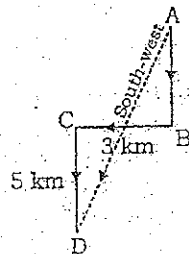


SSC solution on 19 Jan - 2018

- (B) $324 \Rightarrow (3 \times 4)^2 = 144$
 $228 \Rightarrow (2 \times 8)^2 = 256$
- (D) Cat's foot is called Paw and Horse's foot is called hoof.
- (A) Capital of China is Beijing and Indonesia is Jakarta.
- (C) 31 June 2014 can't be found in the calendar as June month is of 30 days.
- (B) Pronunciation of Low is different from other three.
- (D) $3 \times 4 \times 3 = 6 \times 6$
 $2 \times 8 \times 4 = 8 \times 8$
 $2 \times 4 \times 2 = 4 \times 4$
 $9 \times 3 \times 8 \neq 3 \times 3$

7. (D)



Hence, he is in South-West direction.

8. (A) Let the number of persons be x . Then,

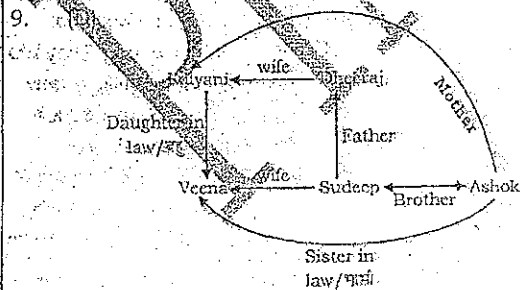
$$\frac{960}{x-4} - \frac{960}{x} = 40 \Rightarrow \frac{1}{x-4} - \frac{1}{x} = \frac{40}{960}$$

$$\Rightarrow \frac{x - (x-4)}{x(x-4)} = \frac{1}{24}$$

$$\Rightarrow x^2 - 4x - 96 = 0 \Rightarrow (x-12)(x+8) = 0$$

$x = 12$ (as the number of persons can't be negative)

So, required number of persons = $12 - 4 = 8$

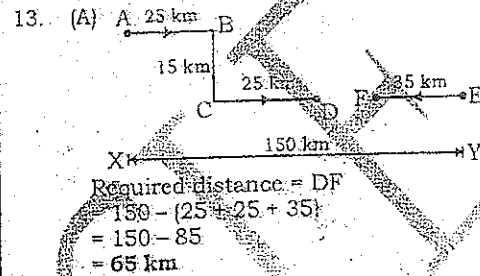


10. (C)

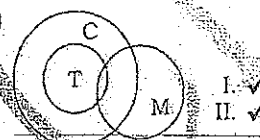
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Bottom	□	Blank	—

Hence, only 1, 3 and 4 is similar to the box formed from the question figure.

- (B) $16 \times 0.5 + 1 = 9$
 $9 \times 1 + 2 = 11$
 $11 \times 2 + 3 = 25$
 $25 \times 4 + 4 = 104$
 $104 \times 8 + 5 = 837$
- (A) Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.



14. (C)



15. (C) Bus and Train are different from each other but some travellers travel by bus and some travel by train.

16. (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	$\Rightarrow 3^3 - 1^2 = 26$
Christian	6	2	$\Rightarrow 6^3 - 2^2 = 212$

17. (C) The symbols of the adjacent faces of the face with symbol * are @, -, + and \$. Hence the required symbol is @.

18. (A) $8 \times 4 \times 5 = 160 \Rightarrow \frac{160}{10} = 16$

$$9 \times 5 \times 4 = 180 \Rightarrow \frac{180}{10} = 18$$

$$8 \times 12 \times 5 = 480 \Rightarrow \frac{480}{10} = 48$$

19. (B) $4 \times 3 = 12 \Rightarrow 12^2 = 144$

$$8 \times 2 = 16 \Rightarrow 16^2 = 256$$

$$5 \times 3 = 15 \Rightarrow 15^2 = 225$$

$$2 \times 9 = 18 \Rightarrow 18^2 = 324$$

20. (C) $5^3 - 8^2 = 125 - 64 = 61$

$$2^5 - 4^2 = 32 - 16 = 16$$

$$3^4 - 2^6 = 81 - 64 = 17$$

$$7^3 - 18^2 = 343 - 324 = 19$$

21. (C)

22. (B)

23. (D)

24. (D)

