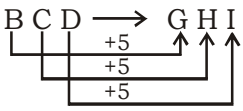
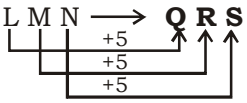
SSC MOCK TEST – 156 (SOLUTION)

1. (A) Whale is a Mammal and Turtle is an **Apmhibian**.
2. (C) As,



Similarly,

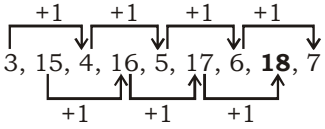


3. (B) $9^2 - 1 = 81 - 1 = 80$
   $7^2 - 1 = 49 - 1 =$ **48**
4. (D) Except **729**, others are perfect cube of prime numbers.
5. (B) Except **Korea**, all others are European country.
6. (C) $N \xrightarrow{-1} M \xrightarrow{-1} L$

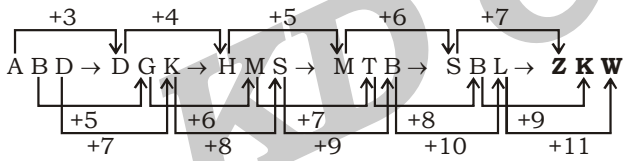
   $Q \xrightarrow{-1} P \xrightarrow{-1} O$

   $\mathbf{H \xrightarrow{-1} G \xrightarrow{-2} E}$

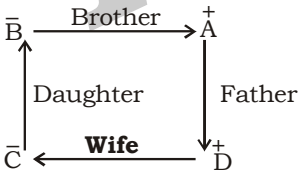
   $X \xrightarrow{-1} W \xrightarrow{-1} V$
7. (C) Quest → Quiet → Quilt → Quit → Quite
8. (D)



9. (B)



10. (B)

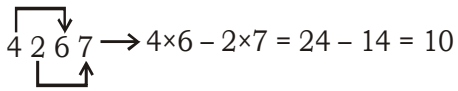


Hence, it is clear from diagram that C is wife of D.

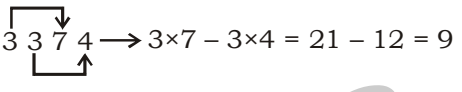
11. (D) Number of boys in the row.
    = (18 + 6 + 5) = 29
    Anil is just left of Arun. So, Anil is 17th from the left end
    Number of boys to right of Anil
    = (29 – 17) = 12
    So, Anil is **13th** from the right end of the row.
12. (D) **MASTER**
13. (C) As, MADRAS → 517916

    and, TENANT → 432124

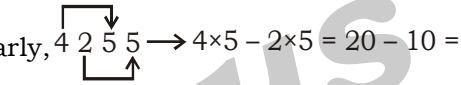
    Similarly, RMATSN → **951462**
14. (C) $13 \div 27 + 3 \times 5 - 2 = ?$
    After changing the signs as per the given details,
    $13 + 27 \div 3 - 5 \times 2$
    = $13 + 9 - 10 = 22 - 10 =$ **12**
15. (A) As,



and,



Similarly,



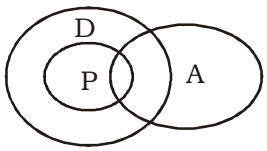
16. (B) As,

$\frac{36}{4} = 9 = (3)^2 \Rightarrow 3 \times 4 = 12$

and, $\frac{32}{8} = 4 = (2)^2 \Rightarrow 2 \times 8 = 16$

Similarly, $\frac{13}{13} = 1 = (1)^2 \Rightarrow 1 \times 13 =$ **13**

17. (B) **10**
18. (A)



I → ✓ II → ×

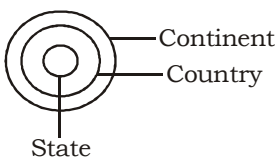
∴ Only conclusion I followrs.

19. (A)

3	2	1
4	6	5

∴ There will be **3 dots** opposite to face having 4 dots.

20. (A)



21. (A) 22. (B) 23. (B)
24. (D) There will be **5 dots** opposite to face having 2 dots.
25. (B)

26.(C) The Seventh Five Year Plan (1985-90) had three priorities of increasing food, work and productivity. With its emphasis on generating substantial productive employment, the plan aimed at a significant reduction in the incidence of poverty and an improvement in the quality of life of the poor. The poverty ratio was expected to decline from 37 per cent to 26 percent by 1990.

