

SSC selection on 27 April 018

- (B) Second is the act of cutting the first.
- (B) Second denotes the activity of the first.
- (B) $294 = 7^2 \times (7 - 1)$
 $1584 = 12^2 \times (12 - 1)$
- (C) Second is the specialist doctor of first.
- (B) $12 \times 8 = 96$ ----REVERSE----69
 $16 \times 3 = 48$ ----REVERSE----84
- (B) All except **Cotton** are synthetic fibres.
- (D) After jumbling the letters, we have
RPUIJA - JAIPUR
SASMA - ASSAM
MUIPINA - MANIPUR
RIPSA - PARIS
All, except Paris, are cities of India
- (C) $527 = 17 \times 31$, $299 = 13 \times 23$, $323 = 17 \times 19$
and **399 = 19 \times 21**. As, 399 is not a product of prime numbers.
- (D) $GO = (20 + 12) + (5 \times 2) = 42$,
 $MILK = (14 + 18 + 15 + 16) + (5 \times 4) = 83$
Pattern is individual sum of Letter code and then add (product of 5 and number of Letters).
So **WATER = (4 + 26 + 7 + 22 + 9) + (5 \times 5) = 93**
- (C) **hcb/aca/bcb/aca/hcb/aca/b**
- (D) Watch 1 loses 2 min in 1 day
Watch 2 gains 2 min in 1 day
 \therefore Relative speed = 4 min in 1 day
So, to show both the watches same time, it should make 12 hrs ($12 \times 60 = 720$ min) revolution, which it would make in
$$\left(\frac{720}{4} \times 1\right) \text{ days}$$

= 180 days
- (C) $9 \times 2 - 6 = 12$,
 $12 \times 2 - 6 = 18$,
 $18 \times 2 - 6 = 30$,
 $30 \times 2 - 6 = 54$,
 $54 \times 2 - 6 = 102$,
 $102 \times 2 - 6 = 198$,
 $198 \times 2 - 6 = 390$
- (D) Father of Deepak's daughter's father Deepak's father. So, the man's brother is Deepak's father or the man is the brother of Deepak's father i.e. Deepak's **uncle**.
- (A) We have : A = 1, B = 2, C = 3,, Y = 25, Z = 26.
Clearly, the code for a word is obtained by dividing the sum of the individual values of its letters by the number of letters in the word.

$$\text{Thus, HOTEL} = \frac{(H+O+T+E+L)}{5}$$

$$= \frac{(8+15+20+5+12)}{5} = \frac{60}{5} = 12$$

$$\text{So, LAMB} = \frac{(L+A+M+B)}{4}$$

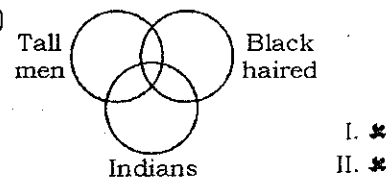
$$= \frac{(12+1+13+2)}{4} = \frac{28}{4} = 7$$

(15-16)

1	2	3	4	5	6	7
Fiat	Bedford	Maruti	Ambassador	Fargo	Cardilac	Mercedes

- (B) Cardilac is at the sixth place which is immediate left of Mercedes at the seventh place.
- (D) Maruti is at the third place and Mercedes is at the seventh place, i.e. Mercedes is fourth to the right of Maruti.
- (D) $8 \wedge 2 > 1 \times 11 < 5 \vee 14$
 $= 8 - 2 + 1 < 11 + 5 \times 14$
 $= 8 - 2 < 11 + 70$
 $= 6 < 81$ is correct relation.

18. (D)



- (D) $12 \times 2.5 + 16 \times 0.5 = 30 + 8 = 38$
 $16 \times 2.5 + 42 \times 0.5 = 40 + 21 = 61$
 $28 \times 2.5 + 60 \times 0.5 = 70 + 30 = 100$
- (C) $(8 - 1) \times (12 - 1) = 7 \times 11 = 77$
 $(12 - 1) \times (13 - 1) = 11 \times 12 = 132$
 $(16 - 1) \times (23 - 1) = 15 \times 22 = 330$
- (D) The sequence is B, C, E, A, D. So, D read the newspaper at last.
- (C) Clearly, it is a $4 \times 4 \times 4$ cube. Below is a cross-section of the cube. Each edge has 2 cubes with 2 faces "RED".
Hence, number of small cubes painted RED on 2 faces = number of edges $\times 2 = 12 \times 2 = 24$ cubes

