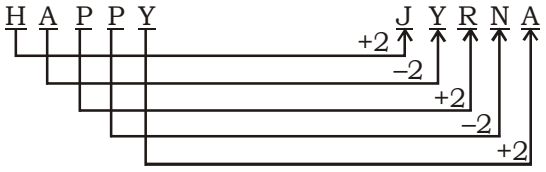
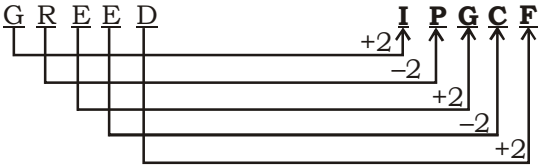
SSC MOCK TEST – 143 (SOLUTION)

1. (C) As, $(3 + 3)^3 = 216$
Similarly, $(5 + 5)^3 =$ **1000**

2. (A) As,



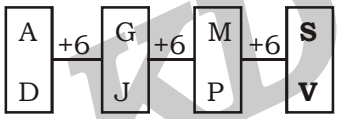
Similarly,



3. (C) As, Taste is the action by Tongue.
Similarly, **Touch** is the action by skin.
4. (D) Except **Fish**, others are amphibian.
5. (D) Except **STRM,** others have vowel.
6. (A) **1728** is a perfect cube.
7. (B) Harvest → Hearse → Horizon → Hormone → Horrendous
8. (D) P E A C E
@ % ϕ @
9. (B) **MAGNATE**
10. (B) Total number of persons = 17 + 17 – 1 = 33

11. (A) 1 , 3 , 7 , 13 , 21 , **31**
+2 +4 +6 +8 +10

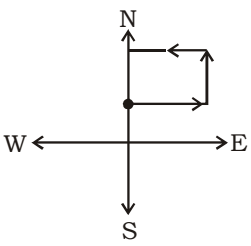
12. (B)



13. (C) 8 = 4 = 12
4 + 12 = 16
12 + 16 = 28
16 + 28 = **44**

14. (D) As, BRIDGE has 6 Alphabets
∴ BRIDGE ⇒ 6 × 2 = 12
Similarly, BRICK has 5 Alphabets
∴ BRICK ⇒ 5 × 2 = **10**

15. (D)



∴ Required direction = West

16. (A) (15 + 12) ÷ 3 = 9
(44 + 28) ÷ 8 = 9
(64 + 53) ÷ **13** = 9
17. (B) 9 × 6 × 5 = 270
7 × 8 × 6 = 336
8 × **4** × 7 = 224
18. (C) 19.(C) 20.(D) 21.(D) 22.(C)
23. (D) 24.(B) 25.(C)
26. (A) The main watchdog of International Trade is World Trade Organization (WTO). WTO is a permanent international trade body which replaced the General Agreement on Tariff and Trade (GATT) on January 1, 1995. Its headquarters is in Geneva .WTO is the only global international organization dealing with the rules of trade between nations.
28. (A) Post the elections, the MLAs from the ruling party elect their leader who goes on to becoming the Chief Minister. The Chief Minister then selects other MLAs as his ministers. Once that is done, the Governor of the state appoints the Chief Minister and all other ministers.
29. (C) The Maurya Empire (322 BCE - 185 BCE) was an Iron Age power in ancient India ruled by the Maurya Dynasty. The famous ruler of the Mauryan Dynasty was Ashoka. Ashoka was famous because he ruled almost all the Indian Subcontinents and propagated the policy of dhamma.
30. (B) Khan Abdul Ghaffar, also known as or Badshah Khan was a Pashtun non-violent activist and close confidant of Mahatma Gandhi. He was born a Pashtun in 1890 in the Northwest border city of Utmanzai, located in today's Pakistan. His family was wealthy landowners.
31. (C) Zero degrees latitude is the line designating the Equator and divides the Earth into two equal hemispheres (north and south). Zero degrees longitude is an imaginary line known as the Prime Meridian.
32. (A) A lithosphere is the solid portion of the earth that has the composition of the crust and the portion of the upper mantle or earth's surface. It extends to a depth of about 60 mi (100 km).

33. (C) Menopause is a phase of life in women that signifies the end of their reproductive period. It signifies the end of menstruation. This means that the ovaries of the women stop producing an egg every four weeks and there is no monthly period. Beyond menopause a women will no longer be able to have children.

34. (C) Protons and neutrons are both nucleons, which may be bound together by the nuclear force to form atomic nuclei. The nucleus of the most common isotope of the hydrogen atom is a lone proton.