25. (B) $2 \times 3 \Rightarrow (2+3) - (2 \times 3) = 5 - 6 = -1$

$$3 \times 4 \Rightarrow (3+4) - (3 \times 4) = 7 - 12 = -5$$

$$4 \times 6 \Rightarrow (4+6) - (4 \times 6) = 10 - 24 = -14$$

$$6 \times 9 \Rightarrow (6+9) - (6 \times 9) = 15 - 54 = -39$$

26. (B) China has successfully launched "Feng-Yun-4", a new generation weather satellite into geostationary orbit from the Xichang Satellite Launch Centre by a Long March-3B carrier rocket. The launch marked the 242nd mission of China's Long March series of rockets. The FY-4 series is an improved generation of geosynchronous meteorological satellites.
27. (D) The Indian Council of Food and Agriculture (ICFA) has conferred the 2016 Global Agriculture Leadership Award to Tata Sons interim Chairman Ratan Tata in Mumbai for his transformational role in scaling Tata Group as the globally admired group during his stint of two decades as Chairman. The ICFA is an apex body of India that act as think tank, policy research, trade facilitation, development catalyst and monitor centre for food and agriculture sector and serve as global platform for partnerships.
28. (B) The book "The Other One Percent: Indians in America" has been authored by Sanjoy Chakravorty and Devesh Kapur. The book is the first comprehensive and data-driven account of the selection, assimilation and entrepreneurship of Indians in America.
29. (B) In 1688, the first Municipal Corporation of India was set up in Madras.
30. (C) Indian batswoman Smriti Mandhana has been named in the ICC Women's Team of the Year 2016, which will be captained by Stafanie Taylor, a West Indies player. This is the first time that the International Cricket Council (ICC) has named a women's team of the year. Beside this, Suzie Bates of New Zealand has become the first cricketer to clinch both the ICC Women's ODI and T20 Player of the Year awards.
31. (C) International Day of Older Persons is observed on 1 October every year. On 14 December 1990, the United Nations General Assembly designated 1st October as the International Day of Older Persons. This was preceded by initiatives such as the Vienna International Plan of Action on Ageing which was adopted by the 1982 World Assembly on Ageing and endorsed later that year by the UN General Assembly.
32. (C) Temple Architecture of Cholas:
 - Brihadishwara Temple of Tanjore was built by Rajaraja Chola-I.
 - Koranganatha Temple, Srinivasanallur was built by Parantaka Chola-I.
33. (B) Photosynthesis occurs between wavelengths of about 400 nm and 750 nm. Red and blue colour wavelength is categories in this wavelength. So, plants absorb these colours. Photosynthesis does not occur in the infra-red or in ultraviolet light.
34. (B) The Haryana government has launched "Haryana Immunization Incentives and Information Programme" to increase immunization rates of children between the age group of 0-12 months. The programme would be implemented in 7 districts viz. Bhiwani, Jhajjar, Mewat, Palwal, Panipat, Rewari and Sonapat covering 140 Primary Health Centres (PHCs). The purpose of the programme is to significantly improve immunization coverage in low performing districts, especially for girls, who in all 7 districts have lower immunization rates than boys.
35. (C) The battle of Dharmat was fought between Aurangzeb and Dara Shikoh in 1658 for Shahjahan's throne. Dara Shikoh was defeated by Aurangzeb.
36. (B) The Government of India (GoI) will contribute \$500,000 to United Nations' Central Emergency Response Fund (CERF) for the year 2016-17. The CERF is a humanitarian fund to promote early and coordinated action and response to save lives, to increase response to time-crucial requirements based on demonstrable needs and to strength the core elements of humanitarian response in under-funded crises.
37. (D) First Anglo Burmese War - 1824-1826
Third Mysore War - 1790-1792
First Anglo-Maratha War - 1775-1782
First Anglo - Sikh War - 1845-1846
Second Anglo - Sikh War - 1848-1849.
38. (A) Biogas comprises mainly methane (CH₄) and carbon dioxide (CO₂) and small amounts of hydrogen sulphide (H₂S), moisture and siloxanes.
39. (A) Average fat content in buffalo milk is 7.2% and average fat content in cow milk is 4.4%. As per the nutrient components, buffalo milk contains all the nutrients in higher proportion than cow's milk.

