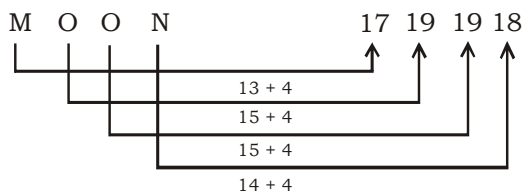
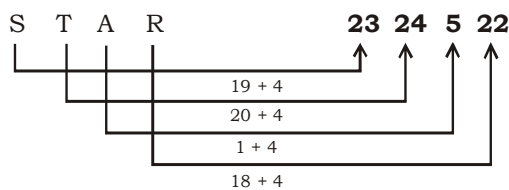


SSC MOCK TEST - 323 (SOLUTION)

1. (A) As, $5^5 = 3125$
Similarly, $7^5 = 16807$
2. (C) First is related to second.
3. (A) Except 1261, others are even numbers.
4. (C) Except Slavery, others are same.
5. (C) As,

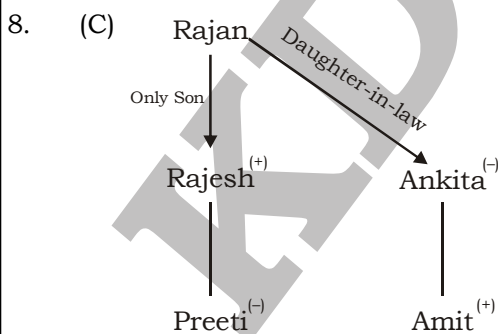


Similarly,



6. (D) 4 8 14 26 48 84 **138**
 $+4$ $+6$ $+12$ $+22$ $+36$ $+54$
 $+2$ $+6$ $+10$ $+14$ $+18$
 $+4$ $+4$ $+4$ $+4$

7. (C) B D H N **V**
 $+2$ $+4$ $+6$ $+8$

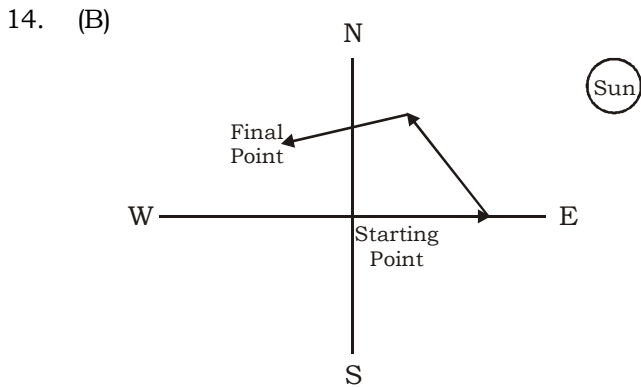


Hence, Preeti is the sister of Amit.

9. (B) As, $(1 + 2 + 6) \times (5 + 4 + 1) = 90$
Similarly, $(2 + 3 + 4) \times (7 + 5 + 4) = 144$
10. (D) ldkmr/ldkmr/ldkmr
11. (A)

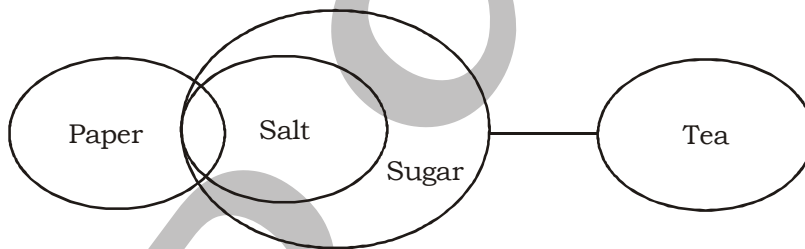
12. (D) **In the first column,**
 $18 + 125 = 143 \Rightarrow 1 \times 4 \times 3 = 12$
In the second column,
 $19 + 134 = 153 \Rightarrow 1 \times 5 \times 3 = 15$
In the third column,
 $24 + 216 = 240 \Rightarrow 2 \times 4 \times 0 = 0$