35. (C) Phosphorus and nitrogen are examples of Nutrients of impurities in sewage.

Type of impurities	Examples
• Organic impurities :	Human faces, animal waste, oil,urea (urine), pesticides, herbicides, fruits and vegetables
• Inorganic impurities :	Nitrates, phosphates, metals
• Nutrients impurities :	Phosphorus, nitrogen
• Bacteria impurities :	Various types; such as those causing cholera, typhoid, etc.

37. (C) In 1869 Russian chemist Dmitri Mendeleev started the development of the periodic table, arranging chemical elements by atomic mass.

38. (A) Ratha Yatra or Chariot Festival is a Hindu festival associated with Lord Jagannath held at Puri in the state of Odisha, India. Jagannath is considered a form of Vishnu. He is a part of a triad along with his brother Balabhadra and sister Subhadra.

39. (D) Andy Marino is a British writer. He is the author of "Narendra Modi; A Political Biography", published by Harper Collins. His biography on Modi is remarkable because of his unprecedented access to Modi, he was "the only foreigner known to have unfettered access to Mr. Modi".

41. (D) One of the essential conditions of "perfect competition" is same price for same things at one time. A perfectly competitive market has the following characteristics:
- There are many buyers and sellers in the market.
- Each company makes a similar product.
- Buyers and sellers have access to perfect information about price.
- There are no transaction costs.
- There are no barriers to entry into or exit from the market.

42. (A) Bank of Bengal, Bank of Bombay and Bank of Madras amalgamated on January 27, 1921 and the Imperial Bank of India was formed under the Imperial Bank of India Act, 1920. After Independence, the Imperial Bank of India was nationalized under the State Bank of India Act, 1955 and State Bank of India (SBI) was formed.

45. (B) Rakhigarhi is a village in Hisar District in the state of Haryana in India. It is the site of a pre-Indus Valley Civilization settlement going back to about 6500 BCE. Later, it was also part of the mature Indus Valley Civilization, dating to 2600-1900 BCE.

46. (A) Chor Minar or 'Tower of Thieves' is a 13th-century minaret with 225 holes, situated just off Aurobindo Marg in the Hauz Khas area, in New Delhi. It was built under the rule of Alauddin Khalji, of the Khalji dynasty (1290-1320) in the thirteenth century.

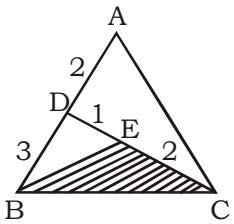
49. (A) The instrument used to regulate temperature to a particular degree is called Thermostat. Thermostats use different types of sensors to measure the temperature.

50. (B) The 'SAMPADA' scheme of Government of India is related to Food processing. The objective of PMKSY is to supplement agriculture, modernize processing and decrease agriculture-Waste.

51. (A) Total discount on 3 items = 24 × 3 = 72%
Total discount on 5 items = 40 × 5 = 200%
Now, Total discount on 8 items

$$= \frac{72+200}{8} = \frac{272}{8} = \mathbf{34\%}$$

52. (B)



Given, AD : DB = 2 : 3

$\therefore$ area (ΔADC) : area (ΔBDC) = 2 : 3

Now, area (ΔABC) = area (ΔADC) + area (ΔBDC) = 2 + 3 = 5 units
Also, DE : EC = 1 : 2
$\therefore$ area (ΔBDE) : area (ΔBEC) = 1 : 2
Also, area (ΔBDC)= area (ΔBDE) + area (ΔBEC) = 1 + 2 = 3 units
So, area (ΔBEC) : area (ΔABC) = **2:5**

53. (B) Exterior angle = $\frac{360°}{n}$

Here, n = 8

$\therefore$ Exterior angle = $\frac{360°}{8} = 45°$

and, Interior angle = 180° – 45° = **135**

54. (D) 5 cutlet = 2 cofta

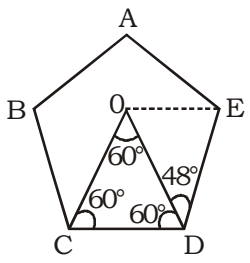
$\therefore$ $\frac{\text{Cutlet}}{\text{Cofta}} = \frac{2x}{5x}$ (Let x = constant)

Cost of 15 cutlets = $15 \times 2x = 30x$
Cost of 4 coftas = $4 \times 5x = 20x$
ATQ,
$30x + 20x = 200$
$\Rightarrow 50x = 200$
$\Rightarrow x = 4$
$\therefore$ Cost of 1 cofta = 5x = 5 × 4 = **₹ 20**

55. (C) Let natural numbers are x and y.
ATQ,
$136x + 24y$
= $8(17x + 3y)$
Hence, sum must be multiple of 8.
So, **2152** is the right answer.