40. (D) According to Article 368 an amendment of the Constitution may be initiated only by the introduction of a Bill for the purpose in either House of Parliament, and when the Bill is passed in each House by a majority of the total membership of that House present and voting, it shall be presented to the President who shall give his assent to the Bill and there upon the Constitution shall stand amended in accordance with the terms of the Bill.
41. (D) Water pollution in river or any other water body is measured by amount of dissolved oxygen. Water pollution can be measured on the basis of parameters like dirtiness, change in texture, total suspended solid and other important factors.
42. (A) Washing machine works on the principle of centrifugation. Centrifugation is a process that involves the use of the centrifugal force for the separation of mixtures with a centrifuge, used in industry and in laboratory settings.
43. (A) An astronomical unit (abbreviated as AU) is a unit of length equal to about 149,597,870.7 kilometers or approximately the mean Earth-Sun distance. The astronomical constant whose value is one astronomical unit is referred to as unit distance and is given by the symbol A.
45. (D) Polycarbonates are the polymer widely used in making bullet proof materials. Bullet proof glass is made by layering a polycarbonate material between pieces of ordinary glass in a process called lamination. A bullet fired will pierce the outside layer of the glass, but the layered polycarbonate glass material is able to absorb the bullet's energy and stop it. Polycarbonate panels are used for covering advertising posters, construction of office buildings for sound proofing. Polycarbonate is also used for making bullet proof jackets.
46. (B) Agricultural Produce Market Committee Acts of respective states are responsible for markets in agricultural products.
47. (D) • Air at 0° - 331.5 m/s
• Water at - 1493 m/s
• Wood at - 4500 m/s
48. (A) The blood group of the parents are AB and O, the child's blood group may be A or B and since the boy is adopted and it is given in the question that "the blood group of the three sons are A+, B+, O+".
49. (A) In stormy weather condition the pressure of atmosphere varies, which causes sudden fall in barometer reading.
51. (C) Let the total number of book pages be x , then, number of unread pages in first week was $\frac{6x}{13}$
so, after second week unread pages = 96
 $\Rightarrow \frac{6x}{13} \times \left(\frac{4}{9}\right) = 96$
 $\Rightarrow x = 468$
 \therefore Total no. of book pages = 468
52. (D) Let the speed of the trains be x and y respectively
length of train 1 = $27x$
length of train 2 = $17y$
Relative speed = $x + y$
Time taken to cross each other = 23 sec.
 $\Rightarrow \frac{(27x+17y)}{(x+y)} = 23$
 $\Rightarrow (27x + 17y) = 23(x + y)$
 $\Rightarrow 4x = 6y$
 $\Rightarrow \frac{x}{y} = \frac{6}{4} = \frac{3}{2} = 3 : 2$
 \therefore Required Ratio = 3 : 2
53. (C) Work done by P, Q and R in 1 hour
 $= \frac{1}{8} + \frac{1}{10} + \frac{1}{12} = \frac{37}{120}$
Work done by Q and R in 1 hour
 $= \frac{1}{10} + \frac{1}{12} = \frac{22}{120} = \frac{11}{60}$
From 9 am to 11 am, all the machines were operating. i.e., they all operated for 2 hours
and work completed = $2 \times \left(\frac{37}{120}\right) = \frac{37}{60}$
Pending work = $1 - \frac{37}{60} = \frac{23}{60}$
Hours taken by Q and R to complete the
pending work = $\frac{\left(\frac{23}{60}\right)}{\left(\frac{11}{60}\right)} = \frac{23}{11} = 2$ approx.
Hence the work will be completed approximately 2 hours after 11 am; i.e. around 1 pm
54. (A) Let required number of bottles be x
Machine 6:10 }
Minutes 1:4 } $\therefore 270 : x$
 $\Rightarrow 6 \times 1 \times x = 10 \times 4 \times 270$
 $\Rightarrow x = \frac{10 \times 4 \times 270}{6} = 1800$
 \therefore Required number of bottles = 1800

55. (D) $\therefore \frac{1}{x+y} = \frac{1}{x} + \frac{1}{y} = \frac{y+x}{xy}$

$\Rightarrow (x+y)^2 = xy$
 $\Rightarrow x^2 + 2xy + y^2 = xy$
 $\Rightarrow x^2 + xy + y^2 = 0$

56. (A) Expression = $\frac{6 \sin \theta + 3 \cos \theta}{\sin^3 \theta + 2 \cos^3 \theta + 3 \cos \theta}$

