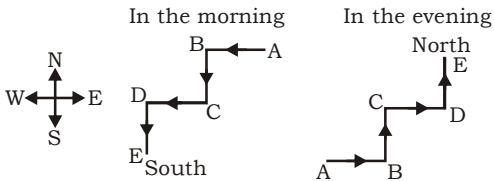


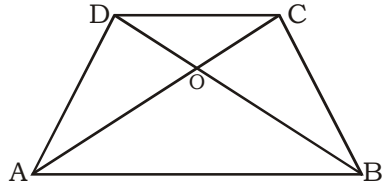
**SSC MOCK TEST - 224 (SOLUTION)**

1. (B) As,  $15 \times 9 = 135$   
Similarly,  $27 \times 9 = \mathbf{243}$
2. (B) As, EFJK LMQR  
 $\begin{array}{c} \text{EFJK} \\ \text{-----} \\ \text{+7} \\ \text{-----} \\ \text{LMQR} \end{array}$   
 Similarly, LMQR STXY  
 $\begin{array}{c} \text{LMQR} \\ \text{-----} \\ \text{+7} \\ \text{-----} \\ \text{STXY} \end{array}$
3. (B) As, our 2<sup>nd</sup> president was Sarvepalli Radhakrishnan. Similarly, our 11<sup>th</sup> president was **A.P.J Abdul Kalam**.
4. (C) Except **63**, all others are multiples of two prime numbers.
5. (A) **A DG J**    **M P S U**  
 $\begin{array}{c} \text{A DG J} \\ \text{-----} \\ \text{+3} \quad \text{+2} \\ \text{-----} \end{array}$      $\begin{array}{c} \text{M P S U} \\ \text{-----} \\ \text{+3} \quad \text{+2} \\ \text{-----} \end{array}$   
**J M P R**    **O R U W**  
 $\begin{array}{c} \text{J M P R} \\ \text{-----} \\ \text{+3} \quad \text{+2} \\ \text{-----} \end{array}$      $\begin{array}{c} \text{O R U W} \\ \text{-----} \\ \text{+3} \quad \text{+2} \\ \text{-----} \end{array}$
6. (C) Except **Shankar Dayal Sharma**, all others are India's former Prime Minister.
7. (C) Parlamentar  $\rightarrow$  Parlance  $\rightarrow$  **Parle**  $\rightarrow$  Parley
8. (A)  $\begin{array}{c} 8^{\text{th}} \qquad 15^{\text{th}} \\ \text{A} \qquad \text{B} \\ \text{-----} \\ \text{A} \quad 14 \\ \text{-----} \\ 42^{\text{th}} \end{array}$   
 So, Required number =  $42 + 14 = \mathbf{56}$
9. (B)  $\begin{array}{c} \text{A L P H A B E T} \\ \text{-----} \\ \text{ACE} \quad \text{DFH} \quad \text{HJL} \quad \text{MOQ} \\ \text{-----} \\ \text{+3} \quad \text{+4} \quad \text{+5} \\ \text{-----} \end{array}$
10. (A)  $\begin{array}{c} 23 \qquad 32 \qquad 42 \qquad 53 \qquad 65 \\ \text{-----} \\ \text{+9} \quad \text{+10} \quad \text{+11} \quad \text{+12} \\ \text{-----} \end{array}$
11. (C) 23    32    42    53    65  
 $\begin{array}{c} 23 \quad 32 \quad 42 \quad 53 \quad 65 \\ \text{-----} \\ \text{+9} \quad \text{+10} \quad \text{+11} \quad \text{+12} \\ \text{-----} \end{array}$
12. (B) ATQ,  
 Ist April = Wednesday  
 29th April = Wednesday  
 then, Ist May = Wednesday + 2 days  
 = **Friday**
13. (B)
14. (B) As,  $36 \div 9 = 4$   
 and,  $108 \div 9 = \mathbf{12}$   
 Similarly,  $72 \div 8 = 9$
15. (B)
16. (C) Since B and D are twins, so  $B = D$ .  
 Now,  $A = B + 3$  and  $A = C - 3$ .  
 Thus,  $B + 3 = C - 3 \Rightarrow D + 3 = C - 3$   
 $\Rightarrow C - D = 6$ .