13. (A) $17 + 234 - 18 \div 6 \times 4 + 5 = 232$
 After changing 4 and 5,
 $17 + 234 - 18 \div 6 \times 5 + 4 = 232$
 $17 + 234 - 3 \times 5 + 4 = 232$
 $251 - 19 = 232$
 $232 = 232$



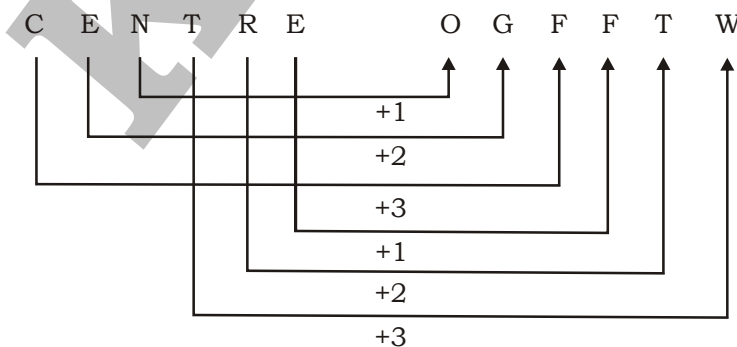
Hence, he is facing South-West direction now.

15. (A) 4. Egg \rightarrow 2. Larva \rightarrow 1. Pupa \rightarrow 3. Moth
 16. (B)
 17. (D)

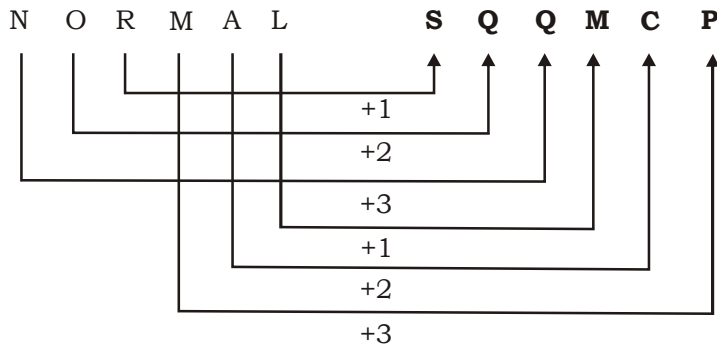


I. False II. False III. True
 Hence, only conclusion III follows.

18. (D) 19. (D)
 20. (C) As,



Similarly,



21. (D) As, $162 - 126 = 36 \Rightarrow 3 + 6 = 9$
Similarly, $125 - 78 = 47 \Rightarrow 4 + 7 = 11$
22. (A)
23. (B) As,
 $(25 - 3)^2 + 1 = 485$
and, $(21 - 3)^2 + 1 = 325$
Similarly,
 $(23 - 3)^2 + 1 = 401$
24. (B) 25. (C)
26. (C) Buddha travelled through the towns and villages in the kingdoms of Kosala and Magadha teaching his philosophy.
28. (B) Finance Bill means a Bill ordinarily introduced every year to give effect to the financial proposals of the Government of India for the next following financial year and includes a Bill to give effect to supplementary financial proposals for any period.
30. (C) The Government enacted the Panchayat Extension to Scheduled Areas (PESA) Act in 1996. Which one of the following is not identified as its objective? PESA doesn't deal with creation of autonomous regions in tribal areas
31. (C) The atmosphere is mostly heated by the Radiation process. The air/fluid molecules heated up the atmosphere again and again.
32. (A) The Organisation for Economic Co-operation and Development, abbreviated as OECD and based in Paris (FR), is an international organisation of 36 countries committed to democracy and the market economy.
33. (C) Babur established the Timurid dynasty in India. Hence statement 3 is correct. Babur was a descendant of Timurid dynasty or clan of Turco-Mongol lineage, descended from the warlord Timur and led to the establishment of Timurid dynasty in the region.
34. (D) Lithium has the highest specific heat capacity of any solid element. Because of its specific heat capacity, the highest of all solids, lithium metal is often used in coolants for heat transfer applications.
35. (D) The World Health Organisation (WHO) has granted emergency approval to the India-manufactured coronavirus vaccine Covovax.
36. (D) Earth orbits the sun at an average of 92,955,807 miles (149,597,870 kilometers). The distance from Earth to the sun is also called an astronomical unit, or AU, which is used to measure distances throughout the solar system.
37. (A) CRR refers to the percentage of deposits banks have to keep as reserve (in cash). This reserve sum is not available for banks for lending and thus if the CRR increases, banks will have less money to lend.
39. (B) Indigo is a dye different than any other. ... Rather it is dyed through a living fermentation process. The process "reduces" the Indigo, changing it from blue to yellow. In this state, it dissolves in an alkaline solution.