Dividing numerator and denominator by $\cos \theta$,

$= \frac{6 \tan \theta + 3}{\tan^3 \theta + 2 \cos^2 \theta + 3}$

$= \frac{6 \tan \theta + 3}{2 \sin^2 \theta + 2 \cos^2 \theta + 3}$ ($\because \cos \theta = \frac{1}{\sqrt{5}}$
 $\Rightarrow \tan \theta = 2$)

$= \frac{6 \times 2 + 3}{2(\sin^2 \theta + \cos^2 \theta) + 3} = \frac{15}{5} = 3$

57. (D) Area of parallelogram = Base \times Ht

$\Rightarrow (p^2 - 4) = (p + 4)(p - 3)$

$\Rightarrow p^2 - 4 = p^2 + p - 12$

$\Rightarrow p = 8$

\therefore Required area = $p^2 - 4 = 8^2 - 4 = 60$ sq. unit

58. (C) A can complete the work in 12 days working 8 hrs a day

\Rightarrow Number of hrs A can complete the work = $12 \times 8 = 96$ hrs

\Rightarrow Work done by A in 1 hr = $\frac{1}{96}$

B can complete the work in 8 days working 10 hrs a day

\Rightarrow Number of hrs B can complete the work = $8 \times 10 = 80$ hrs

\Rightarrow Work done by B in 1 hr = $\frac{1}{80}$

Work done by A and B in 1 hr

$= \frac{1}{96} + \frac{1}{80} = \frac{11}{480}$

\Rightarrow A and B can complete the work in $\frac{480}{11}$ hrs

A and B works 8 hours a day

Hence total days to complete the work with A and B working together

$= \frac{\left(\frac{480}{11}\right)}{(8)} = \frac{60}{11} \text{ days} = 5 \frac{5}{11} \text{ days}$

59. (C) Here, area $\Delta AMN = \frac{1}{2}$ (area ΔABC)

or, $\frac{\text{area of } \Delta AMN}{\text{area of } \Delta ABC} = \frac{1}{2}$

$\Rightarrow \left(\frac{AM}{AB}\right)^2 = \frac{1}{2}$

$\Rightarrow \sqrt{2} AM = AB$

$\Rightarrow \sqrt{2} AM = (AM + MB)$

$\Rightarrow (\sqrt{2} - 1) AM = MB$

$\Rightarrow \frac{AM}{BM} = \frac{1}{\sqrt{2} - 1}$

$\frac{AM}{BM} = \frac{1}{\sqrt{2} - 1} \times \frac{\sqrt{2} + 1}{\sqrt{2} + 1}$

$\therefore AM : MB = (\sqrt{2} - 1) : 1$

60. (C) $2 \sin \alpha + 15 \cos^2 \alpha = 7$

$\Rightarrow 2 \sin \alpha + 15(1 - \sin^2 \alpha) = 7$

$\Rightarrow 15 \sin^2 \alpha - 2 \sin \alpha - 8 = 0$

$\Rightarrow (5 \sin \alpha - 4)(3 \sin \alpha + 2)$

$\Rightarrow \sin \alpha = \frac{4}{5}$ (ignoring the -ve value)

$\Rightarrow \tan \alpha = \frac{4}{3} \Rightarrow \tan^2 \alpha = \frac{16}{9}$

61. (A) Radius of circle inscribed

$= \frac{a}{2\sqrt{3}} = \frac{24}{2\sqrt{3}} = 4\sqrt{3}$

Area of circle inscribed = $\pi(4\sqrt{3})^2 = 48\pi \text{ cm}^2$

Area of equilateral $\Delta = \frac{\sqrt{3}}{4} a^2$

$= \frac{\sqrt{3}}{4} \times 24^2 = 144\sqrt{3} \text{ cm}^2$

Area of remaining portion = $144\sqrt{3} - 48\pi \text{ cm}^2$

62. (C) Speed of A = $5 \text{ km/h} = 5 \times \frac{5}{18} = \frac{25}{18} \text{ m/s}$

Time taken by A to cover 100 m

$= \frac{\text{Distance}}{\text{Speed}} = \frac{100}{\left(\frac{25}{18}\right)} = 72 \text{ sec}$

It is given that, A gives B a start of 8 m and still beats him by 8 seconds.