17. (A)   
 In the morning: A  $\rightarrow$  B  $\rightarrow$  C  $\rightarrow$  D  $\rightarrow$  E  
 In the evening: A  $\rightarrow$  B  $\rightarrow$  C  $\rightarrow$  D  $\rightarrow$  E  
 If he starts walking in the morning, then finally he will face South and if he starts in the evening then finally he will face North.
18. (B) According to the statement, sea transport is cheaper than road transport in the case of route from Bombay to Jafra, not in all the cases. So, conclusion I does not follow. The statement stresses on the saving of fuel. So, conclusion II follows.
19. (C)  $324 \oplus 289 = 324 - 289 = 35 \Rightarrow 35^2 = 1225$   
 $256 \oplus 225 = 256 - 225 = 31 \Rightarrow 31^2 = 961$   
 $49 \oplus 25 = 49 - 25 = 24 \Rightarrow 24^2 = 576$   
 $186 \oplus 97 = 186 - 97 = 89 \Rightarrow 89^2 = \mathbf{7921}$
20. (C) (3C9)A (4B6) B6  
 After substituting the signs as per the given direction.  
 $= (3 \times 9) - (4 + 6) + 6$   
 $= 27 - 10 + 6$   
 $= \mathbf{23}$
21. (A) 

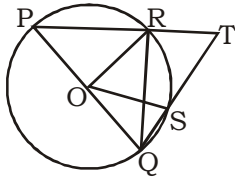
Consonant	Vowel	Result
Hindu	3	$2 \Rightarrow 3^3 - 2^2 = 23$
Muslim	4	$2 \Rightarrow 4^3 - 2^2 = 60$
Sikh	3	$1 \Rightarrow 3^3 - 1^2 = 26$
Christan	6	$2 \Rightarrow 6^3 - 2^2 = \mathbf{212}$
22. (D)
23. (B)
24. (C)
25. (D)
26. (A) Vijayanagar Empire (1336-1646) was established by Harihara I and his brother Bukka Raya I of Sangama Dynasty.
28. (D) Narendra Jahdav - Economics  
 Mary Kom - Sports  
 Swapan Das Gupta - Journalism  
 K.T.C. Tulsi - Law
29. (C) Autotrophs are organisms that can produce their own food, using materials from inorganic sources.
34. (C) Osmotic organisms, such as the salmon, evolved osmoregulatory mechanisms to survive in a variety of aquatic environments. Eurythermal organisms are the organisms that can tolerate large-scale variations in temperature. The hydrothermal vent microbial community includes all unicellular organisms that live and reproduce in a chemically distinct area around hydrothermal vents.

35. (A) A cyclotron is a type of particle accelerator invented by Ernest O. Lawrence in 1929-1930 in 1932. A cyclotron accelerates charged particles outwards from the center along a spiral path. The particles are held to a spiral trajectory by a static magnetic field and accelerated by a rapidly varying (radio frequency) electric field. Lawrence was awarded the 1939 Nobel prize in physics for this invention.
36. (B) Stroboscope - an instrument for studying periodic motion or determining speeds of rotation by shining a bright light at intervals so that a moving or rotating object appears stationary. Tangent galvanometer - instrument used to measure for small electric currents. Tachometer-measuring the rotation speed of a shaft or disk, as in a motor or other machine.
39. (D) The World Bank comprises two institutions: the International Bank for Reconstruction and Development (IBRD), and the International Development Association (IDA). Its headquarters is at Washington DC. IMF was founded on 27 December 1945. World Economic Forum (WEF), based in Geneva, Switzerland was founded in 1971. The WEF's mission is cited as "committed to improving the state of the world by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas". The United Nations Conference on Trade and Development was established in 1964.
41. (B) Sarhind Canal - Punjab  
 Sharda Canal - Uttar Pradesh
44. (D) Goldschmidtite brought to the surface form a depth of 170 km.
45. (C) Headquarters of ILO is at Geneva.
46. (A) Mahmoud Abbas - President  
 Ramallah - Capital.
50. (C) Jean-Jacques Rousseau (28 June 1712 - 2 July 1778) was a Francophone Genevan philosopher, writer, and composer of the 18th century. His political philosophy influenced the Enlightenment in France and across Europe, as well as aspects of the French Revolution and the overall development of modern political and educational thought.



