

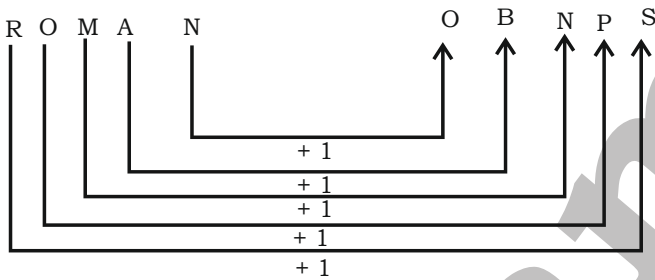
SSC MOCK TEST - 320 (SOLUTION)

1. (B) As

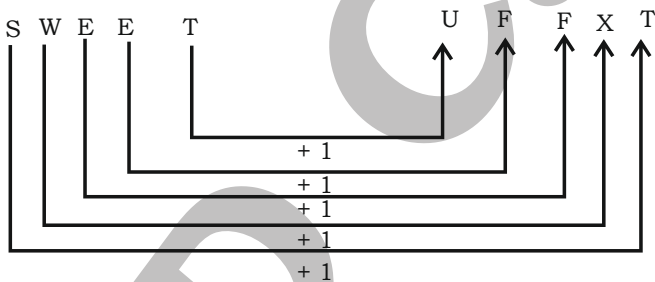
$$44 \Rightarrow (4)^2 (4)^3 \Rightarrow 1664$$

$$\text{Similarly, } 56 \Rightarrow (5)^2 (6)^3 \Rightarrow 125216$$

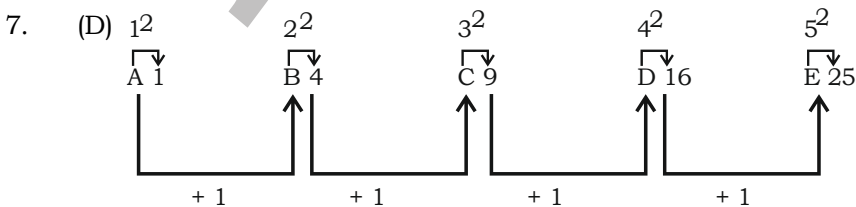
2. (A) First is the currency of second.
3. (B) Except 573, the sum of digits of other number is prime.
4. (C) Except Monitor, others are input device.
5. (B) As,



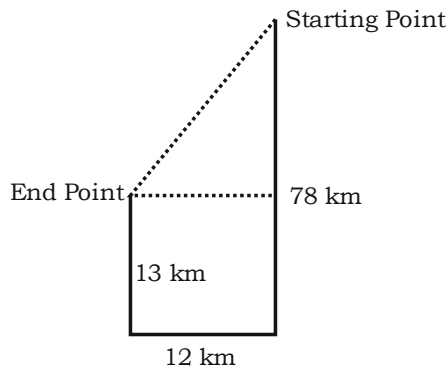
Similarly,



6. (D) $95 + 11^1 = 106$
 $106 + 11^2 = 227$
 $227 + 11^3 = 1558$
 $1558 + 11^4 = 16199$



8. (D)



$$\text{Required distance} = \sqrt{12^2 + 5^2} = \sqrt{169} = 13 \text{ km}$$

9. (C) As,

$$252 + 125 = 377$$

$$377 + 250 = 627$$

Similarly,

$$425 + 125 = 550$$

$$550 + 250 = 800$$

10. (D) dkloj/dkloj/dkloj

11. (C)