\Rightarrow B takes $(72 + 8) = 80$ sec to cover $(100 - 8)$
= 92 m

$$\text{Speed of B} = \frac{\text{Distance}}{\text{Time}} = \frac{92}{80} \text{ m/s}$$

$$= \frac{92}{80} \times \frac{18}{5} = \frac{23 \times 18}{100} = \frac{414}{100} = 4.14 \text{ km/h}$$

63. (B) Let the number of subjects = x
Then, total marks he scored for all subjects = $63x$

If he had obtained 20 more marks for his Geography and 2 more marks for his history, his average would have been 65

\Rightarrow Total marks he would have scored for all subjects = $65x$

Now we can form the equation as $65x - 63x$ = additional marks of the student

$$= 20 + 2 = 22$$

$$\Rightarrow 2x = 22$$

$$\Rightarrow x = \frac{22}{2} = 11$$

\therefore Required number of subjects = 11

64. (C) Let the filling capacity of the pump = $x \text{ m}^3/\text{min}$

Then the emptying capacity of the pump = $(x + 10) \text{ m}^3/\text{min}$

$$\text{Time required for filling the tank} = \frac{2400}{x} \text{ min}$$

Time required for emptying the tank

$$= \frac{2400}{(x + 10)} \text{ min}$$

Pump needs 8 minutes lesser to empty the tank than it needs to fill it

$$\Rightarrow \frac{2400}{x} - \frac{2400}{x + 10} = 8 \Rightarrow \frac{300}{x} - \frac{300}{x + 10} = 1$$

$$\Rightarrow 300(x + 10) - 300x = x(x + 10)$$

$$\Rightarrow 3000 = x^2 + 10x \Rightarrow x^2 + 10x - 3000 = 0$$

$$\Rightarrow (x + 60)(x - 50) = 0 \Rightarrow x = 50 \text{ or } -60$$

Since x cannot be negative, $x = 50$

\therefore The filling capacity of the pump = $50 \text{ m}^3/\text{min}$

65. (C) Relative speed = Speed of A + Speed of B
(\because they walk in opposite directions)

$$= 2 + 3 = 5 \text{ rounds per hour}$$

\Rightarrow They cross each other 5 times in 1 hr

and 2 times in $\frac{1}{2}$ hr

Time duration from 8 am to 9.30 am = 1.5 hour

Hence they cross each other 7 times before 9.30 am

66. (C) Let the CP = 100, Profit = $\frac{320}{100} \times 100 = 320$

$$\text{SP} = \text{CP} + \text{Profit} = 100 + 320 = 420$$

If the cost increases by 25%,

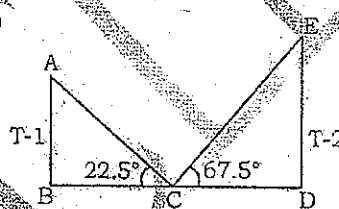
$$\text{New CP} = \frac{125}{100} \times 100 = 125$$

SP is constant, hence New SP = 420

$$\text{Profit} = \text{SP} - \text{CP} = 420 - 125 = 295$$

$$\text{Required Percentage} = \frac{295}{420} \times 100 = \frac{2950}{42} = 70$$

67. (C)



Let ED be the taller and AB be the shorter tower and C be its observation.

In $\triangle ABC$

$$\tan 22.5^\circ = \frac{AB}{BC} \quad \dots(1)$$

In $\triangle CDE$

$$\tan 64.5^\circ = \frac{ED}{CD} \quad \dots(2)$$

$$\frac{\text{Eq 2}}{\text{Eq 1}} = \frac{\tan 67.5^\circ}{\tan 22.5^\circ} = \frac{ED}{AB} \Rightarrow \frac{\cot 22.5^\circ}{\tan 22.5^\circ} = \frac{ED}{AB}$$

$$\Rightarrow \frac{ED}{AB} = \frac{1}{(\tan 22.5^\circ)^2} = \frac{1}{(\sqrt{2}-1)^2} = (\sqrt{2}+1)^2$$

$$= 3 + 2\sqrt{2}$$

\therefore Required ratio = $ED : AB = (3 + 2\sqrt{2}) : 1$

68. (A) Let the original price = 100

Then, the price at which he purchased (CP) = 90% of 100 = 90

$$\text{Profit} = 30\%, \text{ SP} = \frac{(100 + \text{Profit}\%)}{100} \times \text{CP}$$

$$= \frac{(100 + 30) \times 90}{100} = \frac{130}{100} \times 90 = 13 \times 9 = 117$$

$$\text{Required \%} = \frac{(117 - 100)}{100} \times 100 = 17\%$$

69. (D) $x = 8 + 3\sqrt{7}$

$$\frac{1}{x} = 8 - 3\sqrt{7}$$

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

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

$$= 16 - 2 = 14$$

$$\Rightarrow \sqrt{x} - \frac{1}{\sqrt{x}} = \sqrt{14}$$

70. (A) Given $\frac{Q}{P} = \frac{P}{P+Q}$... (i)

