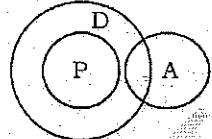





SSC Solution on (30-Mar-17)

1. (B) We celebrate children's day on 14<sup>th</sup> November and Teacher's day on 5<sup>th</sup> September.
2. (D)  $2 \times 3 \times 7 = 42 \Rightarrow 42 \times 2.5 = 105$   
 $3 \times 8 \times 2 = 48 \Rightarrow 48 \times 2.5 = 120$
3. (A) 

C	A	N	O	M	O	P	R
+2	+3	+5	+4	+2	+3	+5	+4
↓	↓	↓	↓	↓	↓	↓	↓
E	D	S	S	O	R	U	V
4. (B) Tokyo is the Capital of Japan and Rangoon is the capital of Burma.
5. (C) Except April, other months have 31 days
6. (D) Except twitter, others are search engine.
7. (A) Except M, others have same water image.
8. (D) Except 530, others are product of two continuous natural numbers.
9. (B)  $8 = 2 \times 2 \times 2$  (a cube number)  
Four years ago  
 $8 - 4 = 4 = 2 \times 2$  (Square of the same whole number)  
Next perfect cube number  
 $27 = 3 \times 3 \times 3$   
 $\therefore 27 - 8 = 19$  years  
So, he should wait for another 19 years.

10. (C)  1. True 2. False

11. (B)  $V \times X - I = 5 \times 10 - 1 = 49$   
 $IV \times IX - V = 4 \times 9 - 5 = 31$   
 $VI \times V - II = 6 \times 5 - 2 = 28$   
 $IX \times X - V = 9 \times 10 - 5 = 85$
12. (B) 

5	4	7	8
+2	8	6	7
8	3	4	5
13. (B)  $12 \times 3 = 9 \times 4$   
 $16 \times 5 = 8 \times 10$   
 $12 \times 9 = 6 \times 18$
14. (C)
15. (C)  - 10 triangles  
 - 8 triangles  
 - 6 triangles  
 $\therefore$  Total number of triangles =  $10 + 8 + 6 = 24$

16. (C) 

12	4	4	7	18	77
×0.25+1	×0.5+2	×1+3	×2+4	×4+5	

17. (B) II, III, V, VII, XI, XIII, XVII  
2 3 5 7 11 13, 17

(Continuous Prime numbers)

18. (D) 

18	10	12	27	112
×0.5+1	×1+2	×2+3	×4+4	

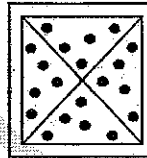
19. (A)

	Vowel	Consonant	Result	Reverse
BABY	1	3	$13^2 = 169$	961
BABU	2	2	$22^2 = 484$	484
ANT	1	2	$12^2 = 144$	441
THREE	2	3	$23^2 = 529$	925

20. (D) cabd/abd/bd/cabd/abd

21. (A)  $24 \times 5 - 8 + 2 + 9$   
 $= 24 \times 5 - 4 + 9$   
 $= 120 - 4 + 9$   
 $= 125$

22. (B)



23. (C) L.H.S =  $24 + 18 + 3 - 4 \times 5$   
 $= 24 + 6 - 4 \times 5$   
 $= 24 + 6 - 20$   
 $= 30 - 20$   
 $= 10 = R.H.S$

24. (B)

25. (B) 34, 14, 59, 77  
C A P E

27. (D) Geologists believe that the Indian peninsula was a part of the Gondwana land (continent) which drifted northwards and India, Africa and other parts separated from each other.