12. (A) **In the first row,**

$$19 + 85 = 102 \Rightarrow 201$$

In the second row,

$$19 + 114 = 133 \Rightarrow 331$$

In the third row,

$$21 + 147 = 168 \Rightarrow 861$$

13. (C) $A \times B \div C - D + E = 14$

Put the value,

$$4 \times 3 \div 2 - 5 + 13 = 14$$

$$6 + 13 - 5 = 14$$

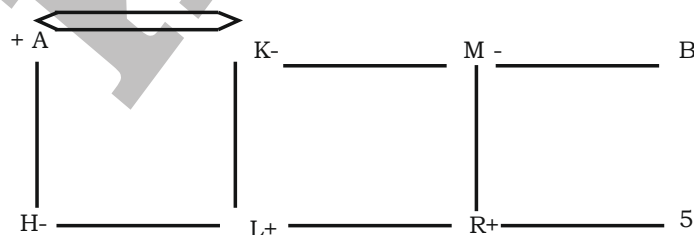
$$19 - 5 = 14$$

$$14 = 14$$

14. (D) Age of teacher = $16 \times 15 - 14 \times 15 = 240 - 210 = 30$ years

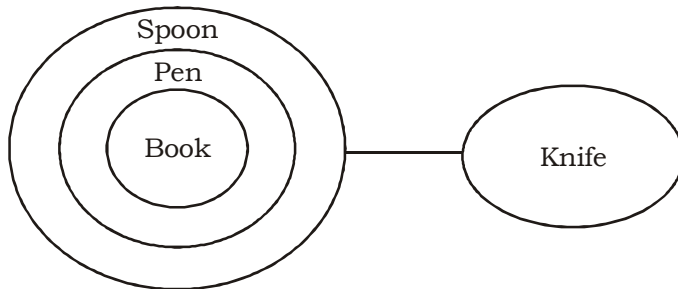
15. (D) 4. Docile \rightarrow 1. Docket \rightarrow 3. Dockyard \rightarrow 2. Domicile \rightarrow 5. Dormitory

16. (A)



Hence, A is in the brother- in law of B.

17. (D)



I. False

II. True

III. True

Hence, only conclusion II and III follows.

18. (A)

19. (B)

20. (B) As,

$$13 + 58 = 71$$

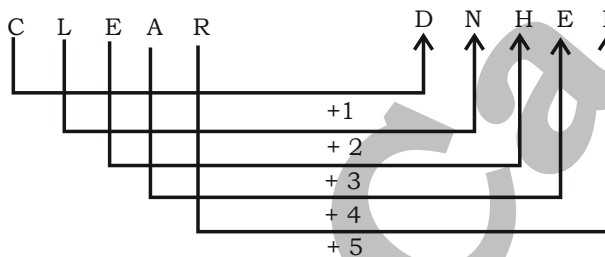
$$71 + 13 = 84$$

Similarly,

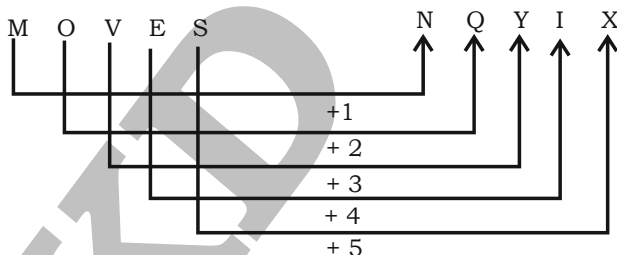
$$15 + 58 = 73$$

$$73 + 15 = 88$$

21. (D) As,



Similarly,



22. (C)

23. (B)

24. (D)

25. (C)

27. (C) Asteroids are small rocky planetoids, while comets are formed of frozen gases held together by rocky and metallic material. 2. Asteroids are found mostly between the orbits of Jupiter and Mars, while comets are found mostly between Venus and Mercury.

28. (B) The indigenous peoples of North Africa are Amazigh or Imazighn, often known as "Berbers". They share a common heritage and linguistic origin with many dialects such as Tachelhit- tamazight- tarifit- taqbaylit- tamacheqt. Among the different Amazigh ethnic groups are the Tuareg nomads of the southern region.

29. (C) The system later came to be known as Panchayati Raj, which was inaugurated by the Prime Minister Pandit Jawaharlal Nehru on 2 October 1959 at Nagour in Rajasthan. The first elections under the Rajasthan Panchayat Samitis and Zilla Parishads Act, 1959 were held in September-October 1959.
30. (C) Air can be separated into its components of air through fractional distillation. In the fractional distillation process, the liquid air is distributed through the fractional distillation column. Here, the liquid air is permissible to warm-up.
31. (C) The Jallianwala Bagh slaughter, otherwise called the Amritsar slaughter, occurred on 13 April 1919, when Acting Brigadier-General Reginald Dyer requested soldiers of the British Indian Army to discharge their rifles into a horde of unarmed Indian civilians in Jallianwala Bagh, Amritsar, Punjab, executing at any rate ...
34. (A) 1581-41 bce. The rise of the Hyksos kings in Egypt was made possible by an influx of immigrants from Palestine into Egypt beginning about the 18th century bce. The immigrants brought with them new technologies, including the horse and chariot, the compound bow, and improved metal weapons.
36. (B) The most important characteristic of the islands (Indian) located in the Arabian Sea is that they are all of coral origin.
38. (C) The IAEA has its headquarters in Vienna, Austria. The IAEA has two "Regional Safeguards Offices" which are located in Toronto, Canada, and in Tokyo, Japan. The IAEA also has two liaison offices which are located in New York City, United States, and in Geneva, Switzerland.
40. (A) Robert Burns is considered the pioneer of the Romantic Movement. Although his death in 1796 precedes what many consider the start of Romanticism, his lyricism and sincerity mark him as an early Romantic writer. His most notable works are "Auld Lang Syne" (1788) and "Tam o' Shanter" (1791).
41. (D) FIFA was founded in 1904 to oversee international competition among the national associations of Belgium, Denmark, France, Germany, the Netherlands, Spain, Sweden and Switzerland.
42. (B) The Moortidevi Award is an annual literary award in India presented by the Bharatiya Jnanpith organisation for a work which emphasises Indian philosophy and culture.
44. (D) The upthrust or buoyancy is zero in vacuum. Therefore weight is most in vacuum.
46. (D) Kanha National Park was created on 1 June 1955 and was designated a tiger reserve in 1973. Today, it encompasses an area of 940 km² (360 sq mi) in the two districts Mandla and Balaghat.
48. (A) Pluto is currently the most distant planet from the Sun, though as you probably know Pluto was "demoted" to dwarf planet status in August 2006.
49. (D) Analytical Engine, generally considered the first computer, designed and partly built by the English inventor Charles Babbage in the 19th century (he worked on it until his death in 1871).
51. (B) Let the numbers are 50 and 60 respectively.

