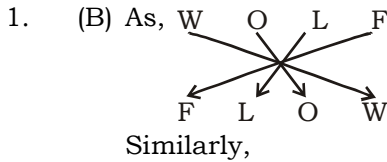
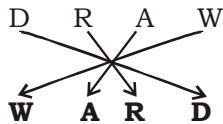


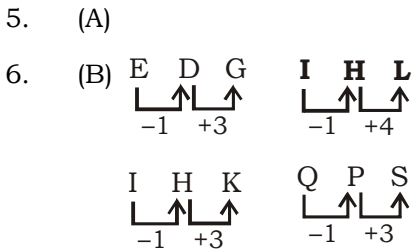
SSC MOCK TEST - 221 (SOLUTION)



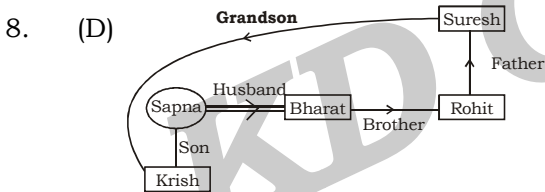
Similarly,



2. (C) As, $17 \times 6 = 102$
Similarly, $23 \times 6 = 138$
3. (D) As, Screw Driver is used for Screw.
Similarly, **Hammer** is used for Nail.
4. (B) $56 : 49 = 7 \times 8 : 7 \times 7$
 $64 : 54 = 8 \times 8 : 9 \times 6$
 $104 : 91 = 13 \times 8 : 13 \times 7$
 $32 : 28 = 4 : 8 : 4 \times 7$

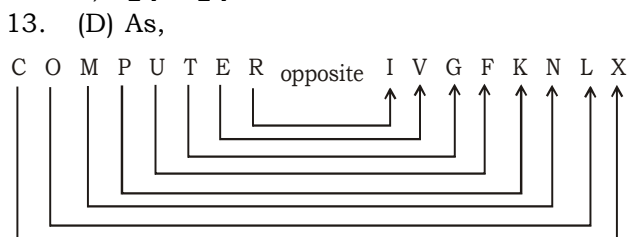


7. (B) Infant - Child - Education - Employment - Marriage

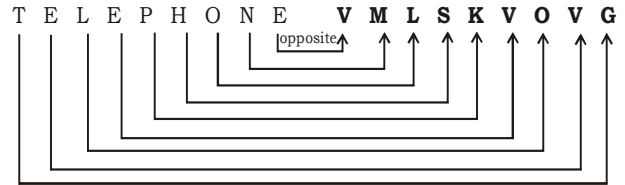


9. (C) As, $(19 + 20) \times 2 = 78$
and, $(25 + 47) \times 2 = 144$
Similarly, $(16 + 13) \times 2 = 58$
10. (A)
-

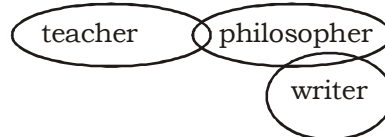
11. (C) **cadbab/cadbab/cadbab**
12. (B) $8 \times 2 + 5 - 16 \div 4 = 14$
After interchanging the signs
 $\Rightarrow 8 + 2 \times 5 - 16 \div 4 = 14$
 $\Rightarrow 8 + 10 - 4 = 14$
 $\Rightarrow 14 = 14$



Similarly,



14. (D)
-
15. (A) ATQ,
Difference between both dates
 $= 28 + 31 + 30 + 31 + 31 + 30 + 28$
 $= 29 \text{ weeks} + 6 \text{ days}$
Hence, Required days = Sunday + 6 days
= Saturday
16. (B) As, HEAD = $(8 + 5 + 1 + 4) \times 2 + 1 = 37$
and, BANK = $(2 + 1 + 14 + 11) \times 2 + 1 = 57$
Similarly, KITE = $(11 + 9 + 20 + 5) + 1 = 91$
17. (B) Order of height of students
 $T < P < S < Q < R$
 $\therefore R$ has maximum height in the class.
18. (B) Statements:-



Conclusions:-
If I. (x), then II. (✓)
If I. (✓), then II. (x)
Hence, either conclusion I or II follows.

