

# CHAPTER 1

## Analogy

### Meaning of Analogy

Analogy means 'Similar items'. There is three types of Analogy

- (a) Number Analogy
- (b) Letter Analogy
- (c) Word Analogy

In questions based on analogy, a pair of numbers/letters/words is given that have certain relationship between them. This pair is followed by a third numbers/letters/words. The candidate is required to identify the relationship between the pair of numbers/letters/words given and find out the FOURTH numbers/letters/wore such that the relationship between the third and the fourth numbers/letters/words is similar to the relationship that exists between the first and the second numbers/letters/words.

### Number Analogy

Typical relationships between the numbers in a given pair can be any of the following :

- One number is a multiple of the other.
- One number is the square or square root of the other.
- One number is the cube or cube root of the other.
- The two numbers can be consecutive, even, odd or prime numbers.

**Example 1:**  $3 : 81 :: 6 : ?$

- |          |          |
|----------|----------|
| (a) 1296 | (b) 1269 |
| (c) 1692 | (d) 1926 |

**Solution.** (a)  $n : n^4$  relation here  $(3)$  and  $(3)^4 = (81)$

Similarly,  $(6)$  and  $(6)^4 = 1296$

**Example 2:** Find the missing term  $10 : 100 :: ? : 121$

- |        |        |
|--------|--------|
| (a) 10 | (b) 11 |
| (c) 12 | (d) 13 |

**Solution.** (b) Square of first term is the second term.

$10^2 = 100$ , so  $11^2 = 121$

Analogy

Letter Analogy

The questions based on letter analogy are similar to number analogy. Here, the questions are based on the relationship between two groups of letters on each side of the sign ::. Normally, three pairs of letters are given followed by a question mark where the fourth pair of letters is supposed to come.

**Example 3 :** Find the missing term : YWZX : USVT :: MKNL : ?

- (a) IGGH (b) IGJH  
(c) IGJJ (d) IGHH

**Solution.** (b) Alphabets are used in reverse order. In the first term, the order of alphabet is 2, 4, 1 and 3 and in the second term, the order is 6, 8, 5 and 7. So, the missing term is IGJH.

**Example 4 :** ? : I K M O :: Q S U W : Y A C E

- (a) ACEG (b) ADEG  
(c) ACDG (d) ADDG

**Solution.** (a) In each group, one letter is skipped between every two consecutive letters. So, the missing term will be ACEG.

Word Analogy

In word analogy questions there is a certain relationship between the two given words on one side of ' : ' and one word is given on the other side. Students are asked to find the correct alternative that has same relationship with that word.

**Example 5 :** Sailor : Ship :: Lawyer : ?

- (a) Legal (b) Law  
(c) Court (d) Ruling

**Solution.** (c) 'Sailor' works at 'Ship', similarly 'Lawyer' works at 'Court'.

**Example 6:** Love : Hate :: Create : ?

- (a) Make (b) Renovate  
(c) Destroy (d) Building

**Solution.**(c) 'Hate' is just opposite of 'Love'. Similarly, 'Destroy' is just opposite of 'Create'.

EXERCISE

**Directions:** In each of the following Questions, there is a certain relationship between two given words on one side of :: and one word is given on another side of :: while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair bear : choose the correct alternatives.

1. Aeroplane : Cockpit :: Train : ?  
(a) Wagon (b) Coach  
(c) Compartment (d) Engine
2. Amnesia : Memory :: Paralysis : ?  
(a) Movement (b) Limbs  
(c) Handicapped (d) Legs
3. Meningitis : Brain :: Cirrhosis : ?  
(a) Lungs (b) Brain  
(c) Liver (d) Heart

4. Book : Publisher :: Film : ?  
(a) Producer (b) Director  
(c) Editor (d) Writer
5. Forecast : Future :: Regret : ?  
(a) Present (b) Atonement  
(c) Past (d) Sins
6. Influenza : Virus :: Typhoid : ?  
(a) Bacillus (b) Parasite  
(c) Protozoa (d) Bacteria
7. Haemoglobin : Iron :: Chlorophyll : ?  
(a) Copper (b) Magnesium  
(c) Cobalt (d) Calcium
8. Radio : Listener :: Film : ?  
(a) Producer (b) Actor  
(c) Viewer (d) Director