40. (D) The alluvial soils vary in nature from sandy loam to clay. They are generally rich in potash but poor in phosphorous.
42. (C) Religious and Linguistic minorities.
43. (C) Dhanvantri is an Avatar of Vishnu from the Hindu tradition. He appears in the Vedas and Puranas as the physician of the gods (devas), and the god of Ayurvedic medicine.
45. (A) Troposphere, The troposphere is the lowest layer of the Earth's atmosphere. The air is very well mixed and the temperature decreases with altitude.
48. (A) World Health Organisation (WHO) was formed in the year 1948. Its main purpose is to promote health care, provide technical support and monitor health trends. Its headquarters is in Geneva, Switzerland.
49. (A) Random-Access memory (RAM) and cache memory are common examples of primary storage devices.
50. (B) The Competition Commission of India (CCI) suspended its over two-year-old approval for Amazon's deal to acquire stake in retailer Future Coupons Private Limited.
51. (A) Distance moved by A in 1 hour = 20 km
Then, distance between A and B at 12 pm = 110 - 20 = 90 km
Relative speed of A and B after 12 pm = 20 - 15 (Since B is moving away from A) = 5 km/hr

$$\text{Now, time taken by A to meet B} = \frac{90}{5} = 18 \text{ hr}$$

Therefore, they will meet the next day at 6 am

52. (C) A's one day's work = $\frac{1}{12}$

$$\text{A's three day's work} = \frac{3}{12} = \frac{1}{4}$$

$$\text{Remaining work} = 1 - \frac{1}{4} = \frac{3}{4}$$

(A + B) complete the $\frac{3}{4}$ th work in 3 days.

$$\text{(A + B) complete the work in } 3 \times \frac{4}{3} = 4 \text{ days}$$

$$\therefore \text{B's one day's work} = \frac{1}{4} - \frac{1}{12} = \frac{3-1}{12} = \frac{2}{12} = \frac{1}{6}$$

Hence, B can complete the work in 6 days.

53. (B) Let 'X' be the number of pen that a shopman bought.

$$\text{CP of 1 pen} = \frac{10}{7}$$

Profit = 40%

$$\text{Hence, SP of one pen} = \frac{10}{7} + \frac{\left\{40 \times \left(\frac{10}{7}\right)\right\}}{100}$$

$$= \frac{10}{7} + \frac{4}{7} = \frac{14}{7} = ₹ 2$$

$$\text{Hence, number of pen that a customer gets for ₹ 10} = \frac{10}{2} = 5$$

54. (A) $2\sin^2\theta + 5\cos\theta - 4 = 0$

$$(2 - 2\cos^2\theta) + 5\cos\theta - 4 = 0$$

$$2\cos^2\theta - 5\cos\theta + 2 = 0$$

$$2\cos^2\theta - 4\cos\theta - \cos\theta + 2 = 0$$

$$(2\cos\theta - 1)(\cos\theta - 2) = 0$$

Hence, $\cos\theta = \frac{1}{2}$

$$\theta = 60^\circ$$

Hence, $\cos\theta + \operatorname{cosec}\theta = \cot 60^\circ + \operatorname{cosec} 60^\circ$

$$= \frac{1}{\sqrt{3}} + \frac{2}{\sqrt{3}} = \frac{3}{\sqrt{3}} = \sqrt{3}$$

55. (D) The simple interest on a sum of money for 3 years at an interest rate of 6% p.a. is ₹ 6750.

$$SI = \frac{P \times R \times T}{100}$$

$$6750 = \frac{P \times 6 \times 3}{100}$$

$$P = \frac{675000}{18} = 37500$$

Now, we will find compound interest on ₹ 37500 for 3 years at an interest rate of 6% p.a.

$$CI = P \left(1 + \frac{R}{100}\right)^T - P = 37500 \left(1 + \frac{6}{100}\right)^3 - 37500$$

$$= \left(37500 \times \frac{106}{100} \times \frac{106}{100} \times \frac{106}{100}\right) - 37500$$

$$= 44663.1 - 37500 = ₹ 7163.1$$

56. (D) Given that length, breadth and height of a cuboidal box are in the ratio 7 : 5 : 3.

