By mistake Noun Verb is not there.  
78. (B) Tormenting inflicting severe physical or mental suffering.  
**Invoking:-** call on (a deity or spirit) in prayer.  
**Cursing:-** शाप देना भला-बुरा बोलना  
79. (A) **Rarefied:-** of air of low pressure than usual.  
**Exalted:-** of high rank, elevated.  
86. (C) Sentence is in past form, so past Indefinite is used here. Thus, we should place 'visited' in place of 'visit'.  
87. (D) 'highlights' in place of 'highlight', because it is present indefinite tense and Singular Noun is followed by s/es.

**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**