28.(C) Kisan Diwas (Farmer's Day) is observed every year on 23rd December to celebrate the birth anniversary of the fifth Prime Minister Chaudhary Charan Singh. He was the PM of India for a very short tenure starting from 28th of July 1979 until 14th January 1980.

29.(D) The Himalayan foothills, also known as the sub-Himalaya or the Shivaliks. Geologically, the Sivalik Hills belong to the tertiary deposits of the outer Himalayas.

30.(A) 1 mole of Carbonexactly 12 grams of pure carbon-12 powder is known as one mole. The number of atoms of carbon-12 present in this one mole sample is 6.022×10^{23}. This number is known as Avogadro's number.

33.(C) Salivary amylase initiates the digestion of starches, one of the more complex forms of carbohydrate. Secreted in the saliva, salivary amylase breaks down long-chain and branched carbohydrates, known as amylose and amylopectin.

34.(D) The first Union Budget of Independent India was presented by the first Finance Minister of Independent India, Sir R.K. Shanmukham Chetty, on November 26, 1947.

36.(C) The mass of Hydrogen is 1gram and the mass of Oxygen is16 gram. Therefore, in a water molecule, i.e. H_2O, the mass ratio of hydrogen to oxygen is 1:8.

37.(A) The President of India appoints only one Chief Election Commissioner. Hehas tenure of six years, or up to the age of 65 years, whichever is earlier. Heenjoys the same status and receives salary and perks as available to Judges of the Supreme Court of India. The Chief Election Commissioner can be removed from office only through impeachment by Parliament.

38.(C) Every planet in our solar system except for Venus and Uranus rotates counter-clockwise as seen from above the North Pole. In fact this "West to East" is the same direction in which the planets orbit the sun. The known reason for Uranus strange rotation is getting hit by a planetoid and that for Venus is getting hit by asteroid.

39.(A) Trivendra Singh Rawat inaugurated the country's first Drone Application Research Laboratory and Cyber Security centre in Dehradun.

Uttarakhand :

- Statehood: 9th November 2000
- Capital: Dehradun
- Governor: K K Paul
- Districts: 13

40.(A) The fuel which has the maximum calorific value is Hydrogen. The calorific valueHydrogen is 150 kJ/gram.

Fuel	:	Calorific value
• Hydrogen	:	150 KJ/g
• Methane	:	55 KJ/g
• LPG	:	50 KJ/g
• Kerosene oil	:	48 KJ/g
• Charcoal	:	33 KJ/g
• Wood	:	17 KJ/g

42.(A)

- **Charles Robert Darwin** (February 12, 1809 to April 19, 1882) was a naturalist and biologist known for his theory of evolution and the process of natural selection.
- **Gregor Johanm Mendel**, through his work on pea plants, discovered the fundamental laws of inheritance.
- In 1929 the British biologist **John Burdon Sanderson Haldane** published a hypothesis on the origin of life on earth, which was one of the most emblematic of the interwar period.

43.(A) Swaminathan is known as the "Father of Indian Green Revolution" for his leadership and success in introducing and further developing high-yielding varieties of wheat in India.

44.(D) Rajasthan Government and Microsoft have signed a Memorandum of Understanding to provide digital training to 9,500 college students of the state.

Objective:

"The objective is to develop technical education at government colleges, capacity building, increasing digital literacy and improving digital education in Rajasthan".

Microsoft :

- Founded: 4th April 1975
- Headquarters: Washington, United States
- CEO: Satya Nadella

46.(A) Anoushka Shankar is a British Indian sitar player and composer. She is the daughter of Ravi Shankar and the half-sister of Norah Jones.

47.(A) Alkene:—Aliphatic unsaturated hydrocarbons in which carbon atoms are attached with each other by means of double bonds are called as **alkene**.
Their general molecular formula is, $\mathbf{C_nH_{2n}}$
Where **n**= number of carbon atoms.

49.(C) The formatting toolbar is a toolbar in Microsoft Office applications, such as Microsoft Word and Microsoft Excel. The Formatting toolbar provides quick access to text-formatting commands, including Bold, Italic, Underline, Numbering, and Bullets.

