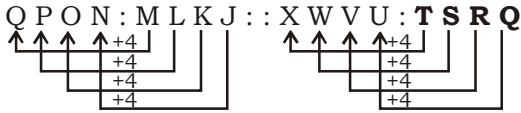


SSC MOCK TEST – 217 (SOLUTION)

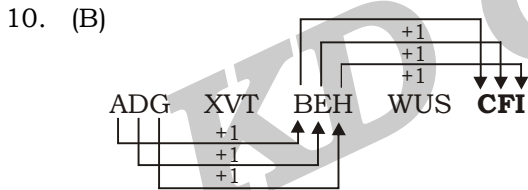
1. (B) $5 = \frac{2+4+3+1}{2} = 5, \quad 8 = \frac{5+4+6+1}{2}$

2. (B)



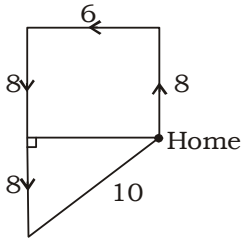
3. (D) Man writes Autobiography. Similarly, a nation writes its History.
4. (D) All three letters are vowels.
5. (B) Rest three are only square. 64 is both square and cube.
 $64 = 4^3$ or 8^2 .
6. (D) V. Narayanaswamy is the C.M of Puducherry. While all others are the lieutenant Governor of Ladakh, Delhi and J & K respectively.
7. (D)
8. (D) $2 \times 3 = 6, 3 \times 5 = 15, 5 \times 7 = 35$
 $7 \times 11 = 77, 11 \times 13 = 143, 13 \times 17 = 221$
 = **221**
 (Continuous prime number product)

9. (B) X Y P Q Z
 ↓ ↓
 Most powerful Least Powerful



11. (B) $8, 8 \times 1 + 5, 13 \times 2 + 4, 30 \times 3 + 3,$
 $93 \times 4 + 2, \mathbf{374 \times 5 + 1 = 1871}$
12. (C) REVISION
13. (D)
14. (C)

15. (B)



Required distance = $\sqrt{8^2 + 6^2} = 10\text{km}$

16. (A) Number of days = $21 + 30 + 31 + 30 + 31$

$+ 31 + 25 = 199$

Now, remainder after dividing by 7 = 3
 Then, required day
 = Friday + 3 days = Monday

17. (C) $7 + 8 = 9 + 6$

$11 + ? = 10 + 10 \Rightarrow ? = 20 - 11 = 9$

18. (D)



19. (C) $45 \times 5 - 24 + 3 \div 80$

After changing the signs as per given details,
 $= 45 \div 5 + 24 \times 3 - 80$
 $= 9 + 72 - 80$
 $= 81 - 80 = 1$

20. (D)

21. (C) $2^3 + 5^2 = 33$
 $3^3 + 4^2 = 43$
 $1^3 + 6^2 = 37$
 $3^3 + \mathbf{9^2} = 108$

22. (A)

23. (D)

24. (C)

25. (C)

27. (D) James Clerk colour photography
 Hans Christian Aluminium
 Orsted
 André-Marie Science of Electrody
 Ampère -namics

28 (A) Jalal-ud-din Khalji was the founder and first Sultan of the Khalji dynasty that ruled the Delhi Sultanate from 1290 to 1320. Ghiyas ud din Balban was the ninth sultan of the Mamluk dynasty of Delhi. Sultan Firoz Shah Tughlaq was a Turkic Muslim ruler of the Tughlaq Dynasty, who reigned over the Sultanate of Delhi from 1351 to 1388.

32 (B) Aihole (city of temples) was the first capital of Chalukyayas . The capital of Chlukyias was later moved to Badami during Pulakesin I. Badami is also known as Vatapi. Jayasimha was the first ruler of this dynasty.