28. (A) We measure economic freedom based on 12 quantitative and qualitative factors, grouped into four broad categories, or pillars, of economic freedom:

- Rule of Law (property rights, government integrity, judicial effectiveness)
- Government Size (government spending, tax burden, fiscal health)
- Regulatory Efficiency (business freedom, labour freedom, monetary freedom)
- Open Markets (trade freedom, investment freedom, financial freedom)

29. (B) PM resigns, if he loses the majority in the house is a convention which is not mentioned in the constitution. Conventions are unwritten practices which are binding on the three organs of the State. Unlike the President, the Prime Minister does not have a fixed tenure. The full term of the Prime Minister is five years, which coincides with the normal life of the Lok Sabha. However, the term can end sooner if he loses the vote of confidence in the Lower House. So, it can be said that he remains in power as long as he enjoys the confidence of the Lok Sabha. The Prime Minister can also resign by writing to the President. There is no term limits on the office of the Prime Minister. There is also no official retirement age.
30. (C) A fuse is a type of alloy to protect an electric protection device. It is placed in the main circuit. It melts when too much current flows. Short circuit, overload or device failure is often the reason for excessive current. The high resistance of the element used in fuse generates heat due to the excessive current flow. It has low melting point so that it melts when overloading takes place thereby saving the other wires from getting damaged.
31. (D) Crookes glass is a type of glass that contains Cerium and other rare earths and has a high absorption of ultraviolet radiation used in sunglasses.
- Soda glass: Soda-lime glass, also called soda-lime-silica glass, is the most prevalent type of glass, used for window panes and glass containers (bottles and jars) for beverages, food, and some items.
  - Pyrex glass: Pyrex is a brand introduced by Corning Inc. in 1908 for a line of clear, low-thermal-expansion borosilicate glass used for laboratory glassware and kitchenware.
  - Jena glass: glass of fine quality especially suited for chemical and optical ware and other scientific and industrial applications.
32. (B) Pitcher plant is an insectivorous plant. It feeds on living creatures including insects and small mammals. This plant attracts the prey with a smell of rotting meat. The victim is dissolved by some chemical enzymes.
33. (C) Mumbai has been named as the richest Indian city with a total wealth of \$820 billion, according to recently released New World Wealth report. It is home to 46,000 millionaires and 28 billionaires, and is followed in terms of wealth by Delhi, Bengaluru, Hyderabad and Pune. Delhi is home to 23,000 millionaires and 18 billionaires with a total wealth of \$450 billion, while Bengaluru with a total wealth of \$ 320 billion houses 7,700 millionaires and 8 billionaires. Hyderabad is home to 9,000 millionaires and 6 billionaires.
34. (A) Gopal Baglay, the 1992-batch officer of the Indian Foreign Service (IFS), has been appointed as the new spokesperson of the Ministry of External Affairs (MEA). Earlier, he headed the division of the MEA dealing with Pakistan. He has also served as the Deputy High Commissioner to Islamabad. Baglay replaced Vikas Swarup, who is headed to Canada as envoy.
35. (A) Dennis Hayes and Dale Heatherington released the 80-103A Modem in 1977. The Modem and their subsequent modems become a popular choice for home users to connect to the Internet and get online.
37. (A) The important crop of Barak valley is jute, because it is situated in Assam. The temperature of the valley varies from 25° to 30°C and rainfall varies from 100 to 200 cm, which is ideal for jute cultivation.
39. (C) Oath or affirmation by the President under article 60; Oath or affirmation by Judge of SC, Members of Parliament, Ministers for the Union comes under Third Schedule of the Constitution.
40. (C) Ball bearings are used to reduce friction. Friction is directly proportional to effective surface area. So if effective surface area is reduced then friction will also reduce.
41. (B) The lightest metal in the periodic table is lithium (Li) with atomic number 3 density 0.53 kg/L. Lithium metal is extremely soft (and highly reactive) and so is unusable for many applications. Osmium is a hard metallic element which has the greatest density of all known elements. It is twice as heavy as lead, and has a specific gravity of 22.59.