9. Milk : Emulsion :: Butter : ?  
 (a) Aerosol (b) Suspension  
 (c) Sol (d) Gel
10. Spider : Insect :: Crocodile : ?  
 (a) Reptile (b) Mammal  
 (c) Frog (d) Carnivore
11. Dum Dum : Kolkata :: Palam : ?  
 (a) Kerala (b) Delhi  
 (c) Chennai (d) Mumbai
12. Foresight : Anticipation :: Insomnia : ?  
 (a) Treatment (b) Disease  
 (c) Sleeplessness (d) Unrest
13. USA : Congress :: Iran : ?  
 (a) Althing (b) Storting  
 (c) Majlis (d) Cortes
14. Karnataka : Gold :: Madhya Pradesh : ?  
 (a) Diamond (b) Iron  
 (c) Copper (d) Gems
15. Carbon : Diamond :: Corundum : ?  
 (a) Pearl (b) Pukhraj  
 (c) Garnet (d) Ruby
16. Funk : Vitamins :: Curie : ?  
 (a) Uranium (b) Radium  
 (c) Radioactivity (d) Photography
17. Virology : Virus :: Semantics : ?  
 (a) Amoeba (b) Language  
 (c) Nature (d) Society
18. Pituitary : Brain :: Thymus : ?  
 (a) Larynx (b) Spinal Cord  
 (c) Throat (d) Chest
19. Novelty : Oldness :: Newness : ?  
 (a) Culture (b) Discovery  
 (c) Model (d) Antiquity
20. Blunt : Sharp :: Sow : ?  
 (a) Water (b) Crow  
 (c) Farm (d) Reap
- (c) Protest : Resentment  
 (d) Trail : Error
23. Autumn : Weather  
 (a) Season : Change (b) Spring : Flower  
 (c) Winter : Retreat (d) Fall : Digress
24. Platform : Train  
 (a) Aeroplane : Aerodrome  
 (b) Hotel : Tourist  
 (c) Quay : Ship  
 (d) Footpath : Traveller
25. Paper : Ream  
 (a) Eggs : Dozen (b) Books : Pile  
 (c) Twigs : Bush (d) Food : Packet
26. Error : Infallible  
 (a) Cure : Irreversible  
 (b) Flaw : Impeccable  
 (c) Emotion : Invulnerable  
 (d) Defect : Intolerable
27. Druggist : Pharmacy  
 (a) Physician : Patient  
 (b) Carpenter : Wood  
 (c) Librarian : Catalogue  
 (d) Chef : Restaurant
28. Shoe : Leather  
 (a) Medicine : Doctor (b) Highway : Asphalt  
 (c) Train : Wagon (d) Bus : Conductor
29. Pain : Ache  
 (a) Fever : Illness (b) Suffering : Trouble  
 (c) Lazy : Lethargic (d) Damp : Arid
30. Fish : Mermaid  
 (a) Cat : Lion (b) Horse : Centaur  
 (c) Unicorn : Tapestry (d) Pegasus : Fly

**Directions:** In each of the following Questions, there is a certain relationship between two given numbers on one side of :: and one number is given on another side of :: while another number is to be found from the given alternatives, having the same relationship with this number as the numbers of the given pair bear : choose the best alternative

**Directions:** The following questions consist of two words each that have a certain relationship to each other, followed by four lettered pairs of words. Select the lettered pair that has the same relationship as the original pair of words.

21. Cattle : Drove  
 (a) Soldier : Crew (b) Grain : Bundle  
 (c) Chicken : Brood (d) Bees : Heap
22. Thanks : Gratitude  
 (a) Courtesy : Manners  
 (b) Salutation : Flag
31. 14 : 9 :: 26 : ?  
 (a) 12 (b) 13  
 (c) 15 (d) 31
32. 8 : 28 : 27 : ?  
 (a) 55 (b) 63  
 (c) 64 (d) 65
33. 68 : 130 :: ? : 350  
 (a) 210 (b) 216  
 (c) 222 (d) 240

Analogy

34. 1 : 1 :: 25 : ?

- (a) 26 (b) 125  
(c) 240 (d) 625

35. 6 : 18 :: 4 : ?

- (a) 2 (b) 6  
(c) 9 (d) 8

36. 42 : 56 :: 72 : ?

- (a) 81 (b) 90  
(c) 92 (d) 100

37. 49 : 81 :: 100 : ?

- (a) 64 (b) 144  
(c) 169 (d) 170

38. 9 : 80 :: 100 : ?

- (a) 901 (b) 1009  
(c) 9889 (d) 9999

39. 7584 : 5362 :: 4673 : ?

- (a) 2367 (b) 2451  
(c) 2531 (d) 2231

40. 3265 : 4376 :: 4673 : ?

- (a) 2154 (b) 3562  
(c) 5487 (d) 5784

**Directions:** In each of the following Questions, choose that set of numbers from the five alternatives sets, that is similar to the given set.