33 (D) National champion Deepak Singh (49kg) was the lone Indian boxer to notch up a gold, while P Lalitha Prasad (52kg), Manish Kaushik (60kg), Duryodhan Singh Negi (69kg), Sanjeet (91kg) and Satish Kumar (+91kg) won the silver medal.

38. (A) The Arbitration and Conciliation Act 1996 is an Act that regulates domestic arbitration in India. It was amended in 2015 and further ammendment was passed in Lok Sabha on 1st August 2019.
39. (B) National Highway 44 running over 3,745 km (2,327 mi) from Srinagar to Kanyakumari.
 National Highway 48 starts at Delhi and terminates at Chennai and goes through Jaipur, Udaipur, Ahmedabad, Surat, Mumbai, Pune, Tumakuru, Bangalore and Vellore traversing through six states of India. It has a total length of 2807 km.
 National Highway 53 connects Hajira in Gujarat and Paradeep port in Odisha. National Highway-53 traverses the states of Gujarat, Maharashtra, Chhattisgarh and Odisha in India. It has a total length of 1795 km.
 National Highway 27 starts from Porbandar and terminates in Silchar. The highway passes through the states of Gujarat, Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar, West Bengal, Assam. It has a total length of 3507 km.
42. (D) Imis La is an international high mountain located between Ladakh and Tibet.
 Pensi-la is known as the Gateway to Zaskar. Pensi La connects the Suru Valley region to the Zaskar Valley region.
 The Lanak La or Lanak Pass is a mountain pass in Tibet Autonomous Region, China. It is on the southeastern boundary of the Aksai Chin region that is controlled by China.
43. (B) Rabindranath Tagore Literary Prize for social achievement was awarded to Yohei Sasakawa, the World Health Organization Goodwill Ambassador for Leprosy Elimination, for "his incredible efforts to uproot leprosy and great contribution to world peace".
 Taiwan President Tsai Ing-wen was awarded as a beacon of democracy".
45. (A) Sectors of economy are classified as primary, secondary, tertiary sectors & tertiary sector is further divided in to quaternary & quinary. The quaternary sector consists of intellectual industries providing information services, such as computing and ICT (information and

- communication technologies), consultancy (offering advice to businesses) and R&D (research, particularly in scientific fields).
46. (D) Article 14 - Equality before law
 Article 21 - Right to Life and Personal Liberty
 Article 24 Prohibition of employment of children in factories
49. (A) India has been elected as a member of the International Telecommunications Union-ITU council for another four-year term from 2019 to 2022. The Elections to the council were held during the ongoing ITU plenipotentiary conference 2018 at Dubai. The ITU has 193 member states that elect representative to the council. The country has been a regular member of ITU council since 1952.

51. (B)

	Milk	Mixture	
First	1	3 = 4 $\times 2$	} 8
Second	1	1 = 2 $\times 4$	
Final	3	5 = 8 $\times 1$	

By Alligation Method

$$\begin{array}{r} 2 \quad 4 \\ \quad \backslash \quad / \\ \quad 3 \\ \quad / \quad \backslash \\ 1 \quad 1 \\ \quad : \end{array}$$

2 units = 12 litres
 1 unit = 6 litres

52. (D) A.T.Q,

$$\frac{(5m + 3b) \times 7}{(3m + 5b) \times 12} = \frac{4550}{6600}$$

$$\Rightarrow \frac{5m + 3b}{3m + 5b} = \frac{13}{11}$$

$$\Rightarrow 55m + 33b = 39m + 65b$$

$$\Rightarrow 16m = 32b$$

$$\Rightarrow \frac{m}{b} = \frac{2}{1}$$

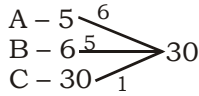
Let 2 men and 2 women work d hour to earn ₹2100.
 ATQ,

$$\Rightarrow \frac{(2 \times m + 2 \times b) \times d}{(5m + 3b) \times 7} = \frac{2100}{4550}$$

$$\Rightarrow \frac{(2 \times 2 + 2 \times 1) \times d}{(5 \times 2 + 3 \times 1) \times 7} = \frac{6}{13}$$

$$\Rightarrow d = 7 \text{ hours}$$

53. (B) ATQ.,



$$\therefore \text{Required time} = \frac{30}{6+5+1} = 2\frac{1}{2} \text{ hours.}$$