- $\triangle DOC \sim \triangle BOA$   
 (since  $AB \parallel DC$ )  
 $\therefore \frac{Ar(\triangle AOB)}{Ar(\triangle COD)} = \left(\frac{AB}{DC}\right)^2 = \left(\frac{6}{3}\right)^2$   
 $\Rightarrow \frac{Ar(\triangle AOB)}{Ar(\triangle COD)} = \frac{4}{1}$
52. (B) ATQ.,  
 A : B  
 Efficiency 3 : 7  
 A and B working together they can finish entire work in  $10\frac{1}{2}$  days but they do the work only 8 days.  
 Total remaining work =  $2\frac{1}{2} \times 10$   
 = 25 units  
 Now, 60% of remaining work  
 = .60  $\times$  25 units  
 = 15 units  
 Numbers of days taken by A to finish the 60% of remaining work  
 $\frac{15}{3} = 5$  days
53. (C)
- 
- Start with O  
 Let mass at O = 21 kg  
 $\frac{AD}{DC} = \frac{9}{5}$   
 $\frac{Ar(\triangle BCD)}{Ar(\triangle BAD)} = \frac{CD}{AD} = \frac{5}{9}$   
 $\frac{60}{Ar(\triangle BAD)} = \frac{5}{9}$   
 $Ar(\triangle BAD) = 108$   
 $\therefore Ar(\triangle ABC) = 108 + 60 = 168 \text{ cm}^2$
54. (C) ATQ.,  
 Zinc : Copper  
 56 : 24 in 80 kgs  
 Then, required quantity =  $\frac{56}{2} \times 3 - 80$   
 = **4kgs**
55. (A)  $\sin\theta = \sqrt{3} \cos\theta$   $0^\circ < \theta < 90^\circ$   
 $\Rightarrow \tan\theta = \sqrt{3}$   
 $\Rightarrow \theta = 60^\circ$   
 $\Rightarrow 2\sin^2\theta + \sec^2\theta + \sin\theta\sec\theta + \text{cosec}\theta$   
 $\Rightarrow 2\sin^2 60^\circ + \sec^2 60^\circ + \tan 60^\circ + \text{cosec} 60^\circ$   
 $\Rightarrow 2 \times \frac{3}{4} + 4 + \sqrt{3} + \frac{2}{\sqrt{3}} = \frac{11}{2} + \frac{5}{\sqrt{3}}$   
 $\Rightarrow \frac{11\sqrt{3} + 10}{2\sqrt{3}} = \frac{33 + 10\sqrt{3}}{6}$

56. (D) ATQ.,



$\angle PRQ = 90^\circ$   
 (Angle in the semi circle)  
 $\angle QRT = 180^\circ - \angle PRQ$   
 $= 180^\circ - 90^\circ$   
 $= 90^\circ$

$\angle RQS = \frac{1}{2} \angle ROS$  (Angle by the same chord at centre is double of angle at circumference)

$\angle RQS = \frac{1}{2} \times 44^\circ = 22^\circ$

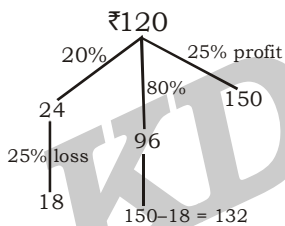
In  $\triangle QRT$

$\angle RTS = 180^\circ - (\angle QRT + \angle RQT)$   
 $= 180^\circ - (90^\circ + 22^\circ) = 68^\circ$

57. (D) ATQ.,  
 $3x + y - 5 = 0$  ... (i)