	R	R	
R			R
R			R
	R	R	

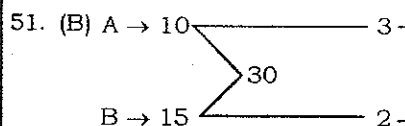
Or we can use the direct formula: $(n - 2) \times 12$.
(where n is the length of edge)
 $= (4 - 2) \times 12$ [Put $n = 4$]
 $= 2 \times 12$
 $= 24$

23. (C)
24. (C)
25. (B)
26. (B) Ashok Patnaik, a 1983-batch Gujarat cadre IPS officer, has been appointed as the new Chief Executive Officer (CEO) of the National Intelligence Grid (NATGRID) and will hold charge till December 31st, 2018. He is the son-in-law of former Prime Minister Manmohan Singh. Currently, Patnaik is posted as Additional Director in the Intelligence Bureau (IB). The NATGRID is an ambitious intelligence network project to strengthen counter-terror capabilities of law enforcement agencies.
27. (D) Down syndrome is caused due to three copies of the genes on chromosome 21, rather than the usual two. The parents of the affected individual are typically genetically normal. Those who have one child with Down syndrome have about a 1% risk of having a second child with the syndrome, if both parents are found to have normal karyotypes.
29. (A) Rajaraja Chola I, popularly known as Raja Raja the Great, was one of the greatest emperors of the Tamil Chola Empire of India who ruled between 985 and 1014 AD. By conquering several small kingdoms in South India, he expanded the Chola Empire as far as Sri Lanka in the south, and Kalinga (Orissa) in the northeast. One of the last conquests of Rajaraja was the naval conquest of the 'old islands of the sea numbering 12,000', the Maldives.
30. (D) Fiscal deficit is when a government's total expenditures exceed the revenue that it generates (excluding money from borrowings). Deficit differs from debt, which is an accumulation of yearly deficits.
31. (C) By the 1960s, the Indian banking industry had become an important tool to facilitate the development of the Indian economy. The Government of India issued an ordinance ('Banking Companies (Acquisition and Transfer of Undertakings) Ordinance, 1969') and nationalised the 14 largest commercial banks with effect from the midnight of 19th July 1969.
32. (C) During his five year rule from 1540 to 1545, Sher Shah Suri set up a new civic and military administration, issued the first Rupiya and reorganised the postal system of India.
33. (B) The book "Ringside with Vijender" has been authored by Rudraneil Sengupta, the deputy editor of Lounge (the weekly feature magazine of Mint). The book throws light on the Beijing Olympics bronze medallist boxer Vijender Singh's sudden decision to turn pro just a year ahead of the 2016 Rio Olympics. It also portrays the moment when Vijendra was awarded India's highest sporting honour Rajiv Gandhi Khel Ratna Award. Beside this, it also contains his struggles, changes in his boxing style, training and his personal life.
34. (D) Galacto Oligosaccharides (GOS), also known as oligogalactose, belong to the group of prebiotics. It is naturally found in soybeans and can be synthesized from lactose. GOS occurs in commercial available products such as food for both infants and adults.
35. (A) Ethyne
 C_2H_2 ($HC \equiv CH$)
36. (D) Two major measures for inflation, which are widely used, are Wholesale Price Index (WPI) and Consumer Price Index (CPI). WPI measures the increase in the prices of a fixed basket of goods prevailing in the wholesale market while CPI measures the increase in the prices of essential commodities purchased by an average consumer prevailing in the retail market. Measured weekly, WPI is the primary inflation measure in India.
37. (C) Harika Dronavalli, an Indian chess grandmaster, has won the 2016 Fide Women's Grand Prix trophy by defeating Russia's Olga Girya in the final in Chendu, China.
39. (B) World's largest temple is Angkor Wat, located in Angkor, Cambodia. This temple was built by Khmer King Suryavarman II in 12th century as his state temple and capital city.
40. (B) The earliest evidence of Agriculture in Indian subcontinent is found at Mehrgarh, which is located in Balochistan state of Pakistan.
42. (B) River Hoover dam is a concrete and gravity dam in black canyon of the Colorado river on the Border between the US states of Arizona and Nevada.
44. (A) There are no computers with the name as in other options. UNIVAC was the first general purpose electronic digital computer designed for commercial use, produced by Universal Accounting Company of John Mauchly and J.P.Eckert in 1951.