19. (A)
20. (D) From figure II and III
- | | | |
|---|---|---|
| 1 | 4 | 6 |
| 1 | 5 | 2 |
- \therefore '5' will appear opposite of '4'.
21. (A)
22. (A)
23. (D)
24. (C)
25. (B)
- | | | | | |
|-----|-----|-----|-----|----|
| S | T | E | A | L |
| ↓ | ↓ | ↓ | ↓ | ↓ |
| 14, | 31, | 40, | 95, | 59 |

26. (A) INA soldiers trial - When three captured Indian National Army (INA) officers, Shahnawaz Khan, Prem Kumar Sahgal and Gurbaksh Singh Dhillon were put on trial for treason, the Congress formed a Defence committee composed of 17 advocates including Bhulabhai Desai. The INA Defence Committee, later the INA Defence and Relief Committee, was a committee established by the Indian National Congress in 1945 to defend those officers of the Indian National Army who were to be charged during the INA trials. The committee declared the formation of the Congress' defence team for the INA and included famous lawyers of the time, including Bhulabhai Desai, Asaf Ali, Jawaharlal Nehru.
27. (B) Lord Clive (1725-1774) was the first British Governor General of Bengal Presidency. Lord Wellesley was the Governor General of Bengal from 1798 to 1805. Lord Dalhousie was the Governor General of India from 1848 to 1856. He introduced passenger trains, electric telegraph and Uniform postagal. He also founded the Public Works Department. Lord Curzon was the Viceroy of India from 1899 to 1905. He created the territory of Eastern Bengal and Assam.
28. (C) Progressive taxation is a tax that takes a larger percentage from high-income earners than it does from low-income individuals. Progressive expenditure means large percentage of expenditure from high income earners than low income earners.
29. (D) International Development Association (IDA) founded in 1960.
CEO - Kristalina Georgieva
IRBD President - David Malpass
IFC CEO - Philippe Le Houerou
MIGA Executive - Keiko Honda
Vice President
Headquarters of all four are at Washington D.C.
30. (D) Aspergillus is a fungus whose spores are present in the air. Synchytrium is a large genus of plant pathogens within the phylum Chytridiomycota. Rhizopus is a genus of common saprophytic fungi on plants and specialized parasites on animals.
33. (D) Johnson effect is the tendency of regulated companies to engage in excessive amounts of capital accumulation in order to expand the volume of their profits. The Photoelectric effect is the emission of electrons or other free carriers when light hits a material. Electrons emitted in this manner can be called photoelectrons. The Edison effect was the name given to a phenomenon that Edison observed in 1875 and refined later, in 1883, while he was trying to improve his new incandescent lamp.
34. (D) Radiocarbon dating is a method for determining the age of an object containing organic material by using the properties of radiocarbon, a radioactive isotope of carbon.
35. (C) Silver Iodide - Artificial rain
Silver Chloride - Horn Silver
Zinc Oxide - Philosopher's wool
36. (D) Article 194 -. Powers, privileges, etc, of the House of Legislatures and of the members and committees.
Article 177 - Rights of Ministers and Advocate General.
Article 197 - Restriction on powers of Legislative Council as to Bills other than Money Bills.
41. (A) Kajakottikali is the folk dance of Kerala.
43. (C) Muhammed Anas Yahiya from Kerala is an Indian sprinter who specialises in the 400 metres distance. He has national records in 400 meters.
45. (C) Examples of Warm Ocean Current - Gulf Stream in North Atlantic and Karoshio Current in the North Pacific.
Cold Ocean Currents - Canary in North Atlantic, California in North Pacific and Benguela in South Atlantic.
47. (C) BASIC a bloc of four large newly industrialized countries- Brazil, South Africa, India and China-formed by an agreement on 28 November 2009.
49. (B) Structural Height - 336.4m
Opened - 2004
Country - France
51. (D) $ATQ.,$
 $2\sin^2\theta = 3\cos\theta \quad (0^\circ \leq \theta \leq 90^\circ)$
 $\Rightarrow 2(1-\cos^2\theta) = 3\cos\theta$
 $\Rightarrow 2\cos^2\theta + 3\cos\theta - 2 = 0$
 $\Rightarrow 2\cos^2\theta + 4\cos\theta - \cos\theta - 2 = 0$
 $\Rightarrow (2\cos\theta - 1)(\cos\theta + 2) = 0$
Now, $2\cos\theta - 1 = 0$
 $\Rightarrow \cos\theta = \frac{1}{2}$
Hence $\theta = 60^\circ$