50.(D) Odisha government has ordered a ban on the use of plastic bags, polythene and single use plastic in the state from Gandhi Jayanti in October. The Chief Minister Naveen Patnaik made the announcement to ban plastic in the state while talking about environmental awareness in the newly started "Ama Mukhyamantri, Ama Katha" (Our Chief Minister, our issues) programme.

51. (D) $(544)^{1024} + (544)^{1035}$

Unit digit of $(544)^{1024} = 6$

Unit digit of $(544)^{1035} = 4$

$\therefore$, Unit digit = 6 + 4 = 10 = 0

52. (A) Line $3x + y = 6$ cuts the line $x = 2$

$\therefore$ y = 0

Now, $3x + 0 = 6$

$\Rightarrow x = 2$

$\therefore$ Co-ordinates of required points are (2, 0)

53. (C) $20\% = \frac{1}{5}$

radius 5 $\longrightarrow$ 4
radius 5 $\longrightarrow$ 4
height 16 $\xrightarrow{+9}$ 25
$25\times16 \quad 25\times16$

$\therefore$ Required increment $= \left[\frac{9}{16}\times100\right]\%$

$\Rightarrow$ 56. 25%

54. (A) P $(x + y)^2 = 5$ (given)

$\Rightarrow (x + y)^2 = \frac{5}{P}$

$\Rightarrow x^2 + y^2 + 2xy = \frac{5}{P}$ .... (1)

Q $(x - y)^2 = 3$ (given)

$\Rightarrow x^2 + y^2 - 2xy = \frac{3}{Q}$ ..... (2)

From (1) and (2), we get

$4xy = \frac{5}{P} - \frac{3}{Q} = \frac{5Q-3P}{PQ}$

$\Rightarrow 4xy\,PQ = 5Q - 3P$

Now, $P^2 (x + y)^2 + 4\,PQ\,xy - Q^2 (x - y)^2$

$= P^2\left(\frac{5}{P}\right) + 5Q - 3P - Q^2\left(\frac{3}{Q}\right)$

$= 5P + 5Q - 3P - 3Q$

$= 2P + 2Q$

$= \mathbf{2 (P + Q)}$

55. (D) $a = \frac{\sqrt{x+2}+\sqrt{x-2}}{\sqrt{x+2}-\sqrt{x-2}}$

Using componendo and dividendo, we get

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

$\Rightarrow \frac{a+1}{a-1} = \frac{\sqrt{x+2}}{\sqrt{x-2}}$

Squaring both sides, we get

$\frac{(a+1)^2}{(a-1)^2} = \frac{x+2}{x-2}$

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

again using componendo and dividendo,

we get $\frac{2a^2+2}{4a} = \frac{2x}{4}$

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

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

$\Rightarrow a^2 + 1 = ax$

$\Rightarrow \mathbf{a^2 - ax = -1}$

56. (D) The angle formed in a semi circle is a right angle.

57. (C) ATQ,

$x + y =$ ₹ 10,100 .....(1)

$y + z =$ ₹ 12,500 .....(2)

$z + x =$ ₹ 10,400 .....(3)

Now, $2 (x + y + z) =$ ₹ 33000

$\Rightarrow x + y + z =$ ₹ 16500 ..... (4)

and x = **₹ 4000**

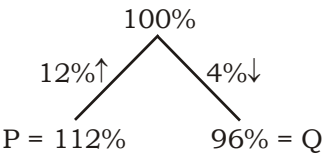
58. (C) L.C.M. of 12, 16, 18 and 21 = 1008

Required number = 2016 = 2000 + **16**

So, Smallest number (16) which when added to 2000 makes the required number.

and, required sum of digits = 1 + 6 = 7

59. (B)

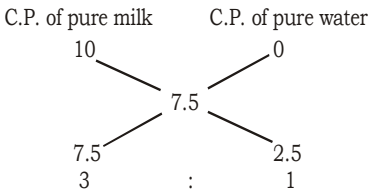


$$\frac{Q}{P}=\frac{96}{112}$$

$$\Rightarrow \mathbf{\frac{Q}{P}=\frac{6}{7}}$$

60. (A) SP of milk without gain = $\frac{9\times100}{120}$

= ₹ 7.5



61. (B) Let breadth = x

length = $3x$

ATQ,

$$\sqrt{(3x)^2+(x)^2}=8\sqrt{10}$$

$\Rightarrow 10x^2 = 640$

$\therefore x = 8$

Required percentage = 2 (length + breadth) = 2 $(3x + z) = 8x$

= 8 × 8

= **64 cm**

62. (C) If $\tan\theta - \cot\theta = 0$

$\Rightarrow \tan\theta = \cot\theta$

and, $\theta = 45°$

$$\therefore \sin 45° + \cos 45° = \frac{1}{\sqrt{2}}+\frac{1}{\sqrt{2}}=\frac{2}{\sqrt{2}}=\sqrt{2}$$

63. (A) Heptagon has 7 sides.