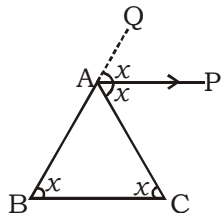
and  
 $2x - y - 5 = 0$  ... (ii)  
 Solving equation (i) and (ii)  
 $x = 2, y = -1$   
 Now,  $3\alpha + \beta = 3 \times 2 - 1 = 5$

58. (C) ATQ.,  
 Let CP of 1 quantal wheat is ₹1



The required profit =  $\frac{132 - 96}{96} \times 100 = 37.5\%$

59. (B)



$\angle PAC = \angle BCA$   
 Alternate angle  
 $\angle ABC = \angle PAQ$

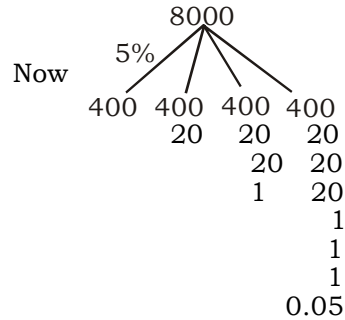
$\therefore \angle B = \angle C$   
 So,  $AB = AC$   
 This is a Isosceles triangle.

60. (C) ATQ.,

S.I =  $\frac{8000 \times 10 \times 2}{100} = 1600$

and C.I for 2 years compounded half yearly.

then,  $r = \frac{10}{2} = 5\%$



Hence, Required difference =  $1724.05 - 1600 = ₹124.05$

61. (C) ATQ.,  
 $LCM \times 3 = 567$   
 $\Rightarrow LCM = 189$   
 Hence, required ratio =  $3 : 189 = 1 : 63$

62. (C) ATQ.,

$\frac{4}{3} \pi \left(\frac{3}{2}\right)^3 = \frac{4}{3} \pi \left[\left(\frac{1.5}{2}\right)^3 + \left(\frac{2}{2}\right)^3 + \left(\frac{x}{2}\right)^3\right]$

$\Rightarrow \frac{27}{8} = \frac{27}{64} + 1 + \frac{x^3}{8}$

$\Rightarrow 216 = 27 + 64 + 8x^3$

$\Rightarrow 125 = 8x^3$   
 Cube root on both side,

$\Rightarrow x = \frac{5}{2}$

Hence, Required diameter = 2.5 cm

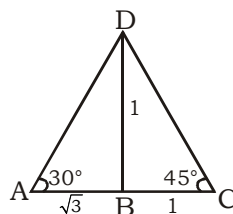
63. (B) ATQ.,  
 $A : B : C$   
 $2 : 3 : 2$   
 $: 5 : 2$

$\Rightarrow 10 : 15 : 6$   
 Hence, Required ratio = 10 : 15 : 6

64. (D) ATQ.,

Required time =  $\frac{47.5}{(28+10)} \times 60 = 75$  min

65. (A)



ATQ.,  
 1 unit  $\rightarrow$  50m

$\therefore (\sqrt{3} + 1)$  units =  $50 (\sqrt{3} + 1)$ m = 136.6 m.

$\therefore$  Required distance = **136.6m**

66. (B) ATQ,  
 $x = 500y + 45$   
Then,  $x/125 = 500y/125 + 45/125$   
 $x = 125 \times 4y + 45$   
Hence, Required remainder = 45

67. (B) ATQ,  
 $l = b + 5$   
then,  $lb = b(b + 5) = 150$   
 $\Rightarrow b^2 + 5b - 150 = 0$   
 $\Rightarrow (b + 15)(b - 10) = 0$   
 $\Rightarrow b = -15$  or  $b = 10$   
but breadth cannot be negative  
So, Required perimeter =  $2(l + b) = 50\text{cm}$

68. (D) ATQ,  
Required Area =  $(6 + 8 + 10) \times 16$   
 $= 384 \text{ cm}^2$

69. (B) ATQ,  
 $S_n = \frac{a}{1-r}$  (for  $n = \infty$ )  
 $S_n = \frac{1}{1-\frac{1}{2}} = 2$