41. Given Set : (9, 15, 21)

- (a) (10, 14, 16) (b) (7, 21, 28)  
(c) (5, 10, 25) (d) (6, 9, 10)

42. Given Set : (14, 23, 32)

- (a) (15, 23, 31) (b) (14, 19, 24)  
(c) (13, 21, 29) (d) (12, 21, 30)

43. Given Set : (1, 8, 27)

- (a) (5, 12, 32) (b) (32, 39, 59)  
(c) (60, 79, 86) (d) (64, 125, 216)

44. Given Set : (49, 25, 9)

- (a) (36, 16, 4) (b) (36, 25, 16)  
(c) (39, 26, 13) (d) (64, 27, 8)

45. Given Set : (6, 36, 63)

- (a) (7, 49, 98) (b) (8, 64, 46)  
(c) (9, 84, 45) (d) (11, 111, 84)

46. Given Set : (21, 51, 15)

- (a) (21, 30, 51) (b) (21, 35, 41)  
(c) (21, 51, 42) (d) (21, 91, 35)

47. Given Set : (8, 3, 2)

- (a) (10, 6, 5) (b) (63, 8, 3)  
(c) (95, 24, 5) (d) (168, 15, 4)

48. Given Set : (23, 29, 37)

- (a) (13, 15, 23) (b) (17, 21, 29)  
(c) (31, 37, 49) (d) (41, 47, 53)

49. Given Set : (18, 8, 2)

- (a) (3, 7, 1) (b) (11, 12, 10)  
(c) (17, 9, 3) (d) (24, 22, 4)

50. Given Set : (63, 49, 35)

- (a) (72, 40, 24) (b) (72, 48, 24)  
(c) (64, 40, 28) (d) (81, 63, 45)

**Directions:** In each of the following Questions, there is some relationship between the terms to the left of :: and the same relationship holds between the two terms to its right. Also, in each question, one term either to the right of :: or to the left of it is missing. This term is given as one of the alternatives given below each question. Find out this term.

51. QDXM : SFYN :: UIOZ : ?

- (a) WKPA (b) QNLA  
(c) LPWA (d) PAQM

52. ASTN : ZTSO :: MSUB : ?

- (a) LRRC (b) LTTA  
(c) NTVC (d) LTTC

53. FILM : ADGH :: MILK : ?

- (a) ADGF (b) HDGE  
(c) HDGF (d) HEGF

54. QPRS : TUWV :: JIKL : ?

- (a) MNOP (b) MNPO  
(c) NMOP (d) NMPO

55. FJUL : BOQQ :: LHRX : ?

- (a) BKPR (b) MNCC  
(c) HRY Y (d) HMNC

**Directions:** In each questions below, two pairs of numbers are given but one number in the second pair is missing. Identify the relationship between the two numbers in the first pair and find the missing number in the second pair such that the numbers in second pair also follow the same relationship.

56. 20 : 30 :: 110 : ?

- (a) 123 (b) 321  
(c) 312 (d) 132

57. 176 : 14936 :: 549 : ?

- (a) 256181 (b) 521618  
(c) 251681 (d) 251618

58. 6 : 39 :: 10 : ?

- (a) 105 (b) 150  
(c) 149 (d) 152

59. 14 : 195 :: 21 : ?

- (a) 440 (b) 404  
(c) 441 (d) 414

60. 25 : 50 :: 15 : ?

- (a) 45 (b) 30  
(c) 35 (d) 40

61. 125 : 5 :: 64 : ?

- (a) 2 (b) 4  
(c) 6 (d) 8

62. 24618 : 21 :: 87532 : ?

- (a) 25 (b) 50  
(c) 20 (d) 30

63. 63 : 80 :: 15 : ?

- (a) 24 (b) 12  
(c) 42 (d) 12

64. 100 : 10 :: 121 : ?

- (a) 10 (b) 11  
(c) 9 (d) 8

65. 25 : 125 :: 64 : ?

- (a) 521 (b) 512  
(c) 513 (d) 520

66. 36 : 63 :: 81 : ?

- (a) 16 (b) 18  
(c) 17 (d) 15

67. 36 : 11 :: 64 : ?

- (a) 51 (b) 14  
(c) 15 (d) 41

68. 13 : 17 :: 23 : ?

- (a) 92 (b) 30  
(c) 29 (d) 31

69. 7 : 49 :: 12 : ?

- (a) 441 (b) 114  
(c) 141 (d) 144

70. 64 : 16 :: 27 : ?

- (a) 9 (b) 8  
(c) 10 (d) 7

71. 6 : 5 :: ? : 8

- (a) 5 (b) 9  
(c) 4 (d) 8

72. 2 : 22 :: ? : 2222

- (a) 220 (b) 022  
(c) 202 (d) 200

73. 6 : 64 :: 9 : ?

- (a) 112 (b) 121  
(c) 120 (d) 102

74. 130 : 5 :: 1010 : ?