So, number of sides (x) = 7

A.T.Q.

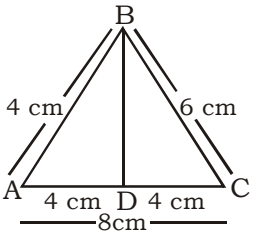
Internal angle = $\frac{(x-2)}{x}\times180°$

$$= \frac{(7-2)}{7}\times180°$$

$$= \frac{180°\times5}{7}$$

$$= \frac{900}{7} = 128.57°$$

64. (B)



A.T.Q.,

$AB^2 + BC^2 = 2 (AD^2 + BD^2)$

$\Rightarrow 16 + 36 = 2 (16 + BD^2)$

$\Rightarrow 52 = 2 (16 + BD^2)$

$\Rightarrow 26 - 16 = BD^2$

$10 = BD^2$

$\Rightarrow BD = \sqrt{10}$cm

So, area of square of side BD = BD^2 = 10 cm^2

65. (B) $$\frac{\sin\theta-\cos\theta+1}{\sin\theta+\cos\theta-1}=\frac{\left[\sin\theta-(\cos\theta-1)\right]}{\left[\sin\theta+(\cos\theta-1)\right]}\times\frac{\left[\sin\theta-(\cos\theta-1)\right]}{\left[\sin\theta-(\cos\theta-1)\right]}$$

$$= \frac{\left[\sin\theta-(\cos\theta-1)\right]^2}{\sin^2\theta-(\cos\theta-1)^2}$$

$$= \frac{\sin^2\theta+(\cos\theta-1)^2-2\sin\theta(\cos\theta-1)}{\sin^2\theta-(\cos\theta-1)^2}$$

$$= \frac{(-1)\left(\cos^2\theta-1\right)+(\cos\theta-1)^2-2\sin\theta(\cos\theta-1)}{(-1)\left(\cos^2\theta-1\right)-(\cos\theta-1)^2}$$

$$= \frac{(\cos\theta-1)\left[(-1)(\cos\theta+1)+(\cos\theta-1)-2\sin\theta\right]}{(\cos\theta-1)\left[(-1)(\cos\theta+1)-(\cos\theta-1)\right]}$$

$$= \frac{\cos\theta-1+\cos\theta-1-2\sin\theta}{-\cos\theta-1-\cos\theta+1}$$

$$\Rightarrow \frac{-2\sin\theta-2}{-2\cos\theta}\Rightarrow\frac{-2(\sin\theta+1)}{-2(\cos\theta)}$$