Let length of a cuboidal box = 7x

Breadth of a cuboidal box = 5x

Height of a cuboidal box = 3x

Total surface area of cuboidal box = 2(lb + bh + hl)

$$2(lb + bh + hl) = 27832$$

$$2(35x^2 + 15x^2 + 21x^2) = 27832$$

$$14x^2 = 27832$$

$$x^2 = 196$$

$$x = 14$$

So, volume of cuboidal box = l × b × h

$$l \times b \times h = (7 \times 14) \times (5 \times 14) \times (3 \times 14) = 288120 \text{ cm}^3$$

57. (A) Required number = LCM (4, 6, 8, 12, 16) + 2 = 48 + 2 = 50

58. (A) If $a^2 + b^2 + 1 = 2a$

$$a^2 + b^2 + 1 - 2a = 0$$

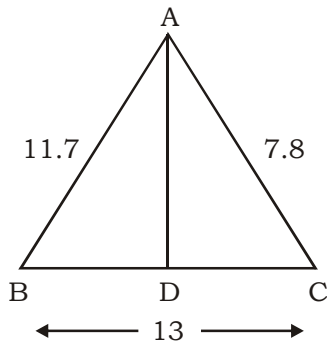
$$(a^2 - 2a + 1) + b^2 = 0$$

$$(a - 1)^2 + b^2 = 0$$

a = 1 and b = 0, because for any other value, it will not be equal to 0.

So, $a^4 + b^6 = 1^4 + 0^6 = 1 + 0 = 1$

59. (D)



From angle bisector theorem,

$$\frac{AB}{AC} = \frac{BD}{DC}$$

$$\frac{BD}{DC} = \frac{11.7}{7.8}$$

$$\text{Let } BD = 11.7x$$

$$DC = 7.8x$$

$$BD + DC = BC$$

$$19.5x = 13$$

$$\text{Then } x = \frac{13}{19.5}$$

$$\text{Required } DC = 7.8x = 7.8 \times \frac{13}{19.5} = 5.2 \text{ cm}$$

60. (C) Consider $(2^{24} - 1)$ is divided by 7.

$$2^{24} - 1 = (2^3)^8 - 1^8 = 8^8 - 1^8$$

We know that $a^n - b^n$ is exactly divisible by $(a - b)$.

Hence, $8^8 - 1^8$ will be exactly divisible by $(8 - 1)$.

$8^8 - 1^8$ will be exactly divisible by (7).

$(2^{24} - 1)$ will be exactly divisible by 7.

Therefore, Required remainder = 0

61. (D) Total present age of husband, wife and child = $27 \times 3 + 3 \times 3 = 81 + 9 = 90$ years

$$\text{Present age of wife and child} = 20 \times 2 + 5 \times 2 = 40 + 10 = 50 \text{ years}$$

$$\therefore \text{Present age of the husband will be} = 90 - 50 = 40 \text{ years}$$

62. (A) $31\frac{2}{5} \div \left[168 \div \frac{3}{7} \text{ of } 28 \div \left(33 \div \frac{5}{2} \right) + \left(7\frac{3}{5} - 3\frac{2}{5} \right) \right]$

$$\frac{157}{5} \div \left[168 \div \frac{3}{7} \text{ of } 28 \div \left(33 \div \frac{5}{2} \right) + \left(\frac{38}{5} - \frac{17}{5} \right) \right]$$