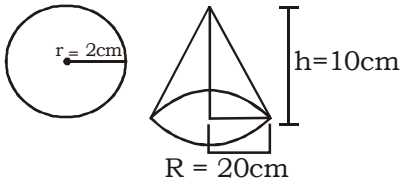
56. (A) Meeting time = $\sqrt{a.b}$
= $\sqrt{54 \times 24}$ a = Time taken by A
= 36 min. b = Time taken by B
$\therefore$ Time taken by B to cover the entire journey
= 36 + 24 = **60 min.**

57. (B)



Internal angle of a regular Pentagon
= 108°, $\angle$CDE = 108°
$\angle$ODC = 60° [$\because$ ΔOCD is Equilateral Δ]
$\therefore$ $\angle$ODE = 108° – 60° = 48°
Now, OC = CD = OD [$\because$ triangle COD is equilateral Δ]
CD = DE [$\because$ ABCDE is a regular pentagon.]
So, we can say that OD = DE
$\angle$DEO = $\angle$DOE = x (say)
In triangle DEO,
$\angle$ODE + $2x$ = 180°
$\Rightarrow$ 48° + $2x$ = 180°
$\Rightarrow$ $2x$ = 132° or x = **66°**

58. (D)



Let number of balls formed = x
Volume of cone = x × volume of 1 spherical ball

$\Rightarrow$ $\frac{1}{3}\pi R^2 h = x \times \frac{4}{3}\pi r^3$
$\Rightarrow$ $(20)^2 \times 10 = x \times 4 \times (2)^3$
$\Rightarrow$ $400 \times 10 = x \times 4 \times 8$
$\Rightarrow$ x = **125**

59. (D) $4a + \frac{1}{3a} = 4$

Multiplying both side by $\frac{3}{4}$,

$\frac{3}{4} \times 4a + \frac{1}{3a} \times \frac{3}{4} = 4 \times \frac{3}{4}$

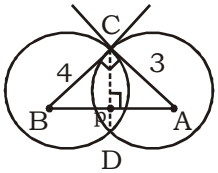
$\Rightarrow$ $3a + \frac{1}{4a} = 3$

Squaring both sides,

$9a^2 + \frac{1}{16a^2} + 2 \times 3a \times \frac{1}{4a} = 9$

$\Rightarrow$ $9a^2 + \frac{1}{16a^2} = 9 - \frac{6}{4} = \frac{36-6}{4} = \frac{30}{4} = \mathbf{\frac{15}{2}}$

60. (C)



In ΔABC,
$AB^2 = BC^2 + AC^2$
$\Rightarrow$ $AB^2 = 4^2 + 3^2$
$\Rightarrow$ AB = 5 cm.
CD is chord of circles

$\therefore$ CD $\perp$ AB and CP $= \frac{CD}{2}$

Area $(\Delta ABC) = \frac{1}{2} \times AC \times BC = \frac{1}{2} \times CP \times AB$

$\Rightarrow 3 \times 4 = CP \times 5$

$\Rightarrow CP = \frac{12}{5}$

$\therefore CD = \frac{12 \times 2}{5} = \frac{24}{5} =$ **4.8cm**

61. (D) $\sqrt{\frac{7+\sqrt{73+\sqrt{59+\sqrt{8+\sqrt{289}}}}}{\sqrt[3]{729}}}$

$\sqrt{\frac{\sqrt{7+\sqrt{73+\sqrt{59+\sqrt{8+17}}}}}{9}}$

$\Rightarrow \sqrt{\frac{\sqrt{7+\sqrt{73+\sqrt{59+5}}}}{9}}$

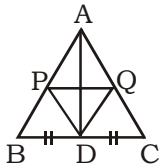
$\Rightarrow \sqrt{\frac{\sqrt{7+\sqrt{73+8}}}{9}}$

$\Rightarrow \sqrt{\frac{\sqrt{7+9}}{9}} \Rightarrow \sqrt{\frac{4}{9}} = \mathbf{\frac{2}{3}}$