$\Rightarrow \tan\theta + \sec\theta$

66. (B) Required % increase = $x + y + \frac{xy}{100}$

$= 10 + 10 + \frac{10+10}{100}$

$= 10 + 10 + 1$

$= 21\%$

67. (A) $\cos A + \cos B + \cos C = \sqrt{3}.\sin\left(\frac{\pi}{3}\right)$

$= \sqrt{3}.\frac{\sqrt{3}}{2}$

$= \frac{3}{2}$

$\cos A = \cos B = \cos C = \frac{1}{2}$

$\therefore, A = B = C = 60°$

$= \sin\frac{A}{2}.\sin\frac{B}{2}.\sin\frac{C}{2}$

$= \sin30°\ \sin30°\ \sin30°$

$= \frac{1}{2}.\frac{1}{2}.\frac{1}{2} = \frac{1}{8}$

68. (D) $\sin 720° - \cot 270° - \sin 150° \cos 120°$

$= 0 - 0 - \frac{1}{2} \times \left(-\frac{1}{2}\right)$

$= \frac{1}{4}$

69. (A) Let required fraction be x
A.T.Q.,

$x + 4\left(\frac{1}{x}\right) = \frac{13}{3}$

by option, put $x = \frac{4}{3}$

$\frac{4}{3} + 4\left(\frac{3}{4}\right) = \frac{13}{3}$

$\Rightarrow \frac{4}{3} + 3 = \frac{13}{3}$

L.H.S. = R. H.S.
So, required fraction

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

70. (B) Net rate for 2 years at 8% P.A. $= 8 + 8 + \frac{8\times8}{100}$

$= 16 + \frac{64}{100}$

$= 16.64\%$

Now, $16.64\% = 4160$

$\Rightarrow 1\% = \frac{4160}{1664}\times100$

$\Rightarrow 100\% = \left[\frac{4160}{1664}\times100\times100\right]$

$= ₹25,000$

71. (C) Area of rhombus $= \frac{1}{2}\times$ diagonal 1 $\times$ diagonal$_2$

$= \frac{1}{2} \times 12 \times 14 = 84\ cm^2$

72. (A) Required difference = 200 – 100 = 100

73. (A) Total policies he sell = 250 + 100 + 400 = 750

74. (B) Required percentage

$= \frac{250-50}{250} \times 100 = 80\%$

75. (B) Total employee in F

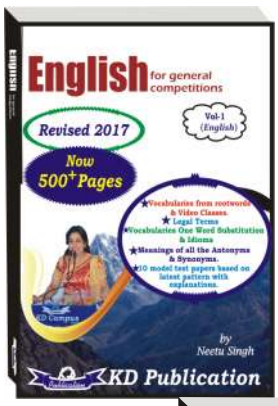
$= 400 + \frac{250\times20}{100} = 450$

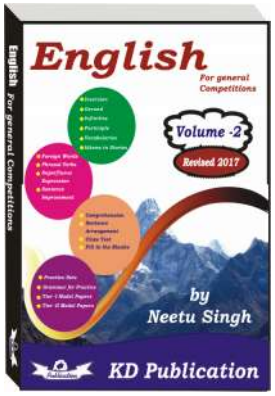
MEANINGS IN ALPHABETICAL ORDER

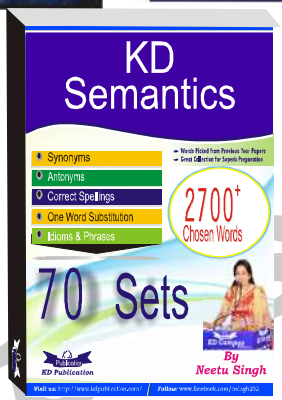
Word	Meaning in English	Meaning in Hindi
Abusive	harsh and insulting	अपमानजनक
Abysmal	extremely poor or bad	अत्यंत बुरा
Agitation	to Excite, anger someone	उत्तेजना, आंदोलन
Brindled	having dark spots on light brown background	चितकबरा
Consensus	general agreement about something	आम सहमति
Dally	to do something slowly	विलंब करना
Detoxify	to remove a poisonous or harmful substance from something	विषहरण
Divisive	causing a lot of disagreement between people and causing them to separate	भाग करनेवाला
Drudge	to do hard, monotonous work	परिश्रम से काम करना
Gory	having or showing a lot of violence	घमासान
Imbrue	to leave a mark on something	रंग चढ़ाना
Inundate	to cover something with a flood of water	बाढ़
Invective	relating to abuse, insult	फटकार
Meritorious	deserving honor or praise	सराहनीय
Modeller	usually a copy of something	प्रतिरूप
Moil	hard work	परिश्रम
Stippled	to draw or paint small dots on something	बिंदूओं में रडांना
Tabby	domestic cat, A female cat.	घरेलू बिल्ली
Turbulance	state of violence, disorder	अशांति
Virtuous	morally good, having or showing virtue	भला/धार्मिक, सदाचारी

SSC MOCK TEST - 156 (ANSWER KEY)

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







76. (C) Change 'for' into 'of' because 'aware' takes its fixed preposition 'of'. 'Aware' or 'Awareness' 'of' something.
For Ex :- I was aware of his laziness.

77. (D) No Error.

78. (A) Tandem :- A group of two people or things that work together or are associated with each other.

79. (D) Indiscriminately :- Affecting or having many people or things in a careless or unfair way.

90. (A) Change 'to have been true' to 'to be true', the correct structure is

too + positive degree + to +V$_1$

For Ex :- She is too weak to walk.

91. (C) Change 'about winning' into 'at winning' because, 'Good at something' is correct formation.
For Ex :- She is good at language.

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