52. (C) ATQ.,

$$\text{Ratio of height} = \left(\frac{1}{2} : \frac{1}{3} : \frac{1}{4}\right) \times 12$$

$$= 6 : 4 : 3$$

$$\text{perimeter} = (6 + 4 + 3) \text{ units}$$

$$13 \text{ units} = 52 \text{ cm}$$

$$\Rightarrow 1 \text{ unit} = 4 \text{ cm}$$

$$\therefore \text{Smallest side} = 3 \text{ units}$$

$$= 3 \times 4 = 12 \text{ cm}$$

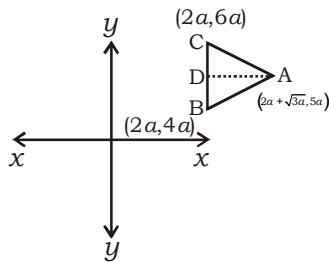
53. (A) ATQ.,

Train will be stop in 1 hour

$$= \frac{70 - 56}{70} \times 60 \text{ min}$$

$$= \frac{14}{70} \times 60 \text{ min} = 12 \text{ min}$$

54. (C)



$BC = 6a - 4a = 2a$, If ABC a equilateral triangle

Then,

$$\text{Height} = \frac{\sqrt{3}}{2} (\text{side}) = \frac{\sqrt{3}}{2} (2a) = \sqrt{3} a$$

From the figure $AD = 2a + \sqrt{3} a - 2a = \sqrt{3} a$

Both height are equal so triangle will be equilateral

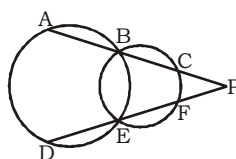
55. (B) ATQ.,

$$\sqrt{38.44} + \sqrt{0.3844} + \sqrt{0.00003844}$$

$$= 6.2 + 0.62 + 0.0062$$

$$= \mathbf{6.8262}$$

56. (A) ATQ.,



In small circle $PC \times PB = PF \times PE$

$$\Rightarrow PE = 12 \times \frac{9}{8} = \frac{27}{2}$$

In large circle, $PB \times PA = PE \times PD$

$$\Rightarrow 12 \times 18 = PD \times \frac{27}{2} \Rightarrow PD = 16$$

$$\therefore DE = PD - PE = 16 - 13.5 = 2.5$$

57. (B) Internal angle = 172°

$$\text{External angle} = 180^\circ - 172^\circ = 8^\circ$$

$$\text{External angle} = 180^\circ - 160^\circ = 20^\circ$$

$$\therefore 5 \times 8^\circ + n \times 20^\circ = 360^\circ$$

(Remaining sides = n)

$$\Rightarrow n = 16$$

$$\text{Hence, total side} = 16 + 5 = 21$$

58. (D) A.T.Q.,

$$\frac{M_1 D_1}{W_1} = \frac{M_2 D_2}{W_2}$$

$$= \frac{120 \times 64}{2} = \frac{(120 - x) \times 60}{3}$$

$$\Rightarrow \frac{120 \times 64}{2 \times 60} = (120 - x)$$

$$\Rightarrow (120 - x) = 64$$

$$\therefore x = 120 - 64 = 56$$

59. (C) Volume of new cube = sum of volume of 3 cubes

$$\therefore a^3 = (8)^3 + (6)^3 + (1)^3 = 729$$

$$\Rightarrow a = 9$$

$$\text{Total surface area of new cube} = 6a^2$$

$$= 6 \times (9)^2 = 486 \text{ cm}^2$$

60. (A) $\frac{r_A}{r_B} = \frac{3}{2}, \frac{h_A}{h_B} = \frac{n}{1}$ (given)

$$\text{and, } V_A = 3V_B \Rightarrow \frac{V_A}{V_B} = \frac{3}{1}$$

$$\frac{\pi r_A^2 h_A}{\pi r_B^2 h_B} = \frac{3}{1}$$

$$\Rightarrow \left(\frac{r_A}{r_B}\right)^2 \times \left(\frac{h_A}{h_B}\right) = \frac{3}{1}$$

$$\Rightarrow \frac{9}{4} \times \frac{n}{1} = \frac{3}{1}$$

$$\Rightarrow n = \frac{4}{3}$$

61. (B) Let solution = $3x$, $4x$ and Nx

A.T.Q.,

$$3x \times \frac{20}{100} + 4x \times \frac{30}{100} + Nx \times \frac{40}{100}$$