- (a) 100 (b) 1  
(c) 10 (d) 1000

75. 20 : 7980 :: 12 : ?

- (a) 1800 (b) 1717  
(c) 1716 (d) None of these

76. 15 : 1125 :: 32 : ?

- (a) 278 (b) 287  
(c) 782 (d) 872

77. 16 : 240 :: 11 : ?

- (a) 100 (b) 90  
(c) 110 (d) 80

**Directions:** There are two pairs, the first pair follows some relationship. Use the same relationship to find the second analogy of the second pair.

78. FG : BC :: RI : ?

- (a) EN (b) NE  
(c) MF (d) ST

79. IE : RV :: KC : ?

- (a) PU (b) PX  
(c) XP (d) RW

80. DH : GL :: PQ : ?

- (a) RS (b) SU  
(c) TW (d) US

81. EDC : RQP :: MLK : ?

- (a) XYZ (b) PQR  
(c) ZYX (d) NOP

82. AGJ : DKO :: STD : ?

- (a) VXI (b) XVW  
(c) XWV (d) WXI

83. AKSHAY : BKUHDY :: DISHA : ?

- (a) EIUHD (b) EIUDH  
(c) IEUHD (d) IEDHU

84. ROAD : VTGK :: BOX : ?

- (a) STD (b) FTD  
(c) FDT (d) DFT

85. PLUM : OQKMTVLN :: MANGO : ?

- (a) LNBZOMFHNP (b) NLBZMOFHNP  
(c) LNZBMOFHNP (d) None of these

86. JHD : KLIJEF :: PNR : ?

- (a) QRPOST (b) QROPST  
(c) QORPTS (d) STQRPO

87. VCD : CDV :: PCS : ?

- (a) PSC (b) PSS  
(c) CSP (d) PCC

88. JCB : NGF :: XPL : ?

- (a) BTP (b) TBP  
(c) BPT (d) TPB

89. ESPI : KMJO :: ? : YLNV

- (a) SRPT (b) SRTP  
(c) RSTP (d) EFHB

Analogy

90. NCRT : XMBD :: ? : LVDI  
(a) LBYT (b) BLYT  
(c) LYBT (d) BLTY

91. L : O :: D : ?  
(a) W (b) X  
(c) Y (d) Z

92. EDC : RQP :: LKJ : ?  
(a) WXY (b) XYW  
(c) YXW (d) YWX

93. HB : SY :: KE : ?  
(a) PV (b) PB  
(c) VP (d) PU

*Directions: Each of these questions consists of a pair of words. Establish the relationship among the given pair and identify the pair that best illustrates a similar relationship from amongst the alternatives.*

94. Rectangle : Pentagon ::  
(a) Triangle : Rectangle  
(b) Diagonal : Perimeter  
(c) Side : Angle  
(d) Circle : Square
95. Simmer : Boil  
(a) glide : drift (b) drizzle : downpour  
(c) gambol : play (d) stagnate : flow

96. Key : Ignition  
(a) helmet : motorcycle  
(b) boot : saddle  
(c) switch : light  
(d) pad : helicopter

97. Tally : Votes  
(a) census : population  
(b) government : laws  
(c) taxation : revenue  
(d) team : athletes

98. Author : Manuscript  
(a) optician : spectacles  
(b) engineer : bridge  
(c) architect : blueprint  
(d) doctor : stethoscope

99. Libertine : Immorality  
(a) victim : depravation  
(b) miser : selfishness  
(c) altruist : selflessness  
(d) policeman : law

100. Extort : Obtain  
(a) Purify : Strain (b) Steal : Borrow  
(c) Explode : Ignite (d) Pilfer : Steal

101. Billy : Goat  
(a) Cow : Bull (b) Lord : Maid  
(c) Man : Woman (d) Cow : Calf

102. Blade : Grass ::  
(a) Dig : Shovel (b) Size : Hole  
(c) Grain : Rice (d) Food : Morsel

103. Work : Motive  
(a) Body : Mind (b) Wall : Paint  
(c) Body : Food (d) Petrol : Car

104. Chair : Table  
(a) Object : Prop (b) Son : Father  
(c) Car : Scooter (d) Pen : Paper

105. Window : Curtain  
(a) Door : Frame (b) Book : Jacket  
(c) CPU : Cabinet (d) Casing : Wire

106. Medicine : Dose  
(a) Food : Quantity (b) Basket : Waste Paper  
(c) Container : Water (d) Fan : Power

107. Mind : Body  
(a) Water : Air (b) CPU : Hard Disk  
(c) Ship : Oil (d) Software : Computer

108. Photograph : Film  
(a) Zero : Binary (b) Positive : Negative  
(c) Comma : Full stop (d) Light : Prism

109. Mirror : Glass  
(a) Music : Violin (b) Match : Matchbox  
(c) Shirt : Cloth (d) Air : Flow

110. Hardware : Software  
(a) Body : Mind (b) Paper : Colour  
(c) Fan : Electricity (d) Car : Scooter

111. Sunflower : Light  
(a) Torch : Battery (b) Scholar : Books  
(c) Ink : Print (d) Mould : Humidity

*Directions: Select one alternative out of (a), (b), (c) and (d) which is analogous to the first two.*