54. (A) ATQ.,

$$\begin{aligned} \text{Average speed} &= \frac{(v+s)(v-s)}{v} \\ &= \frac{(4.5+1.5)(4.5-1.5)}{4.5} \\ &= \frac{6 \times 3}{4.5} = 4 \text{ km/hr} \end{aligned}$$

55. (B) Let the amount invested at 6% be x
The amount invested at 5% be $10000 - x$

$$\begin{aligned} \frac{(10000-x) \times 5}{100} - x \times \frac{6}{100} &= 76.50 \\ \Rightarrow 50000 - 5x - 6x &= 7650 \\ \Rightarrow 11x &= 42350 \\ \Rightarrow x &= 3850 \end{aligned}$$

56. (C) Let speed of the car be x kmph

$$\begin{aligned} \text{Then, speed of the train} &= \frac{150}{100}x \\ &= \left(\frac{3}{2}x\right) \text{ kmph} \end{aligned}$$

$$\therefore \frac{75}{x} - \frac{75}{(3/2)x} = \frac{125}{10 \times 60}$$

$$\Rightarrow \frac{75}{x} - \frac{50}{x} = \frac{5}{24}$$

$$\Rightarrow x = \left(\frac{25 \times 24}{5}\right) = 120 \text{ kmph}$$

57. (B) Profit = 16.67%

Let C.P = ₹100

$$\text{S.P} = (100 + 16.67) = \left(100 + \frac{100}{6}\right)$$

Cost price of 203 articles = selling price of x articles

$$203 \text{ CP} = x \times \text{SP}$$

$$\Rightarrow \frac{\text{SP}}{\text{CP}} = \frac{203}{x}$$

$$\Rightarrow \frac{700}{6 \times 100} = \frac{203}{x}$$

$$\Rightarrow x = 174$$

58. (D) Let length = $3a$ cm

Breadth = $2a$ cm

Height = $4a$ cm

Volume of the brick = $3a \times 2a \times 4a$

$$\Rightarrow 24a^3 = 3000$$

$$\Rightarrow a^3 = 125$$

$$\Rightarrow a = 5$$

So, length = $3 \times 5 = 15$ cm

Breadth = $2 \times 5 = 10$ cm

Height = $4 \times 5 = 20$ cm

Total surface area of brick = $2(lb + bh + hl)$

$$= 2(15 \times 10 + 10 \times 20 + 20 \times 15)$$

$$= 1300 \text{ cm}^2$$

$$\therefore \text{Required cost} = 1300 \times \frac{50}{100} = ₹650$$

59. (D) Difference between simple interest and compound interest for 3 years,

$$= P \left[\left(\frac{r}{100} \right)^2 \times \left(3 + \frac{r}{100} \right) \right]$$

$$\Rightarrow 247 = 2125 \left[\left(\frac{r}{100} \right)^2 \times \left(3 + \frac{r}{100} \right) \right]$$

$$\Rightarrow r^2 \left(\frac{300+r}{100} \right) = 128000$$

So, $r = 20\%$ (alternatively, check using options)

60. (D) Factor of $72 = 8 \times 9$

A.T.Q.,

We know that divisibility of 9 is sum of all digits of number is divisible by 9.