$$= x(3 + 4 + N) \frac{30}{100}$$

$$\Rightarrow 6x + 12x + 4Nx = x(21 + 3N)$$

$$\Rightarrow 18 + 4N = 21 + 3N$$

$$\Rightarrow N = 3$$

62. (A) Base area of prism = $\frac{\sqrt{3}}{4} \times 6 \times 6$

$$= 9\sqrt{3} \text{ cm}^2$$

\therefore Volume = base area \times height

$$81\sqrt{3} = 9\sqrt{3} \times \text{height}$$

$$\Rightarrow h = 9 \text{ cm.}$$

63. (C) Profit or loss of article = x

A.T.Q.,

$$579 - x = 337 + x$$

$$\Rightarrow 2x = 242$$

$$\Rightarrow x = 121$$

$$\text{Cost price} = 579 - 121 = 458$$

$$\text{New selling price} = ₹687$$

$$\text{New profit} = 687 - 458 = ₹229$$

$$\text{Required profit percent} = \frac{229}{458} \times 100 = 50\%$$

64. (B) Let radius and height are $5x$ and $12x$

$$r = 5x, \quad h = 12x$$

$$\text{Height of diagonal} = l = \sqrt{r^2 + h^2}$$

$$= \sqrt{(5x)^2 + (12x)^2} = 13x$$

$$= \text{Volume} = \frac{1}{3} \pi r^2 \times h$$

$$\Rightarrow \frac{2200}{7} = \frac{1}{3} \times \frac{22}{7} \times (5x)^2 \times (12x)$$

$$x = 1$$

$$l = 13x = 13 \text{ cm}$$

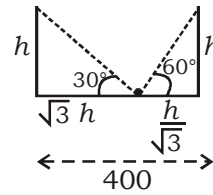
65. (C) Perimetre of half circle = Area of half circle

$$2r + \pi r = \frac{\pi}{2} r^2$$

$$\pi + 2 = \frac{\pi}{2} r \Rightarrow r = 2 \frac{(\pi + 2)}{\pi} = 2 + \frac{4}{22} \times 7$$

$$\text{Diameter} = 6\frac{6}{11} \text{ metres}$$

66. (B) ATQ,



Then,

$$\sqrt{3}h + \frac{h}{\sqrt{3}} = 400$$

$$\Rightarrow h = 100\sqrt{3}$$

Hence, required height = **$100\sqrt{3} \text{ m}$**

67. (C) ATQ,

$$12000 \left(1 + \frac{r}{100}\right)^2 = 13996.8$$

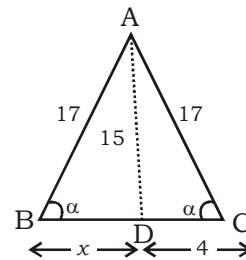
$$\Rightarrow \left(1 + \frac{r}{100}\right)^2 = \frac{139968}{120000}$$

$$\Rightarrow \left(1 + \frac{r}{100}\right)^2 = \left(\frac{108}{100}\right)^2$$

$$\Rightarrow r = 8\%$$

Hence, Required rate = **8%**

68. (A)



Applying cosine rule in triangle ABD and ACD

$$\cos \alpha = \frac{17^2 + 4^2 - 15^2}{2 \times 17 \times 4} = \frac{17^2 + x^2 - 15^2}{2 \times 17 \times x}$$

$$\Rightarrow \frac{80}{4} = \frac{64 + x^2}{x}$$

$$\Rightarrow x^2 - 20x + 64 = 0$$

$$\Rightarrow (x - 16)(x - 4) = 0$$

$$\Rightarrow \text{BD} = x = 16 \text{ cm}$$

69. (A) ATQ,
 $a + 7d - a - 2d = 49 - 19$
 $\Rightarrow 5d = 30$
 $\Rightarrow d = 6$ and
 $\Rightarrow a = 7$
 Hence, $T_{13} = a + 12d$
 $= 7 + 12 \times 6 = 79$

70. (C) $a + b + c = 0$ then $a = 1, b = -1, c = 0$ by putting
 $\therefore \frac{a^2b^2 + b^2c^2 + c^2a^2}{a^4 + b^4 + c^4} = \frac{1+0+0}{1+1} = \frac{1}{2}$