112. Growth : Death :: Increase : ?  
(a) Ease (b) Tease  
(c) Decrease (d) Cease

113. Touch : Feel :: Greet : ?  
(a) Smile (b) Acknowledge  
(c) Success (d) Manners

114. Professor : Lecture :: Doctor : ?  
(a) Hospital (b) Disease  
(c) Treatment (d) Patient

115. Lion : Cub :: Horse : ?  
(a) Lion (b) Foal  
(c) Animal (d) Kitten



116. Man : Woman :: Bull : ?  
(a) She Goose (b) Mare  
(c) Cow (d) She Duck
117. Tempted : Sin :: Food : ?  
(a) Baby (b) Miserly  
(c) Glutton (d) Prig
118. Child : Lolly :: Kitten : ?  
(a) Honey (b) Milk  
(c) Sugar (d) Chocolate
119. Technique : Dexterity :: Competence : ?  
(a) Efficiency (b) Adroitness  
(c) Ability (d) Effort
120. Cobbler : Leather :: Weaver : ?  
(a) Cotton (b) Jute  
(c) Fibre (d) Thread
121. Lion : Cub :: Cat : ?  
(a) Calf (b) Duckling  
(c) Kitten (d) Cub
122. Calcium : Bone :: Retinol : ?  
(a) Nerves (b) Eyes  
(c) Skin (d) Blood
123. 'Furniture' is related 'Table' in the same way as 'Stationery' is related to  
(a) Store (b) Chair  
(c) Office (d) Pencil
124. Complete the sentence by using a verbal analogy similar to the first part of the sentence as part and whole. Ink is to a pen, as ..... is to a book.  
(a) pages (b) picture  
(c) colour (d) smell  
Complete the analogy.
125. Carpenter is to chisel, as cobbler is to .....  
(a) anvil (b) saw  
(c) drill (d) axe
126. Medicine is to cure as law is to .....  
(a) anarchy (b) discipline  
(c) treason (d) etiquette
127. King is to throne as judge is to .....  
(a) lawyer (b) bench  
(c) court (d) trial
128. Paper is to tree as glass is to .....  
(a) clear (b) sand  
(c) window (d) stone
129. See is to. look as hear is to .....  
(a) sense (b) nerve  
(c) listen (d) noise
130. Machine is to mechanic as baby is to .....  
(a) mother (b) pediatrician  
(c) ward (d) class Teacher
131. A mirror always .....  
(a) distorts  
(b) reflects  
(c) reveals the truth  
(d) retracts
132. The pair of words is given below. Words of this pair have certain relationship of each other. This pair is followed by four pairs of words. Select a pair of words out of these four pairs of words whose words have the same relationship to each other as the words of the original pair.  
Rectangle : Octagon  
(a) Pentagon : Heptagon  
(b) Cone : Sphere  
(c) Triangle : Hexagon  
(d) Angle : Quadrilateral
133. Three words which have something in common among themselves are given below. Choose the alternative which is most appropriate description about the three words.  
Species : Genera : Family  
(a) These are biological terms  
(b) These give 'information about living things for classification  
(c) These are trains of animal kingdom  
(d) These are groups of animals

## ANSWERS

1. (d)	2. (a)	3. (c)	4. (a)	5. (c)	6. (d)	7. (b)	8. (c)	9. (d)	10. (a)
11. (b)	12. (c)	13. (c)	14. (a)	15. (d)	16. (b)	17. (b)	18. (d)	19. (d)	20. (d)
21. (c)	22. (a)	23. (c)	24. (c)	25. (d)	26. (a)	27. (c)	28. (b)	29. (d)	30. (d)
31. (c)	32. (d)	33. (c)	34. (d)	35. (d)	-36. (b)	37. (b)	38. (d)	39. (b)	40. (d)
41. (d)	42. (d)	43. (d)	44. (a)	45. (b)	46. (d)	47. (b)	48. (d)	49. (d)	50. (d)
51. (a)	52. (d)	53. (c)	54. (b)	55. (d)	56. (d)	57. (c)	58. (a)	59. (a)	60. (b)
61. (b)	62. (a)	63. (a)	64. (b)	65. (b)	66. (b)	67. (c)	68. (c)	69. (d)	70. (a)
71. (b)	72. (c)	73. (b)	74. (c)	75. (c)	76. (a)	77. (c)	78. (*)	79. (b)	80. (b)
81. (c)	82. (a)	83. (a)	84. (b)	85. (c)	86. (b)	87. (c)	88. (a)	89. (b)	90. (d)
91. (a)	92. (c)	93. (a)	94. (a)	95. (b)	96. (c)	97. (a)	98. (c)	99. (c)	100. (d)
101. (c)	102. (c)	103. (d)	104. (d)	105. (c)	106. (a)	107. (d)	108. (a)	109. (c)	110. (a)
111. (b)	112. (d)	113. (d)	114. (c)	115. (b)	116. (c)	117. (c)	118. (b)	119. (a)	120. (a)
121. (c)	122. (b)	123. (d)	124. (a)	125. (a)	126. (a)	127. (b)	128. (b)	129. (c)	130. (a)
131. (b)	132. (c)	133. (a)							