42. (A) Deficiency of vitamin C causes Scurvy, disease of gums. Deficiency of vitamin D causes Rickets, a disease of bones and Deficiency of Vitamin A causes night blindness, a disease of eyes.
43. (B) Ankur Mittal has won silver in men's double trap at the International Shooting Sport Federation (ISSF) World Cup at the Karni Singh Shooting Range in New Delhi. Beside this, in the mixed team 10m air pistol event, the Indian pair of Heena Sidhu and Jitu Rai won the 'gold badge'.
44. (A) Textile Labour Association which is normally known as TLA Ahmadabad was founded by Mahatma Gandhi in the year of 1920. After Mahatma return from South Africa in 1915 he decided to live permanently in India and for that he viewed many places and in the last he chose Ahmadabad in Gujarat for his satyagrah ashram. The main reason for choosing Ahmadabad was Textile Mills, Ahmadabad was known as a Manchester of India where most of the cotton Mills were situated.
45. (D) The approximate representation of land use is classified as net area sown. 46%, forests 23%, other areas 30%.
47. (D) Section C of the Forest Dwellers Act provides a transparent three step procedure for deciding on who gets rights. Firstly, the Gram Sabha makes a recommendation i.e, who has been cultivating land for how long, which minor forest produce is collected etc. The Gram Sabha plays this role because it is a public body where all people participate and hence is fully democratic and transparent. The Gram Sabha's recommendation goes through two stages of screening committees- the Taluka and the District levels.
48. (C) The compound Zinc Oxide (ZnO) is called philosopher's wool. Alchemists, as part of their rituals, would burn Zinc in air and collect the residue, which formed into white woolly tufts. They called it Lana philosophica in Latin, meaning philosopher's wool. Zinc Oxide has many uses: as white pigment in paints, component in Zinc ointment for treating skin diseases, material in sun screens and sun lotions, in rubber manufacturing and in photocopying products.
49. (C) Parathyroid hormone is secreted from parathyroid gland. This hormone regulates Calcium and Phosphate level in blood. Parathyroid hormone raises the level of Calcium in the blood and decreases the level of Phosphorous in the blood.
50. (D) Zootopia, directed by Byron Howard and Rich Moore, has won the Best Animated Feature Film, at the 89th Oscar Academy Awards at the Dolby Theatre in Los Angeles, California. The film details the unlikely partnership between a rabbit police officer and a red fox con artist as they uncover a conspiracy which involves the disappearance of predator inhabitants of a mammalian metropolis.
51. (A)  $100\% = 360^\circ \Rightarrow 1\% = 3.6^\circ \Rightarrow 8\% = 3.6 \times 8 = 28.8$
52. (A)  $20\% - 15\% = 5\% = 6000 \text{ ₹}$   
Required difference = ₹ 6000
53. (B) Required percent =  $\frac{8}{32} \times 100\% = 25\%$
54. (D) Let the ratio of A : B : C  
ATQ,  
Also,  $A \times 2 = B \times 3$  ... (i)  
Also,  $B = 4C$  and  $2A = 3B$  ... (ii)  
 $B = 4C \Rightarrow 3B = 12C$   
 $\Rightarrow 2A = 3B = 12C \Rightarrow A : B : C = 6 : 4 : 1$   
 $\therefore$  Share of B =  $\frac{4}{11} \times 814000 = \text{₹ } 2,96,000$
55. (A) Let the distance covered by a car be  $3x$  km  
Average speed =  $\frac{\text{Total distance travelled}}{\text{Total time taken}}$   
 $= \frac{3x}{\frac{x}{20} + \frac{x}{40} + \frac{x}{60}} = \frac{3x}{\frac{6x + 3x + 2x}{120}}$   
 $= \frac{3x \times 120}{11x} = 32\frac{8}{11} \text{ km/hr}$
56. (A) Side of square =  $\sqrt{1225} = 35 \text{ cm}$   
 $\therefore$  Length of wire =  $35 \times 4 = 140 \text{ cm}$   
 $\therefore 2\pi r = 140 \Rightarrow 2 \times \frac{22}{7} \times r = 140$   
 $\Rightarrow r = \frac{140 \times 7}{2 \times 22} \text{ cm}$   
 $\therefore$  Required Diameter =  $2r = \frac{490}{11} = 44\frac{6}{11} \text{ cm}$