$$91876x2$$

So,

$$\frac{9+1+8+7+6+x+2}{9}$$

$$\Rightarrow \frac{6+x}{9}$$

\Rightarrow Possible value of x is 3

$$\Rightarrow x = 3$$

61. (D) $\frac{a}{b} = \frac{2}{3}$

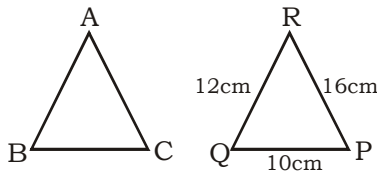
$$\frac{5a-2b}{5a+2b} = \frac{b \left[5 \frac{a}{b} - 2 \right]}{b \left[5 \frac{a}{b} + 2 \right]}$$

$$= \frac{5 \times \frac{2}{3} - 2}{5 \times \frac{2}{3} + 2} = \frac{10 - 6}{10 + 6}$$

$$\frac{4}{16} = \frac{1}{4}$$

$$\Rightarrow (5a - 2b) : (5a + 2b) = 1 : 4$$

62. (A) $\Delta ABC \sim \Delta RQP$



We know that

$$\frac{\text{Area of } \Delta PQR}{\text{Area of } \Delta ABC} = \left(\frac{QP}{BC} \right)^2$$

$$\Rightarrow \frac{9}{4} = \left(\frac{10}{BC} \right)^2$$

$$\Rightarrow \frac{3}{2} = \frac{10}{BC}$$

$$\Rightarrow BC = \frac{20}{3} \text{ cm}$$

63. (B) $\sin^2 20^\circ + \sin^2 70^\circ - \tan^2 45^\circ + \sec 60^\circ$

$$\Rightarrow \sin^2 20^\circ + \sin^2 (90^\circ - 20^\circ) - (1)^2 + 2$$

$$\Rightarrow \sin^2 20^\circ + \cos^2 20^\circ - 1 + 2$$

$$1 + 1 = 2$$

64. (B) ATQ.,

$$\sqrt{x} - \frac{1}{\sqrt{x}} = 2\sqrt{2}$$

Squaring both sides

$$x + \frac{1}{x} - 2 = 8$$

$$\Rightarrow x + \frac{1}{x} = 10$$

Again squaring both sides

$$x^2 + \frac{1}{x^2} + 2 = 100$$

$$\Rightarrow x^2 + \frac{1}{x^2} = 98$$

65. (B) $7.5 + (5.4 \div 4.5 \times 2) - 8 \times 4 \div 3.2$

$$= 7.5 + \left(\frac{6}{5} \times 2 \right) - 8 \times \frac{5}{4}$$

$$= 7.5 + \frac{12}{5} - 10$$

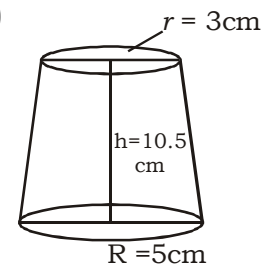
$$= 9.9 - 10$$

$$= -0.1$$

66. (B) No. of spheres = $\frac{\frac{4}{3}\pi R^3}{\frac{4}{3}\pi r^3}$

$$= \frac{(4)^3}{(2)^3} = \frac{64}{8} = 8$$

67. (B)



$$\text{Volume of frustum} = \frac{\pi h}{3} (R^2 + Rr + r^2)$$

$$= \frac{22}{7} \times \frac{10.5}{3} ((5)^2 + 5 \times 3 + (3)^2)$$

$$= \frac{22 \times 1.5}{3} (25 + 15 + 9)$$

$$= 22 \times 0.5 (49)$$

$$= 539 \text{ cm}^3$$

68. (B) ATQ.,

$$x + y = 200 \dots (I)$$

$$4x - y = 200 \dots (II)$$

$$\Rightarrow 5x = 400$$

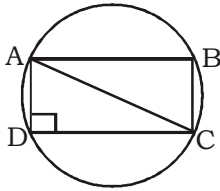
$$x = 80$$

69. (C) In the given Expression

$$\Rightarrow \cos 90^\circ = 0$$

then value of whole Expression = 0

70. (A) AC will be the longest chord of the circle or diameter of the circle.