45. (A) The Treaty of Bassein (Now called Vasai) was a pact signed on December 31st, 1802 between the British East India Company and Baji Rao II, the Maratha peshwa of Pune (Poona) in India after the Battle of Poona. The treaty was a decisive step in the dissolution of the Maratha Confederacy, which led to the East India Company's usurpation of the peshwa's territories in western India in 1818.

47. (D) Pipavav Shipyard was established in 1997 at west coast of Saurashtra, Gujarat and it is one of the largest and leading shipbuilding company in India that is spread over 500 acres. It was the first corporate shipyard to be granted clearance to build 5 warships per year and currently it is executing a naval offshore patrol vessel.

50. (A) Comma bacillus or Vibrio cholerae is a gram negative comma-shaped bacterium with a polar flagellum that causes cholera in humans.



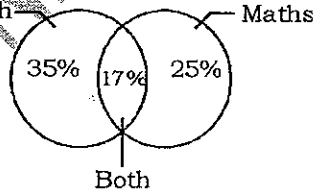
5 days work of A & B = 25 units
Remain work = 5 units
efficiency of C = 2.5 units/day

$$\therefore \text{wages of A} = \frac{6000}{30} \times 3 = ₹ 600$$

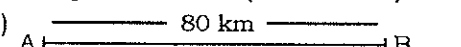
$$\text{wages of B} = \frac{6000}{30} \times 2 = ₹ 400$$

$$\text{wages of C} = \frac{6000}{30} \times 2.5 = ₹ 500$$

52. (A) English Maths



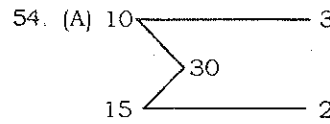
$$\therefore \text{Total pass\%} = 100 - (35 + 17 + 25) = 23\%$$

53. (C) 
Let the speed of current = y km/h
Speed of boat in still water = 13 km/h
ATQ,

$$\frac{80}{13+y} + \frac{80}{13-y} = 13 \quad \dots(i)$$

On solving, $y = 3$

\therefore speed of current = 3 km/hr



man came back after 6 minutes

$$\therefore \text{efficiency of pipe C} = \frac{10}{6} \text{ unit/min}$$

$$\therefore \text{Required time} = \frac{30 \times 6}{10} = 18 \text{ min}$$

55. (A) Volume of bucket

$$= \frac{1}{3} \pi h (r_1^2 + r_2^2 + r_1 r_2)$$

$$= \frac{1}{3} \times \frac{22}{7} \times 45(28^2 + 7^2 + 28 \times 7)$$

$$= \frac{1}{3} \times \frac{22}{7} \times 45(784 + 49 + 196)$$

$$= \frac{1}{3} \times \frac{22}{7} \times 1029$$

$$= 48510 \text{ cu. cm}$$

56. (A) $\therefore xy = 1$

$$\therefore y = \frac{1}{x}$$

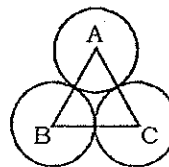
$$x = 8 + 3\sqrt{7}$$

$$\therefore x + \frac{1}{x} = 16$$

ATQ,

$$\frac{x^3 + y^3 + 3xy}{x^2 + y^2 - 2xy} = \frac{x^3 + \frac{1}{x^3} + 3}{x^2 + \frac{1}{x^2} - 2} = \frac{4051}{252}$$

57. (A)



$$AB = 5 \text{ cm} = x + y$$

$$BC = 6 \text{ cm} = y + z$$

$$AC = 7 \text{ cm} = z + x$$

$$\therefore 2(x + y + z) = 5 + 6 + 7 = 18$$

$$\Rightarrow x + y + z = 9$$

$$\Rightarrow 5 + z = 9 \Rightarrow z = 4 \text{ cm}$$

$$\therefore x = 7 - z = 3 \text{ cm and } y = 6 - z = 2 \text{ cm}$$

$$\therefore x = 3 \text{ cm, } y = 2 \text{ cm, } z = 4 \text{ cm}$$

58. (B) Let the two numbers be x and y
then, $x \times y = 24(x - y)$
The above equation is satisfied for $x = 8$ and $y = 6$.
 $8 \times 6 = 24(8 - 6)$
 $\Rightarrow x = 8, y = 6$
Larger no. = 8