62. (B) $\left(\frac{27}{512}\right)^{\frac{-2}{3}}$

$= \frac{1}{\left(\frac{27}{512}\right)^{\frac{2}{3}}} = \frac{1}{\left(\frac{3}{8}\right)^2} = \frac{1}{\frac{9}{64}} = \mathbf{\frac{64}{9}}$

63. (C)



AD $\perp$ BC

$\angle ADC = 90°$

$\angle ADQ = \frac{90°}{2} = 45°$

and $\angle ADP = \frac{90°}{2} = 45°$

$\therefore \angle PDQ = 45° + 45° =$ **90°**

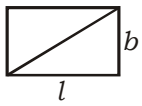
64. (A) Simple interest of 2 years = ₹ 760

$\therefore$ Simple interest of 1 year = ₹ 380

C.I. for 2 nd year will be 779 –380 = ₹ 399

$\therefore$ Rate of interest $= \frac{(399-380)}{380} \times 100 =$ **5%**

65. (A)



Distance covered by Carl Lewis in 15 second $= \frac{100 \times 15}{60} = 25$ metre

Distance covered by Bolt in 15 second

$= \frac{124 \times 15}{60} = 31$ metre

Now, $l + b = 31$

and, $\sqrt{l^2 + b^2} = 25$

$\Rightarrow l^2 + b^2 = 625$

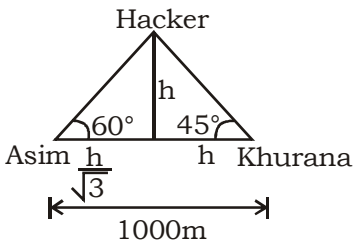
$(l + b)^2 = l^2 + b^2 + 2lb$

$\Rightarrow (31)^2 = 625 + 2lb$

$\Rightarrow lb = \frac{961-625}{2} = 168$

$\therefore$ Required area = **168m²**

66. (B)



A.T.Q,

$\frac{h}{\sqrt{3}} + h = 1000$

$\Rightarrow (\sqrt{3} + 1)\, h = 1000\sqrt{3}$

$\Rightarrow h = \frac{1000\sqrt{3}}{\sqrt{3}+1} = \frac{1000\sqrt{3}(\sqrt{3}-1)}{2}$

$\Rightarrow h = 500\sqrt{3}\ (\sqrt{3}-1)$

Hence, height of terrace

$=$ **$500\sqrt{3}\,(\sqrt{3}-1)$m**

67. (D) $\cos 2\theta$

$= \cos(\theta + \theta)$

$= \cos^2\theta - \sin^2\theta$

multiply and divide by $\cos^2\theta$,

$= \cos^2\theta(1 - \tan^2\theta)$

$= \dfrac{1-\tan^2\theta}{\sec^2\theta}$

$= \boldsymbol{\dfrac{1-\tan^2\theta}{1+\tan^2\theta}}$

68. (A) ATQ,

$3x - 2y = 13$

$\Rightarrow y = \dfrac{3x}{2} - \dfrac{13}{2}$

$\therefore$ Slope $= \dfrac{3}{2}$

$4x + ky = -7$

$\Rightarrow y = \dfrac{-4}{k}x - \dfrac{7}{k}$

Slope $= \dfrac{-4}{k}$

For perpendicular lines, product of Slopes $= -1$

$\therefore \dfrac{3}{2}\left(-\dfrac{4}{K}\right) = -1$

$\Rightarrow K = \mathbf{6}$

69. (C) a b c

9 11

5 9

Hence, required ratio **45 : 99 : 55**

70. (C) ATQ,

$\dfrac{9.6}{(34+x)} = \dfrac{16}{60}$

$\Rightarrow 34 + x = 36$

$\Rightarrow x = 2$

Hence, required speed = **2kmph**

71. (B) Required number

$= 12 \times 36 - 7 \times 29 - 4 \times 45$

$= 432 - 203 - 180 = \mathbf{49}$

72. (B) Required number

$= 1800 \times \dfrac{20}{100} \times \dfrac{3}{5} - 1800 \times \dfrac{12}{100} \times \dfrac{5}{12}$

$= 216 - 90 = \mathbf{126}$

73. (A) Required Number $= 1800 \times \dfrac{12}{100} \times \dfrac{7}{12} +$

$1800 \times \dfrac{35}{100} \times \dfrac{3}{14} = 126 + 135 = \mathbf{261}$

74. (A) Women in Tennis : Men in Swimming

$1800 \times \dfrac{20}{100} \times \dfrac{3}{5} : 1800 \times \dfrac{18}{100} \times \dfrac{1}{3}$