## EXPLANATIONS

- As the pilot of an aeroplane sits in the cockpit, the driver of a train works in the engine.
- First is the name given to the state of loss of the second.
- First is a disease which affects the second.
- The production of first is done by the second.
- Forecast is for future happenings and Regret is for past actions.
- First is a disease caused by the second.
- Second is the chief constituent of the first.
- First is meant for the second.
- Milk is an emulsion, while butter is a gel.
- Second denotes the class to which the first belongs.
- Dum Dum is an airport in Kolkata and Palam is an airport in Delhi.
- The words in each pair are synonyms of each other.
- The parliament of U.S.A. is called Congress and that of Iran is called Majlis.
- Gold is mined in Karnataka. Likewise, diamonds are mined in Madhya Pradesh.
- Second is a form of the first.
- Funk discovered vitamins and Curie discovered radium.
- Virology deals with the effects of virus. Similarly, semantics deals with the effects of language.
- Pituitary is a gland in the brain. Similarly, thymus is a gland of the chest.
- The words in each pair are antonyms of each other.
- The words in each pair are antonyms of each other.
- Berries grow on bush; melon grows on vine.
- First prepares the second.
- The words in each pair are synonyms of each other.
- A hermit leads a life of solitude. Likewise, an ascetic leads a life of self-demi.
- Script is a written form of drama. Similarly, score is a written piece of symphony (a type of music).
- Legible means able to be read. Similarly, audible means able to be heard.
- First indulge in the second.
- Cape is the projection of land. Similarly, toe is the projection of foot.
- Second is the effect of first after consumption.
- Coal produces thermal energy. Similarly, water produces hydel energy.
- The relationship is  $(2x - 4) : x$ .
- The relationship is  $x^3 : (x + 1)^3 + 1$ .
- Clearly,  $68 = 4^3 + 4$ ;  $130 = 5^3 + 5$ ;  $350 = 7^3 + 7$ .  
So, missing number =  $6^3 + 6 = 216 + 6 = 222$ .
- The relationship is  $x : x^2$ .
- The relationship is  $x : \frac{x^2}{2}$ .
- Clearly,  $42 = 6 \times 7$ ;  $56 = 7 \times 8$ ;  $72 = 8 \times 9$ .  
So, missing number =  $9 \times 10 = 90$ .