59. (C) Let the number of wickets taken by the cricketer before the last match = x

$$\text{ATQ, } \frac{12.4x + 26}{x + 5} = 12.2$$

$$\Rightarrow 12.4x + 26 = 12.2x + 61$$

$$0.2x = 61 - 26 = 35$$

$$x = \frac{35}{0.2} = \frac{350}{2} \Rightarrow 175$$

60. (C) $2^{60} = (2^5)^{12} = (32)^{12}$

$$3^{48} = (3^4)^{12} = (81)^{12}$$

$$5^{24} = (5^2)^{12} = (25)^{12}$$

$$4^{36} = (4^3)^{12} = (64)^{12}$$

it's clear that 3^{48} is the greatest.

61. (D) H.C.F = 4

\ no. be - $4x, 4y, xy$, where x, y are Co-Prime, then

$$4y + 4x = 36, 4(x + y) = 36$$

$$x + y = 9$$

\ Possible pairs = (1, 8) (4, 5) (2, 7)

62. (A) $50\% = \frac{1}{2}, 15\% = \frac{3}{20}$

C.P **S.P** **M.P**

$$2 \times 20$$

$$3 \times 20$$

$$17 \times 3$$

$$40$$

$$51$$

$$\text{₹ 11 profit}$$

$$\downarrow \times 15$$

$$165$$

\ Marked price of bicycle = $60 \times 15 = \text{₹ } 900$

63. (C) $x + \frac{1}{x} = 6, \therefore x^3 + \frac{1}{x^3} = 198$

$$x^2 + \frac{1}{x^2} = 34$$

$$x^4 + \frac{1}{x^4} = 1154$$

\ Now

$$\left(x^4 + \frac{1}{x^4}\right) \left(x^3 + \frac{1}{x^3}\right) = 198 \times 1154$$

$$x^7 + \frac{1}{x^7} = 198 \times 1154 - 6 = 228486$$

64. (B) $50\% = \frac{1}{2}, 33\frac{1}{3}\% = \frac{1}{3}, 16\frac{2}{3}\% = \frac{1}{6}$

Vivek : Aryan : Alka : Priya

$$\frac{3}{2} : \frac{2}{3} : \frac{4}{6} : \frac{2}{6}$$

$$\frac{3 \times 6}{6} : \frac{2 \times 6}{6} : \frac{4 \times 6}{6} : \frac{2 \times 6}{6}$$

$$\frac{18}{6} : \frac{12}{6} : \frac{24}{6} : \frac{12}{6}$$

$$3 : 2 : 4 : 2$$

$$\frac{60}{3} : \frac{40}{2} : \frac{48}{4} : \frac{36}{2}$$

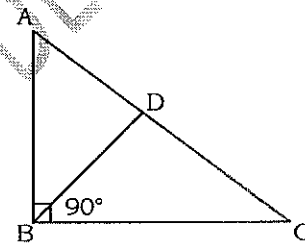
$$20 : 20 : 12 : 18$$

$$\downarrow \times 25$$

$$1500 : 900$$

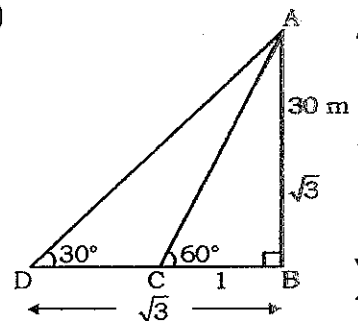
\ Marks of priya = 900

65. (C) In the right-angled triangle the length of median to the hypotenuse is half the length of the hypotenuse.



$$\text{Hence, } BD = \frac{1}{2} AC = 3 \text{ cm}$$

66. (D)



Distance covered by the man = DC

$$= 30\sqrt{3} - \frac{30}{\sqrt{3}}$$

$$= \frac{60}{\sqrt{3}} \text{ m} = 20\sqrt{3} \text{ m}$$

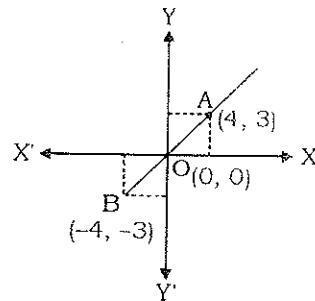
67. (A) Area of path = $x(l + b - x)$

$$= 5(60 + 40 - 5)$$

$$= 5 \times 95 = 475 \text{ m}^2$$

$$\therefore \text{Total cost} = 475 \times \frac{60}{100} = \text{₹ } 285$$

68. (A) This graph shows AB is a straight line which passes through the origin.