70. (A) ATQ,  
 $\frac{p^2 + q^2}{pq} = \frac{r^2 + s^2}{rs}$   
 $\Rightarrow \frac{p}{q} + \frac{q}{p} = \frac{r}{s} + \frac{s}{r}$   
 $\Rightarrow \frac{p}{q} = \frac{r}{s}$  or  $\frac{p}{q} = \frac{s}{r}$

$\Rightarrow \frac{p-q}{p+q} = \frac{r-s}{r+s}$  or  $\frac{p-q}{p+q} = \frac{s-r}{s+r}$   
Hence,  $(p-q)/(p+q) = (r-s)/(r+s)$

71. (C) ATQ,  
Required distance =  $2 \times \frac{22}{7} \times 28 \times 10$   
 $= 1760 \text{ cm}$

72. (B) ATQ,  
A : B  
 $76000 \times 12$  :  $57000(12-x)$   
16 :  $(12-x)$

Then,  $\frac{16}{12-x} = \frac{2}{1} \Rightarrow x = 4$   
Hence, Required time = **4 months**

73. (B) ATQ,  
Required percent =  $\frac{(750 - 500)}{500} \times 100 = 50$

74. (D) ATQ,  
Required percent =  $\frac{(600 - 500)}{600} \times 100$   
 $= 16.66$

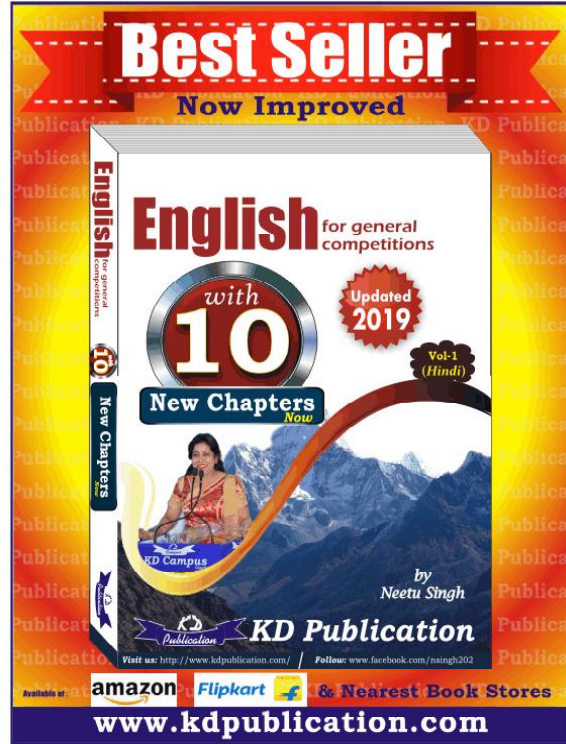
75. (A) ATQ,  
Required Number =  $\frac{(410 + 490 + 300)}{3}$   
 $= \frac{1200}{3} = 400$

## MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Alias	also known as	उपनाम
Apt	having a tendency	उपयुक्त
Assassination	the act of murdering an important person by a surprise or secret attack	राजहत्या
Attenuation	a lessening in amount	क्षीण
Attrition	the act of rubbing together	संघर्षण
Coy	marked by shy and innocent quality	शर्मिला और मासूम
Demarcation	something that marks or constitutes a boundary	सीमा-निर्धारण
Discursive	moving from topic to topic without order	असंबद्ध
Flaccid	not firm or stiff	झूलता हुआ
Pertinacious	adhering resolutely to an opinion, purpose, or design	दृढ़
Resemblance	something that makes one person or thing like another	सादृश्य
Suppression	the state of being put down or held back	दमन
Typify	to represent in typical fashion	प्रतीक
Unsavory	unpleasant to taste	बेस्वाद

**SSC MOCK TEST - 224 (ANSWER KEY)**

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



76. (B) 'larger' replace by 'largest'. When one is chosen out of all, we use a superlative degree.
77. (B) 'are' replace by 'is'. Romanticism takes singular verb.
78. (A) 'a legislation' replace by 'the legislation'. Here we are talking about the particular legislation that restricts the fundamental rights.



**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**