37. The relationship is  $x^2 : (x + 2)^2$ .
38. The relationship is  $x : (x^2 - 1)$ .
39. The relationship is  $x : (x - 2222)$ .
40. The relationship is  $x : (x + 1111)$ .
41. In each set,  $\frac{1\text{st number} + 3\text{rd number}}{2}$   
= 2nd number.
42. In each set, 2nd number = (1st number + 9).  
and, 3rd number = (2nd number + 9)
43. Each set contains cubes of three consecutive natural numbers in order.
44. Each set contains squares of three alternate natural numbers in reverse order.
45. In each set, second number is the square of the first number and the third number is obtained by reversing the order of the digits of the second number.
46. In each set, (3rd number  $\times$  2) + 1st number = 2nd number.
47. In each set, 1st number = (2nd number)<sup>2</sup> - 1;  
and 2nd number = (3rd number)<sup>2</sup> - 1.
48. Each set consists of prime numbers only.
49. Each set consists of even numbers only whose H.C.F. is 2.
50. Each set consists of numbers which are obtained by multiplying a certain number by 9, 7 and 5 respectively.  
Thus, in the given set, 63  
=  $7 \times 9$ , 49 =  $7 \times 7$ , 35 =  $7 \times 5$   
Similarly,  
 $81 = 9 \times 9$ ,  $63 = 9 \times 7$ ,  $45 = 9 \times 5$
51. The first two letters of the first group are each moved two steps forward and the last two letters are each moved one step forward to obtain the corresponding letters of the second group.
52. The first and third letters of the first group are each moved one step backward while the second and fourth letters are each moved one step forward to obtain the corresponding letters of the second group.
53. Each letter of the first group is moved five steps backward to obtain the corresponding letter of the second group.
54. The first and fourth letters of the first group are each moved three steps forward while the second and third letters are each moved five steps forward to obtain the corresponding letters of the second group.
55. The first and third letters of the first group are each moved four steps backward while the second and fourth letters are each moved five steps forward to obtain the corresponding letters of the second group.
56.  $(n)^2 + n = (11)^2 + 11 = 121 + 11 = 132$
57. The number and its corresponding square are given.  
549 : 251681
58.  $(n)^2 + n/2 = (10)^2 + 10/2 = 100 + 5 = 105$
59. 1 is subtracted from the square of the first number to get the second number.  
(14) and  $(14)^2 = 196 - 1 = 195$   
Similarly, (21) and  $(21)^2 = 441$   
 $441 - 1 = 440$
60.  $25 \times 2 = 50$   
Similarly,  $15 \times 2 = 30$
61. First number is cube of second number  
 $(5)^3 = 125$ ,  $(4)^3 = 64$
62. Second is the sum of digits of first  
 $24618 = 2 + 4 + 6 + 1 + 8 = 21$   
 $87532 = 8 + 7 + 5 + 3 + 2 = 25$
63.  $(8)^2 - 1 : (9)^2 - 1 :: (4)^2 - 1 : (5)^2 - 1$   
So,  $(5)^2 - 1 = 25 - 1 = 24$
64. Second number is square root of first number.  
Square root of (121) is (11).
65. Square and cube of a number are given in the 1st pair.  
 $(5)^2 : (5)^3 :: (8)^2 : (8)^3$   
So,  $(8)^3 = 512$
66. The first number is reversed to get the second number. (36) after reversing is (63). Similarly, (81) becomes (18).
67.  $36 = (6)^2$ , one number less than (6) is (5) and  $(5)^2 = 25$   
 $36 - (5)^2 = 11$  So,  $(6)^2 : (6)^2 - (5)^2$   
Similarly,  $(8)^2 : (8)^2 - (7)^2 = 64 - 49 = 15$
68. The next prime number to (13) is (17). Similarly, the next prime number to (23) is (29).
69. The number and its square are given.  
 $(7) : (7)^2 :: (12) : (12)^2$   
 $(12)^2 = 144$

**Analogy**

70.  $(4)^3 : (4)^2 :: (3)^3 : (3)^2$   
 $(3)^2 = 9$

71. One is subtracted from the first number to give the second number.

$(6) \text{ and } (6) - (1) = (5)$

Similarly, because the second number of the second pair is (8) given and first number is missing, then

$n - (1) = 8, n = (9)$   
 $(9) - (1) = 8$

72. Second number, divided by (11), gives the first number.

$22/11 = 2$   
 $2222/11 = 202$

73.  $(6) \text{ and } (6) + (2) = (8) \text{ and } (8)^2 = 64$  Similarly,  $(9) \text{ and } (9) + (2) = (11) \text{ and } (11)^2 = 121$ .

74.  $(n)^3 + n : n$

Hence,  $(10)^3 + 10 : 10$   
 $= 1000 + 10 : 10$   
 $= 1010 : 10$

75.  $(n)^3 - n = (12)^3 - 12$   
 $= 1716$

76. The digits of the number are treated separately and their corresponding cubes are given respectively.

ie,  $15 = (1)^3 (5)^3 = 1125$   
 $32 = (3)^3 (2)^3 = 278$

77.  $(n)^2 - n = (11)^2 - 11$   
 $= 121 - 11 = 110$

78.  $FG : BC :: RI : NE$

79.  $IE : RV$

I is 9th letter from left; R is 9th from right, similarly E is 5th from left ; V is 5th from the right in the first pair.

So,  $KC : PX$

K is 11th letter from left, P is 11th letter from right and C is 3rd letter from left, X is 3rd letter from right.

80.  $DH : GL :: PQ : SU$

81. Here the analogies are the respective positions in the first half and second half from left.

82.  $AGJ : DKO$

83. Where as remaining letters are same.

84.  $AKSHAY : BKUHDY$

85. In the place of (P) one preceding and one succeeding letters are written. In the same way all letters are replaced by their preceding and succeeding letters of alphabet.

86. Every letter is replaced by two succeeding letters.  
 87. The last two letters and 1st letter have interchanged their places from left set to the right set in the 1st pair.