57. (B) Area of the base =  $\frac{1}{2}$  (sum of parallel sides)  
× perpendicular distance

$$= \frac{1}{2} (14 + 8) \times 8 = 88 \text{ sq. cm}$$

∴ Volume = Area of the base × Height  
⇒ 1584 = 88 × Height

$$\therefore \text{Height} = \frac{1584}{88} = 18 \text{ cm}$$

58. (D)  $\theta = 25^\circ = \frac{25 \times \pi}{180}$  radians =  $\frac{5\pi}{36}$  radians

$$\text{Also, } \theta = \frac{s}{r}$$

$$\Rightarrow r = \frac{22}{\frac{5\pi}{36}} = \frac{22 \times 36}{5\pi} = \frac{22 \times 36 \times 7}{5 \times 22} \text{ meter}$$

$$= 50.4 \text{ meter}$$

59. (B) Let the required percent be  $x$   
ATQ,

$$\frac{x}{100} \times 40 + \frac{60}{100} \times 40 = \frac{70}{100} \times 8$$

$$\Rightarrow \frac{40x + 2400}{100} = \frac{5600}{100}$$

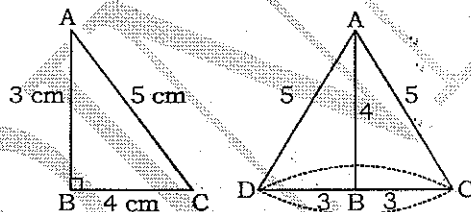
$$\Rightarrow 40x + 2400 = 5600$$

$$\Rightarrow 40x = 3200$$

$$\therefore x = \frac{3200}{40} = 80$$

∴ Required percent = 80%

60. (A)



After revolution, a cone of radius 5 cm and height 12 cm is formed

$$\therefore \text{Volume of the cone} = \frac{1}{3} \pi (3)^2 \times 4 = 12 \pi \text{ cm}^3$$

61. (D) Let A's cost be  $x$

$$\frac{110}{100} \times \frac{120}{100} \times \frac{125}{100} \times x = 16.5$$

$$x = \frac{16.5 \times 100 \times 100 \times 100}{110 \times 120 \times 125} = ₹10$$

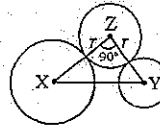
∴ Required cost = ₹ 10

62. (D) Required number = H.C.F of (1268 - 7) and (2820 - 7)

$$\Rightarrow \text{H.C.F of } 1261 \text{ and } 2813 = 97$$

∴ Required number = 97

63. (A)



$$\angle XZY = 90^\circ$$

$$XY = (9 + r) \text{ cm,}$$

$$YZ = (r + 2) \text{ cm}$$

$$XY = 17 \text{ cm}$$

$$\therefore XY^2 = XZ^2 + ZY^2$$

$$\Rightarrow 17^2 = (9 + r)^2 + (r + 2)^2$$

$$\Rightarrow 289 = (81 + r^2 + 18r) + (r^2 + 4r + 4)$$

$$\Rightarrow 2r^2 + 22r + 85 = 289$$

$$\Rightarrow r^2 + 11r - 102 = 0$$

$$\Rightarrow (r - 6)(r + 17) = 0$$

$$\Rightarrow r = 6 \text{ cm}$$

∴ Required value of  $r = 6 \text{ cm}$

64. (A) First number =  $(\sqrt{5})^2 = 5$

Let the second number be  $x$ .

$$\therefore x^2 + 5^2 = 169$$

$$\Rightarrow x^2 = 169 - 25 = 144$$

$$\Rightarrow x = \sqrt{144} = 12$$

$$\therefore \text{Cube of } 12 = 1728$$

65. (D)  $\sin 18x = \cos 12x$

$$\Rightarrow \sin 18x = \sin (90^\circ - 12x)$$

$$\Rightarrow 18x = 90^\circ - 12x$$

$$\Rightarrow 30x = 90^\circ$$

$$\Rightarrow x = 3^\circ$$

$$\therefore 2(\tan 15x + \cot 15x) = 2(\tan 45^\circ + \cot 45^\circ) = 4$$

66. (B) Let the number of guavas eaten by him on the first day be  $x$ .