$$\begin{array}{cc}
 A & : & B \\
 50 & & 60 \\
 \downarrow +20\% & & \downarrow -20\% \\
 60 & : & 48
 \end{array}$$

\therefore Required ratio = 60 : 48 = 5 : 4

52. (B) Let SP = 100

$$\begin{array}{cc}
 \text{Loss} & \text{Profit} \\
 80 & 115 \\
 \curvearrowright +35 &
 \end{array}$$

35 \longrightarrow 105

1 \longrightarrow 3

100 \longrightarrow 300

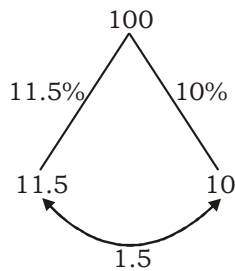
53. (C) Listed price = ₹ 1400

$$\text{After 1st discount} = \frac{90}{100} \times 1400 = ₹ 1260$$

$$\text{SP} = ₹ 1200$$

$$\text{Additional discount \%} = \frac{1260 - 1200}{1260} \times 100 = 4 \frac{16}{21} \%$$

54. (D) Let the sum = 100 units



According to question,

$$1.5 \text{ units} = 75$$

$$1 \text{ unit} = \frac{75}{1.5}$$

$$\therefore 100 \text{ units} = \frac{75}{1.5} \times 100 = ₹ 5000$$

55. (B) According to the question,

$$\text{Principal} = ₹ S$$

$$\text{Rate} = 2r\% \text{ p.a}$$

$$\text{Time} = 3 \text{ years}$$

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

$$A = S \left(1 + \frac{2r}{100} \right)^3$$

$$A = S \left(1 + \frac{r}{50} \right)^3$$

56. (A) $A + B + C = 196$

$$A : B : C$$

$$\times 2 : 3 : 3$$

$$\hline \downarrow 5 : 5 : 8$$

$$10 : 15 : 24$$

$$10x + 15x + 24x = 49x$$

$$49x = 196$$

$$x = 4$$

$$\therefore \text{Second number (B)} = 4 \times 15 = 60$$

57. (A) Let their monthly income be ₹ $8x$ and ₹ $5x$
According to the question

$$\frac{8x - 12000}{5x - 10000} = \frac{5}{3}$$

$$24x - 36000 = 25x - 50000$$

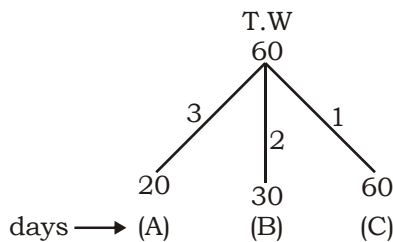
$$x = 14000$$

$$\text{Difference in monthly income} = 8x - 5x = 3x$$

$$x = 14000$$

$$3x = 14000 \times 3 = ₹ 42,000$$

58. (C)



In 3 days cycle total work done is = $3 + 3 + 6 = 12$ units

$$\text{Work will be completed in} = \frac{60}{12} = 5 \text{ cycles}$$

1 cycle \rightarrow 3 days

5 cycle $\rightarrow 3 \times 5 = 15$ days

59. (D) 1 sec \rightarrow 1 drop

Number of second in 300 days

$(24 \text{ hrs} \times 60 \text{ min} \times 60 \text{ sec}) \times 300 \text{ days}$

$$\text{Number of litres wasted} = \frac{300 \times 24 \times 60 \times 60}{6 \times 1000} \text{ litres} = 4320 \text{ litres}$$