71. (C) $x + \frac{1}{x} = -2$

then $\Rightarrow x = -1$

So, the value of $x^{2n+1} + \frac{1}{x^{2n+1}} = -2$

72.(C) Required Average

$$= \frac{(5+10+25+20+25+15) \times 1000}{6}$$

$$= \frac{100000}{6} = 16666 \frac{2}{3}$$

73.(D) Required % = $\frac{(X+Y+Z) \text{ in } 2017}{(X+Y+Z) \text{ in } 2018} \times 100$

$$= \frac{55 \times 1000}{60 \times 1000} \times 100 = 91.67 \%$$

74.(A) Required % = $\frac{X \text{ in } 2016}{(X+Y+Z) \text{ in } 2016} \times 100$

$$= \frac{10 \times 1000}{55 \times 1000} \times 100 = 18\% \text{ (approx)}$$

75.(B) Respective Ratio = (Z in 2015) : (Z in 2014)

$$= (15 \times 1000) : (10 \times 1000)$$

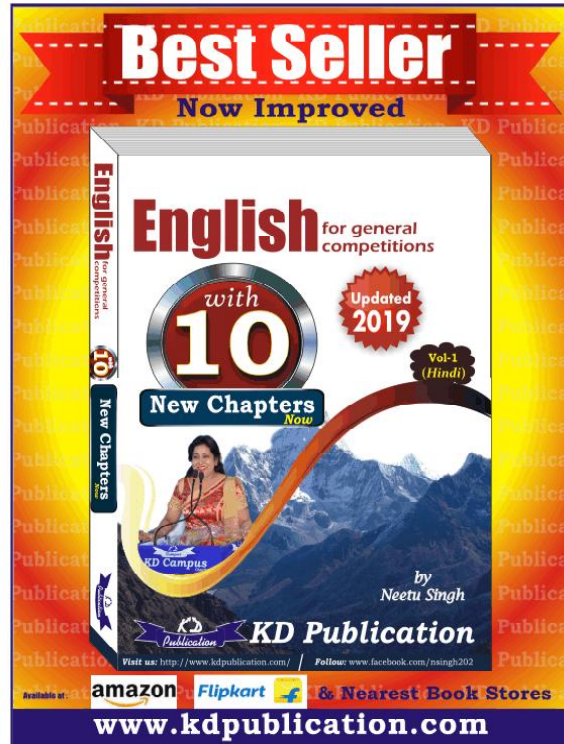
$$= 3 : 2$$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Afflict	to cause pain or unhappiness to	पीड़ा पहुँचाना
Enforce	to carry out or make effective	लागू करना
Lament	crying out in grief	शोक करना
Mourn	to feel or show great sadness because someone has died	विलाप करना
Precise	exactly stated or explained	सटीक
Profuse	given, produced, or existing in large amounts	प्रचुर
Prolong	to make (something) last or continue for a longer time	जारी रखना
Renounce	to give up	छोड़ना
Repudiate	to refuse to accept or support (something)	परित्याग करना
Sanction	to give official approval or consent to	प्रतिबंध
Scanty	limited or less than sufficient in degree, quantity, or extent	अल्प
Torment	to cause great mental suffering	मानसिक यातना पहुँचाना

SSC MOCK TEST - 217 (ANSWER KEY)

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



76. (C) The error is in third part. The adjective **hard** has two different adverbs, and they express opposite meanings. The adverb **hard** is used to modify a verb and means that the action is being done very intensely. The adverb **hardly** is used to modify a verb and means that the action is *not* being done very intensely. So there the correct usage will be 'working hard'.
77. (D) The given sentence is grammatically correct and there is no error.
78. (A) The error is in first part. Replace 'whom' with 'who'. 'Whom' is a pronoun which is the objective case of the pronoun 'who'. But who is the subject in the given sentence, and hence usage of 'whom' is incorrect here.
88. (D) No improvement required. Sentence is idiomatically correct.
89. (C) Accustom is followed by 'to'. So, the correct idiomatic expression will be 'accustom yourself to' or 'get accustomed to'.

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