ATQ,

$$x + x + 9 + x + 18 + x + 27 + x + 36 = 180$$

$$\Rightarrow 5x + 90 = 180$$

$$\Rightarrow 5x = 180 - 90 = 90$$

$$\Rightarrow x = \frac{90}{5} = 18$$

∴ Required number of guavas = 18

67. (B) A → 24  
B → 32  
C → 60  
Total unit of work = 480

ATQ,

$$\frac{A+B+C}{7 \text{ days}} + \frac{B+C}{5 \text{ days}}$$

$$\frac{301}{7} + \frac{115}{5}$$

$$\text{Total work done} = 301 + 115 = 416 \text{ units}$$

$$\text{Remaining work} = 480 - 416 = 64 \text{ units}$$

$$\therefore \text{Required time} = \frac{64}{8} = 8 \text{ days}$$

68. (D) Since A, B and C are the angles of a  $\Delta$ .  
 $\therefore A + B + C = 180^\circ$   
 Now,  $A - B = 15^\circ$ ,  $B - C = 30^\circ$ ,  
 $\therefore B = C + 30^\circ$   
 $\Rightarrow A = B + 15^\circ = C + 30^\circ + 15^\circ = C + 45^\circ$   
 $\Rightarrow A + B + C = (C + 45^\circ) + (C + 30^\circ) + C = 180^\circ$   
 $\Rightarrow 3C = 180^\circ - 75^\circ = 105^\circ$   
 $\Rightarrow C = 35^\circ$   
 $\therefore A = 35^\circ + 45^\circ = 80^\circ$   
 $\Rightarrow B = 80^\circ - 15^\circ = 65^\circ$   
 $\Rightarrow C = 65^\circ - 30^\circ = 35^\circ$   
 Then,  $2\angle A + \angle B - 3\angle C = 2 \times 80^\circ + 65^\circ - 3 \times 35^\circ = 120^\circ$
69. (C)  $CD \parallel AB$   
 $\therefore \angle AED = \angle PDC = 42^\circ$  (corresponding angle)  
 $\therefore \angle DEF = 180^\circ - 82^\circ - 42^\circ = 56^\circ$   
 $\therefore QD \parallel EF$   
 $\therefore \angle PDQ = \angle DEF = 56^\circ$  (corresponding angle)

70. (C)  $(3 + 2\sqrt{2})(3 - 2\sqrt{2}) = (3)^2 - (2\sqrt{2})^2 = 9 - 8 = 1$

Also,  $3 + 2\sqrt{2} = \frac{1}{3 - 2\sqrt{2}}$

$\therefore (x + y)^3 + (x - y)^3$   
 $= x^3 + y^3 + 3x^2y + 3xy^2 + x^3 - y^3 - 3x^2y + 3xy^2$   
 $= 2x^3 + 6xy^2$

$\therefore 3 + (3 + 2\sqrt{2})^3 + (3 - 2\sqrt{2})^3$

$= 3 + \left(\frac{1}{3 + 2\sqrt{2}}\right)^3 + \left(\frac{1}{3 - 2\sqrt{2}}\right)^3$

$= 3 + (3 - 2\sqrt{2})^3 + (3 + 2\sqrt{2})^3$

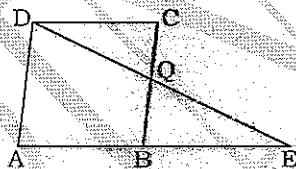
$= 3 + (2 \times (3)^3 + 6 \times 3 \times (2\sqrt{2})^2)$

$= 3 + (2 \times 27 + 18 \times 8)$

$= 3 + 54 + 144 = 201$

71. (D)  $AD \parallel BC$

$\Rightarrow AD \parallel BQ$



Point B is the mid-point of AE.