88.  $J + 4 = N$   
 $C + 4 = G$   
 $B + 4 = F$  Similarly,  
 $X + 4 = B$   
 $P + 4 = T$   
 $L + 4 = P$

89.  $ESPI : KMJO$

$K - 6 = E$   $Y - 6 = S$   
 $M + 6 = S$   $L + 6 = R$   
 $J + 6 = P$  Similarly,  $N + 6 = T$   
 $O - 6 = 1$   $V - 6 = P$

90. (10) letters are subtracting from the second group of letters to get the first group of letters.

$X - 10 = N$   $L - 10 = B$   
 $M - 10 = C$  Similarly,  $V - 10 = L$   
 $B - 10 = R$   $D - 10 = T$   
 $D - 10 = T$   $I - 10 = Y$

**Solutions (91 to 93)**

The series is as follows

M L K J I H G F E D C B A →  
 Z Y X W V U T S R Q P O N

91. (L) is 12th from right and (O) is 12th from left. Similarly, (D) is 4th from right and (W) is 4th from left in first and second halves of series respectively.

92.  $E + 13 = R$   $L + 13 = Y$   
 $D + 13 = Q$  Similarly,  $K + 13 = X$   
 $C + 13 = P$   $J + 13 = W$

93. These are respective positions from left and right.

94. A pentagon has one side more than rectangle. Similarly, a rectangle has one side more than triangle.
95. After Simmer, Boiling starts. Similarly after Drizzle, Downpour starts.
96. After moving 'Key', 'Ignition' starts. Similarly when . we press 'Switch', 'Light ons'.
97. 'Tally' and 'Votes' are related in the same way as 'Census' and 'Population' are related.
98. 'Author' writes 'Manuscript'. Similarly 'Architect' draws 'Blueprint'.
99. A 'Libertine' person has 'Immorality'. Similarly an 'Altruist' person has 'Selflessness'.
100. As Extort and Obtain related. Similarly, Pilfer and Steal are related to each other.
101. First is male and second is female.
102. Single leaf of Grass is called Blade. Similarly, single seed of rice is called grain.
103. 'Motive' requires 'Work'. Similarly, 'Car' requires 'Petrol'.
104. As 'Chair' and 'Table' are related. Similarly, 'Pen' and 'Paper' are related.
105. As 'Window' is covered by 'Curtain'. Similarly 'CPU' is 'covered' by 'Cabinet'.
106. 'Medicine' is given in 'Dose'. Similarly 'Food' is taken in 'Quantity'.
107. As 'Body' has 'Mind'. Similarly, 'Computer' has 'Software'.
108. As 'Photograph' and 'Film' are related to each other. Similarly, 'Zero' and 'Binary' are related to each other.
109. 'Mirror' is made from 'Glass'. Similarly, 'Shirt' is made from 'Cloth'.
110. 'Hardware' and 'Software' are related to each other. Similarly, 'Body' and 'Mind' are related to each other.
111. As 'Sunflower' moves towards 'Light'. Similarly, 'Scholar' moves towards 'Books'.
112. As 'Growth' and 'Increase' are related. Similarly, 'Death' and 'Cease' are related.
113. As 'Touch' is related to 'Feel'. Similarly, 'Greet' is related to 'Manners'.
114. 'Professor' gives 'Lecture'. 'Doctor' gives 'Treatment'.
115. Baby 'Lion' is called 'Cub'. Similarly, baby 'Horse' is called 'Foal'.
116. As female of 'Man' is 'Woman'. Similarly, female of 'Bull' is 'Cow'.
117. As 'Tempted' and 'Sin' are related. Similarly, 'Food' and 'Glutton' are related.
118. 'Child requires 'Lolly'. Similarly, 'Kitten' requires 'Milk'.
119. As 'Technique' and 'Dexterity' are related. Similarly, 'Competence' and 'Efficiency'.
120. 'Cobbler' works on 'Leather'. Similarly, 'Weaver' works on 'Cotton'.
121. Baby 'Lion'. is called 'Cub'. Similarly, baby 'Cat' is called 'Kitten'.
122. As Calcium is related to Bone, similarly Retinol is related to Eyes.
123. 'Table' comes under 'Furniture'. Similarly, 'Pencil' comes under 'Stationery'.
124. Ink is to a pen, as pages is to a book.
125. Chisel is a tool of carpenter. Similarly, anvil is a tool of cobbler.
126. As medicine is related to cure, similarly law is related to anarchy.
127. The place where king sit is called throne, similarly the place where judge sit is called bench.
128. Paper is made from tree similarly glass is made from sand.
129. As see is related to look, similarly hear is related to listen.
130. As machine is related to mechanic, similarly baby is related to mother.
131. A mirror always reflects.
132. A rectangle has four sides while an octagon has eight sides i.e., second has double side than first. Similarly, triangle has three sides while a hexagon has six sides.
133. Species, genera and family are biological terms.