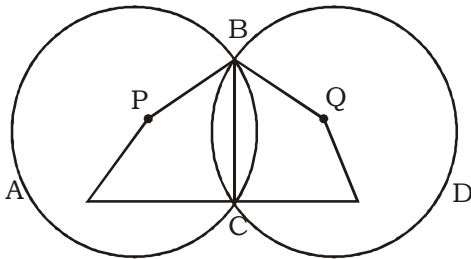
$$\frac{157}{5} \div \left[168 \div 12 + \left(\frac{66}{5} \right) + \left(\frac{38}{5} - \frac{17}{5} \right) \right]$$

$$\frac{157}{5} \div \left[14 + \left(\frac{66}{5} \right) + \left(\frac{21}{5} \right) \right]$$

$$\frac{157}{5} \div \left[14 + \frac{87}{5} \right]$$

$$\frac{157}{5} \div \left[\frac{157}{5} \right] = 1$$

63. (B)



$$\angle APB = 130^\circ$$

$$\angle BCA = \frac{130^\circ}{2} = 65^\circ$$

$$\angle BCD = 180^\circ - 65^\circ = 115^\circ \text{ (Straight angle)}$$

$$\text{External } \angle BQD = 2 \times 115^\circ = 230^\circ$$

$$\therefore \angle BQD = 360^\circ - 230^\circ = 130^\circ$$

64. (A) $\frac{2 \sin \theta - \cos \theta}{\cos \theta + \sin \theta} = 1$

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

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

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

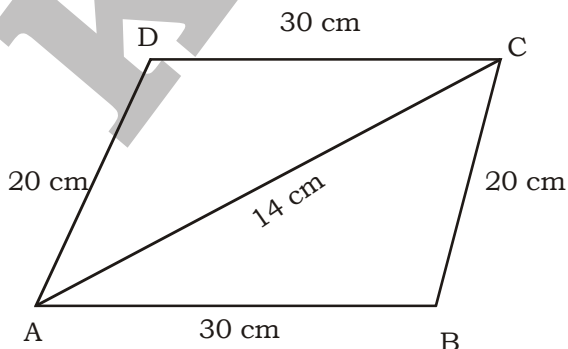
$$\frac{2 - \cot \theta}{\cot \theta + 1} = 1$$

$$2 - \cot \theta = \cot \theta + 1$$

$$2 \cot \theta = 1$$

$$\cot \theta = \frac{1}{2}$$

65. (D)



In parallelogram, diagonal bisects the area in two equal parts.

Now, Area of $\triangle ADC$ = Area of $\triangle ABC$

In $\triangle ADC$,

$$\text{Semi-perimeter } s = \frac{20 + 30 + 44}{2} = \frac{94}{2} = 47 \text{ cm}$$

$$\text{Area of } \triangle ADC = \sqrt{s(s-a)(s-b)(s-c)}$$

$$= \sqrt{47(47-20)(47-30)(47-44)}$$

$$= \sqrt{47 \times 27 \times 17 \times 3}$$

$$= \sqrt{47 \times 3 \times 3 \times 3 \times 17 \times 3} = 9\sqrt{799} \text{ cm}^2$$

$$\therefore \text{Area of parallelogram ABCD} = 2 \times 9\sqrt{799} \text{ cm}^2 = 18\sqrt{799} \text{ cm}^2$$

66. (B) On dividing the given number by 340, then Let K be the quotient and 47 as remainder
number = $342k \times 47$

$$= 19 \times 18k + 19 \times 2 + 9$$

$$= 19(18k + 2) + 9$$

The given number when divide by 19, gives $(18k + 2)$ as quotient and 9 as remainder.