$\therefore Q$  is the mid-point of DE.

In  $\Delta$ s DQC and BQE.

$\angle DQC = \angle BQE$

$\angle DCQ = \angle QBE$

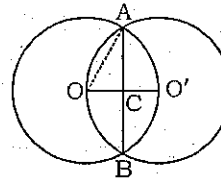
$\angle CDQ = \angle QEB$

$\therefore$  Both  $\Delta$ DQC and  $\Delta$ BQE are similar.

$\Rightarrow CQ : QB = 1 : 1$

$\therefore$  Required Ratio = 1 : 1

72. (C)



$OC = 4$  cm

$OA = 8$  cm

$\therefore AC = \sqrt{8^2 - 4^2} = \sqrt{64 - 16} = \sqrt{48} = 4\sqrt{3}$

$\Rightarrow AB = 2AC = 8\sqrt{3}$  cm

73. (A) Let price of the third variety =  $x$  per kg.

ATQ,

$(36 \times 2) + (48 \times 3) + (4 \times x) = 9 \times 81$

$72 + 144 + 4x = 729$

$\Rightarrow 216 + 4x = 729$

$\Rightarrow 4x = 513$

$\Rightarrow x = \frac{513}{4} = ₹ 128.25$

$\therefore$  Required cost = ₹ 128.25

74. (D) Average of first seventeen odd multiples

of 23 =  $\frac{23(1+3+5+7+\dots+33)}{17} = \frac{23 \times 17^2}{17}$

$= 23 \times 17 = 391$

75. (A)  $x^2 + 4y^2 + z^2 - 2x - 4y - 2z + 3 = 0$

$\Rightarrow x^2 - 2x + 1 + 4y^2 - 4y + 1 + z^2 - 2z + 1 = 0$

$\Rightarrow (x-1)^2 + (2y-1)^2 + (z-1)^2 = 0$

$\Rightarrow x-1 = 0, 2y-1 = 0$  and  $z-1 = 0$

$\Rightarrow x = 1, y = \frac{1}{2} = 0.5$  and  $z = 1$

So,  $3x + 4y + 5z = (3 \times 1) + (4 \times 0.5) + (5 \times 1)$   
 $= 3 + 2 + 5 = 10$

## MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Accord	be harmonious or consistent with	सहमति
Alliteration	The use of words that begin with the same sound near one another (Eg- Dancing daffodils)	अनुप्रास
Bellyache	an abdominal pain, to complain	पेट दर्द, शिकायत करना
Cabby	Cab driver	कार चालक
Cavlier	Gallant, Gentleman, Debonair	वीर, भद्र पुरुष, संश्रान्त
Coercion	force, pressure	दबाव
Confession	a statement accepting your mistake/crime	दोष स्वीकृति
Conquerors	a person who wins a place or people	विजेता
Conviction	a firmly held belief or opinion	विश्वास
Dissension	disagreement that leads to discord	मतभेद
Epithet	a word or phrase that describes a person of thing	विशेषण
Glorified	accorded sacrosanct or authoritative standing	गौरवान्वित
Gloriously	having great beauty and splendor	भव्यता के साथ
Manoeuvred	manipulate (someone or something) in order to achieve	छल करना
Oxymoron	conjoining contradictory terms	विरोधाभास
Wagoner	one who drives a wagon	वैन चलाने वाला
Whine	a long, high-pitched complaining cry	कराहना

*SSC Answer Key on (30 Mar/17)*

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



**Pinnacle Learning Destination**

Plot No.3 Third Floor Main Road  
Raghunathpur, Sector 22 -Noida,  
Uttar Pradesh  
Pin-201301Ph-+91-9555662244

PINNACLE