2 : 1

75. (B) Total number of male players $= \dfrac{1800}{100}$

$\left(15 \times \dfrac{7}{15} + 12 \times \dfrac{7}{12} + 20 \times \dfrac{2}{5} + 18 \times \dfrac{1}{3} + 35 \times \dfrac{3}{14}\right)$

$= 18\left(7 + 7 + 8 + 6 + \dfrac{15}{2}\right)$

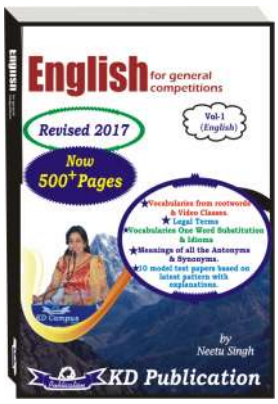
$= 18 \times \dfrac{71}{2} = \mathbf{639}$

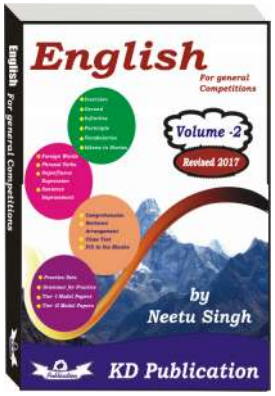
MEANINGS IN ALPHABETICAL ORDER

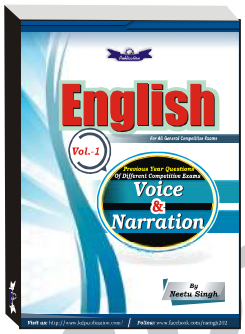
Word	Meaning in English	Meaning in Hindi
Plebiscite	a vote by which people of a country express their opinion	जनमत-संग्रह
Tyranny	Cruel and unfair treatment by people with power over others	उत्पीड़न
Opprobrium	very strong disapproval or criticism of a person	निंदा, अनादर
Reproach	something that deserves blame or disgrace	दोष लगाना
Obliterate	to remove, destroy or hide completely	मिटाना
Annihilate	to destroy completely	अस्तित्व मिटा देना
Feint	to pretend to make an attack as a trick to fool your opponent	छल
Lambency	the quality, state or an instance of being lambent	चमक, झिलमिलाहट
Rampart	a broad bank or wall raised as a protective barrier	किले की दीवार
Embankment	a raised bank or wall to carry a roadway or hold back water	बांध
Bequeath	to give or leave by means of a will	वसीयत में देना
Parsimonious	very unwilling to spend money	कंजूस
Avaricious	greedy for riches	लालची
Iconoclast	a person who criticizes or opposes beliefs and practices that are widely accepted	परम्परा तोड़ने वाला
Truant	a person who neglects his or her duty	कर्तव्य से भागने वाला
Punter	someone who makes a bet	बाजी लगाने वाला
Renegade	a person who deserts a faith, cause or party	अपना पक्ष त्याग देना
Catastrophe	a sudden disaster	प्रलय, तबाही
Capacious	able to hold or contain a lot	विशाल

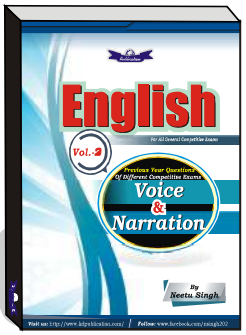
SSC MOCK TEST - 143 (ANSWER KEY)

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









76. (C) Remove the. We do not use definite article the before the following words by cycle, by train, by scooter, by airplane, by taxi, by car etc.

77. (A) Replace 'with' with in. 'Deal with' some body/something means to handle somebody/something

Deal in - to do business

78. (C) 'About' is the correct option . 'Go about' is an idiom which means to start dealing with a problem, situation in a particular way.

79. (C) 'Distinguish' is the correct option. Distinguish means to recognize one thing from others by some mark or quality.

86. (B) 'Obsolete' is the correct option. Obsolete means no longer in use or no longer useful.

87. (C) 'Surprised at' is the correct option. Surprise takes preposition at.

* Surprised at पर आश्चर्य चकित होना

90. (D) 'Calemity' is incorrectly spelt word. 'Calamity' is the correct word. Calamity means great distress or misfortune.

91. (C) 'Etiqueete' is incorrectly spelt word. 'Etiquette' is the correct word. Etiquette means the proper way to behave or to do something.

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