71. (B) $a : b = 4 : 5$
 Let $a = 4x, b = 5x$
 Now, $\frac{2a + 3b}{3a + 2b}$
 $\Rightarrow \frac{2 \times 4x + 3 \times 5x}{3 \times 4x + 2 \times 5x}$
 $\Rightarrow \frac{8x + 15x}{12x + 10x} = \frac{23x}{22x} = 23:22$

72. (A) $(a \sec\theta + b \tan\theta) (a \sec\theta - b \tan\theta) = 5$

$(a \sec\theta + b \tan\theta) = 1 \quad \dots(i)$
 $(a \sec\theta - b \tan\theta) = 5 \quad \dots(ii)$
 From equation (i) and (ii)
 $a \sec\theta = 3, \quad b \tan\theta = -2$
 $a^2b^2 + 4a^2 = \frac{9}{\sec^2\theta} \times \frac{4}{\tan^2\theta} + 4 \times \frac{9}{\sec^2\theta}$
 $= \frac{36(1 + \tan^2\theta)}{\sec^2\theta \tan^2\theta} = \frac{36 \sec^2\theta}{\sec^2\theta \tan^2\theta}$
 $= \frac{36}{\tan^2\theta} = \frac{36 \times b^2}{4} = 9b^2$

73. (A) ATQ,
 Required percent = $\frac{250}{750} \times 100 = 33.33\%$

74. (D) ATQ,
 Total number of players playing 3 games
 $= 250 + 300 + 200 + 400 +$
 $350 + 250 + 350 + 250 + 150$
 $= 2500$

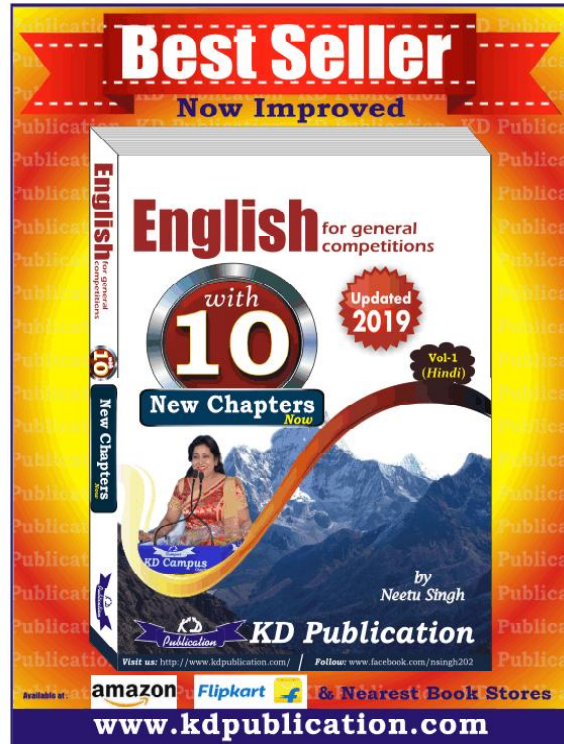
75. (C) ATQ,
 Total Hockey's players = $200 + 250 + 150$
 $= 600$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Amphibian	a cold-blooded vertebrate animal that is born in water and breathes with gills	उभयचर
Braggadocio	empty boasting	डींगे मारना
Brood	a family of young animals	बच्चे (पक्षी इत्यादि के)
Caravan	a group of people, typically with vehicles or animals travelling together	कारवां
Claustrophobia	fear of closed spaces	बंद जगह से डर
Despise	to dislike (something or someone) very much	घृणा
Drove	a herd or flock of animals being driven in a body	समूह
Elegant	showing good taste	शिष्ट
Endure	to continue to exist in the same state or condition	सहना
Hailstorm	a storm that brings hail	मुसलाधार बारिश
Larceny	the act of stealing something	चोरी
Protagonist	the main character in a novel, play, movie, etc.	नायक
Stark	having a very plain and often cold or empty appearance	खुला हुआ

SSC MOCK TEST - 221 (ANSWER KEY)

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



76. (D)
77. (B) Replace 'enough fatal' by 'fatal enough'. Enough comes after the Adjective it qualifies.
78. (B) Pique means to cause (interest or curiosity)
79. (C) Mettle means strength of spirit (क्षमता)
86. (A) Because sentence is interrogative sentence so "have you been doing" is correct form.
87. (C) The woman to whom I sold my house was a criminal is the correct form of the sentence. Preposition is followed by whom.



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