Let $Q = KP$
Now we have equation (i) of

$$\frac{KP}{P} = \frac{P}{P+KP} \Rightarrow K = \frac{1}{1+K}$$

$$\Rightarrow K(1+K) = 1$$

... (ii)

Q as a percent of P = $\frac{Q}{P} \times 100 = \frac{KP}{P} \times 100 = 100K\%$

Now solve equation (ii)
 $K(K+1) = 1 \Rightarrow K^2 + K - 1 = 0$

$$\Rightarrow K = \frac{-1 \pm \sqrt{1^2 - 4 \times 1 \times (-1)}}{2 \times 1}$$

$$= \frac{-1 \pm \sqrt{5}}{2} = \frac{-1 \pm 2.24}{2} = \pm 0.62$$

ignore -ve value
Now Q as a percent of P = $100K = 100 \times 0.62 = 62\%$

71. (D) Let P = ₹ 100
Simple Interest = ₹ 80 (∵ 80% increase is due to the simple interest)

Rate of interest = $100 \times \frac{SI}{PT}$

$$= 100 \times \frac{80}{100} \times 8 = 10\% \text{ per annum}$$

Now let's find out the compound interest of ₹ 14,000 after 3 years at 10%

P = ₹ 14000
T = 3 years
R = 10%

Amount after 3 years

$$= P \left(1 + \frac{R}{100}\right)^T = 14000 \left(1 + \frac{10}{100}\right)^3$$

$$= 14000 \left(\frac{11}{10}\right)^3 = 14 \times 1331 = 18634$$

Compound Interest = ₹ 18634 - ₹ 14000
= ₹ 4634

72. (D) Concentration of alcohol in Jar 1 = 40%
Concentration of alcohol in Jar 2 = 19%
Concentration of alcohol in Mixture = 26%

Now, 40 ——— 19
 / \
 26
 / \
 7 14

Ratio = 7 : 14 = 1 : 2
Required ratio of whisky to be replaced
 $= \frac{2}{1+2} = \frac{2}{3}$

73. (D) The percentage of candidates qualified to candidates appeared from city C during different years are :

For 2012 = $\left(\frac{780}{6400} \times 100\right)\% = 12.18\%$

For 2013 = $\left(\frac{1020}{8800} \times 100\right)\% = 11.59\%$

For 2014 = $\left(\frac{890}{7800} \times 100\right)\% = 11.41\%$

For 2015 = $\left(\frac{1010}{8750} \times 100\right)\% = 11.54\%$

For 2016 = $\left(\frac{1250}{9750} \times 100\right)\% = 12.82\%$

74. (B) Required percentage

$$= \left[\frac{(850 + 920 + 890 + 980 + 1350)}{(7400 + 8450 + 7800 + 8700 + 9800)} \times 100\right]\%$$

$$= \left(\frac{4990}{42150} \times 100\right)\% = 11.83\%$$

75. (D) Required percentage

$$= \left[\frac{(840 + 1050 + 920 + 980 + 1020)}{(7500 + 9200 + 8450 + 9200 + 8800)} \times 100\right]\%$$

$$= \left(\frac{4810}{43150} \times 100\right)\% = 11.14\%$$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Alibi	an excuse	बहाना
Ameliorate	to make something better and less painful	सुधारना
Behead	cut off the head	सिर काटना
Fatuous	silly and stupid	सूख
Fawning	to show affection in flattering manner	चापलूसी करना
Fiasco	a thing that is a complete failure	असफलता
Honeycomb	cells of wax made by bees to store honey	मधुकोष
Indecisiveness	not clearly marked out	दुविधा
Interrogatory	a formal question or inquiry	जांच-पड़ताल, पूछताछ
Ludicrous	ridiculous, very foolish	मजाक उड़ाने लायक बेवकूफी
Procrastinate	delay, put off doing something	देर करना
Recapitulate	summarize	संक्षेप में दोहराना
Recite	to describe, to read out loud from memory	वर्णन करना, सुनना (याद करके)
Stagnate	pause, hold back	रुकना
Vain	producing no result, useless	व्यर्थ
Virtuous	having or showing high moral standards	धर्मात्मा

SSC Answer Key on 19 Jan - 2018

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

PINNACLE