67. (C) Total bananas = 100

$$\text{Remaining bananas} = 100 - 21 = 79$$

$$\text{Selling price of 79 bananas} = 79 \times 4.50 = ₹ 355.50$$

$$\text{Cost price of 100 bananas} = \frac{355.50}{120} \times 100 = ₹ 296.25$$

68. (D) Let the number of sides be n.

$$\text{Each interior angle of a regular polygon} = 180^\circ \left(\frac{n-2}{n} \right) - \frac{360^\circ}{n} = 132^\circ$$

$$180n - 360 - 360^\circ = 132n$$

$$180n - 132n = 720$$

$$48n = 720$$

$$n = \frac{720}{48} = 15$$

69. (C) CP of machine = $5400 + 800 = ₹ 6200$

$$\text{MP of machine} = 6200 \times \frac{124}{100} = ₹ 7688$$

$$\text{Discount} = 7688 - 7380.48 = ₹ 307.50$$

$$\therefore \text{Discount}\% = \left(\frac{307.52 \times 100}{7688} \right)\% = 4\%$$

70. (B) Total of 50 numbers = $50 \times 38 = 1900$

$$\therefore \text{Correct average} = \frac{1900 - 84 + 48}{50} = \frac{1864}{50} = 37.28$$

71. (A) Total number of students in school A in the given years
 $= 640 + 800 + 500 + 700 + 900 + 750 = 4290$
 Total number of students in school B in the given years
 $= 550 + 820 + 600 + 750 + 500 + 480 = 3700$
 \therefore Required ratio $= 4290 : 3700 = 429 : 370$
72. (B) Total number of students in school A and school B together in the year 2009
 $= 800 + 820 = 1620$
 Total number of students in school B in the year 2008 and 2011 together
 $= 550 + 750 = 1300$
 \therefore Required % $= \left(\frac{1620}{1300} \times 100 \right) \% = 124 \frac{8}{13} \%$
73. (D) Required average $= \frac{800 + 820 + 900 + 500 + 750 + 480}{6}$
 $= \frac{4250}{6} = 708.33 \approx 708$
74. (C) Total number of students in school A and school B together in the year 2014
 $= (750 + 480) \times \frac{120}{100}$
 $= 1230 \times \frac{120}{100} = 1476$
75. (B) Required percentage $= \left(\frac{750 - 500}{750} \times 100 \right) \%$
 $= \left(\frac{250}{750} \times 100 \right) \% = 33 \frac{1}{3} \%$

MEANINGS IN ALPHABETICAL ORDER

Appalling	causing shock or dismay; horrific	भय उत्पन्न करने वाला
Avid	having or showing a keen interest in or enthusiasm for something	उत्सुक
Carnivore	an animal that feeds on flesh	मांसभक्षी
Courageous	not deterred by danger or pain; brave	साहसिक
Delicious	highly pleasant to the taste	स्वादिष्ट
Delinquent	(typically of a young person or that person's behavior) showing or characterized by a tendency to commit crime, particularly minor crime	अपराधी
Despairing	showing the loss of all hope	निराश
Dictator	a ruler with total power over a country, typically one who has obtained control by force	तानाशाह
Disburse	pay out (money from a fund)	चुकाना
Disperse	distribute or spread over a wide area	फैलाना
Erratic	not even or regular in pattern or movement; unpredictable	अनियमित
Formidable	inspiring fear or respect through being impressively large, powerful, intense, or capable	दुर्जेय
Herbivore	an animal that feeds on plants	शाकाहारी
Identical	similar in every detail; exactly alike	समान
Immense	extremely large or great, especially in scale or degree	अत्यधिक
Indistinguishable	not able to be identified as different or distinct	अविवेच्य
Insectivore	an insectivorous animal or plant	कीटभक्षी
Irradiate	expose to radiation	चमकाना
Irreverent	showing a lack of respect for people or things that are generally taken seriously	बेअदब
Offending	causing problems or displeasure	हमलावर
Omnivore	an animal or person that eats food of both plant and animal origin	सर्वाहारी
Prodigious	remarkably or impressively great in extent, size, or degree	विलक्षण
Protector	a person or thing that protects someone or something	रक्षा करने वाला
Scary	frightening; causing fear	भयानक
Traitor	a person who betrays a friend, country, principle, etc	गद्दार
Trivial	of little value or importance	तुच्छ
Vicious	deliberately cruel or violent	शातिर

SSC MOCK TEST - 323 (ANSWER KEY)

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

76. (B) 'has' replace with 'had'.

77. (D) No error

90. (A) The correct spelling of 'Irradicate' is 'Irradiate'.

91. (D) The correct spelling of 'Deliceous' is 'Delicious'.