60. (B) Speed = $78 \text{ km/hr} = \frac{78}{60} \times 1000 \text{ m/min} = 1300 \text{ m/min}$

Distance travelled in 1 min = 1300 m

$$1300 = l + 800$$

$$l = 500 \text{ m}$$

length of tunnel is 500 m

61. (C) Speed of boat in still water, $x = 5 \text{ km/hr}$

Speed of stream,

$$y = 3 \text{ km/hr}$$

According to question,

$$\frac{\text{Distance}}{8} + \frac{\text{Distance}}{2} = 3 \text{ hrs}$$

$$\frac{D}{8} + \frac{D}{2} = 3$$

$$\frac{5D}{8} = 3$$

$$5D = 24$$

$$D = \frac{24}{5} = 4.8 \text{ km}$$

62. (D) $x = \frac{1 + \sin \theta}{\cos \theta}$

$$\frac{1}{x} = \frac{\cos \theta}{1 + \sin \theta}$$

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

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

63. (D) $\sin^6 A + \cos^6 A + 3\sin^2 A \cos^2 A$

$$= (\sin^2 A)^3 + (\cos^2 A)^3 + 3\sin^2 A \cos^2 A (\sin^2 A + \cos^2 A)$$

$$[\because \sin^2 A + \cos^2 A = 1]$$

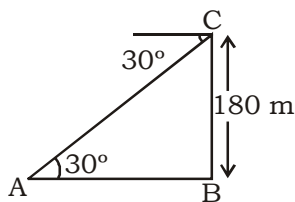
$$= [\sin^2 A + \cos^2 A]^3 = 1$$

64. (B) $\tan \theta + \frac{1}{\tan \theta} = 2$

So, $\tan \theta = 1$

$$\tan^2 \theta + \frac{1}{\tan^2 \theta} = (1)^2 + \frac{1}{(1)^2} = 2$$

65. (B)



$$\frac{\text{Distance of cat from foot of tower}}{\text{Height of tower}} = \cot 30^\circ$$

$$\text{Distance of cat from foot of tower} = 180 \times \sqrt{3} = 180\sqrt{3} \text{ m}$$

66. (C) Length of tree having 80 m shadow = $\frac{24}{18} \times 60 = 80 \text{ m}$

67. (C) Required ratio = $27.5 : 21.5 = 55 : 43$

68. (D) Required angle = $\frac{13.33}{100} \times 360^\circ = \frac{40}{3 \times 100} \times 360^\circ = 48^\circ$

69. (C) Income tax earned by govt. = $\frac{20.17}{100} \times 1200 = 242 \text{ crore (approx)}$

70. (A)

71. (C) Required percentage = $(27.5 + 13.33 + 20.17) - (21.5 + 17.5)$
 $= (61 - 39)\% = 22\%$

72. (B) $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$

$$= \sqrt{248 + \sqrt{52 + 12}} = \sqrt{248 + \sqrt{64}}$$

$$= \sqrt{248 + 8} = \sqrt{256} = 16$$

73. (D) Required number = Largest 5-digit multiple of 3,5,8 & 12 + 2
= Largest 5-digit multiple of 120 + 2 = 99960 + 2
= 99962

74. (A) $(4 + 1) \times 1 = 6$
 $(6 + 1) \times 2 = 15$
 $(15 + 1) \times 3 + 1 = 49$
 $(49 + 1) \times 4 + 1 = 201$
 $(201 + 1) \times 5 + 1 = 1011$
 $(1011 + 1) \times 6 + 1 = 6073$

75. (D) HCF of $(a^2 + 7a + 12)$

↓

$$(a + 3)(a + 4)$$

and $(a^2 + 8a + 15)$

↓

$$(a + 3)(a + 5)$$

HCF = $(a + 3)$

KD

Campus

MEANINGS IN ALPHABETICAL ORDER

| | | |
|---------------|---|----------|
| Admiration | respect and warm approval | प्रशंसा |
| Blithe | showing a casual and cheerful indifference considered to be callous or improper | जिंदादिल |
| Curious | eager to know or learn something | जिज्ञासु |
| Hilarous | extremely amusing | आनंददायक |
| Insignificant | too small or unimportant to be worth consideration | तुच्छ |
| Misery | a state or feeling of great distress or discomfort of mind or body | कष्ट |
| Pathetic | arousing pity, especially through vulnerability or sadness | दयनीय |
| Penitence | the action of feeling or showing sorrow and regret for having done wrong; repentance | तोबा |
| Vicious | deliberately cruel or violent | बुरा |
| Virtuous | having or showing high moral standards | धार्मिक |

SSC MOCK TEST - 320 (ANSWER KEY)

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