69. (A) Let the age of father and son be $50x$ and $20x$ years.

ATQ,

$$50x \times 20x = 1000 \Rightarrow x = 1$$

\ Age of father after 10 years will be

$$50 + 10 = 60 \text{ years}$$

70. (A)

S. I. for 2 years = 8%
C. I. for 2 years = 8.16% \rightarrow Diff = 16

$$\therefore \text{Required sum} = \frac{800}{16} \times 100$$

$$= ₹ 5000$$

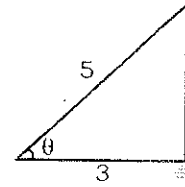
71. (A) Alcohol : water

$$\begin{array}{l} 4 : 3 \\ 4 : 5 \end{array} \xrightarrow{\text{ATQ}} 5$$

\ Quantity of alcohol $\Rightarrow \frac{5}{2} \times 4$

$$\Rightarrow 10 \text{ lit.}$$

72. (C) $3 \tan \theta + 4 = 0 \Rightarrow \tan \theta = -\frac{4}{3}$



$$\Rightarrow \sin \theta = \frac{4}{5}, \cos \theta = -\frac{3}{5}, \cot \theta = -\frac{3}{4}$$

[\because $\sin \theta$ is positive and $\cos \theta$ and $\cot \theta$ are negative in II quadrant].

$$\therefore 2 \cot \theta - 5 \cos \theta + \sin \theta = 2 \left(-\frac{3}{4} \right) - 5 \left(-\frac{3}{5} \right) + \frac{4}{5}$$

$$= -\frac{3}{2} + 3 + \frac{4}{5} = \frac{23}{10}$$

73. (B) Required answer

$$\frac{9}{12} = \frac{3}{4} = 0.75$$

74. (C) Total production of state B = $12 + 18 + 18 = 48$ lakh bales

$$\text{Total production of state A} = 6 + 14 + 21 = 41 \text{ lakh bales}$$

75. (B) Average production in 1992-93

$$= \frac{6+12+5+16+8}{5} = 9.4 \text{ lakh bales}$$

Average production in 1993-94

$$= \frac{14+18+9+9+14}{5}$$

$$= \frac{64}{5} = 12.8 \text{ lakh bales}$$

Two states A & E showed below average production in 1992-93 that showed above average production in 1993-94.

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Addendum	an item of additional material	अतिरिक्त
Berserk	(of a person or animal) out of control with anger or excitement	पागल हो जाना
Bewildered	perplexed and confused	हक्का-बक्का, किंकर्तव्यविमूढ़
Catalogue	a complete list of items, typically one in alphabetical or other systematic order, in particular	सूचीपत्र, तालिका
Comprehension	the capability of understanding something	समझ, ज्ञान
Compulsion	state of being forced to do something	विवशता
Credo	a statement of the beliefs or aims that guide someone's actions	विश्वास, सोच
Emancipation	the fact or process of being set free from legal, social, or political restrictions	मुक्ति
Epilogue	a section at the end of a book or play that serves as a conclusion to what has happened	पुस्तक के अंत में जुड़ा एक अनुभाग, उपसंहार
Eradicate	destroy completely; put an end to	जड़ से मिटाना, खत्म करना
Fanatic	filled with or expressing excessive zeal	कट्टरपंथी
Palpable	able to be felt	महसूस करने योग्य
Perturbance	anxiety; mental uneasiness	बेचैनी, घबराहट
Stoke about	To stir up and feed something	बढ़ाना, हुजूम लगाना
Sustained	continuing for an extended period or without interruption	निरंतर
Syncopate	shorten (a word) by dropping sounds or letters in the middle	बीच के वर्णों या शब्दों को हटाकर शब्दों को छेदा करना
Unassailable	unable to be attacked, questioned, or defeated	अभेद्य, अजेय
Uproar	a loud and impassioned noise or disturbance	शोरगुल, कोलाहल
Vigorous	strong, healthy, and full of energy	जोशीला, उत्साह से भरपूर
Vindictive	having or showing a strong or unreasoning desire for revenge	प्रतिशोध से भरा हुआ
Vulnerable	susceptible to physical or emotional attack or harm	अतिसंवेदनशील, कोमल

SSC Answer key on 27 April 018

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



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