Chapter 3

Classification

Classification

Classification means 'to sort the items of a given group on the basis of a certain common quality they possess and then spot the stranger or odd one out'.

ODD ONE OUT WORDS :

In this type of classification, four words are given, out of which three are almost same in matter or meaning and one word is different from the other three. One has to find out the word which is different from the rest.

Directions (ILLUSTRATION 1-3) : Choose the word which is least like the other words in the group.

ILLUSTRATION 1:

(1) Copper (2) Zinc
(3) Brass (4) Aluminium

Sol. Here, all except Brass are metals, while Brass is an alloy. Hence, the answer is (3).

ILLUSTRATION 2:

(1) Biscuits (2) Chocolate
(3) Cake (4) Bread

Sol. All except chocolate are baked items.

ILLUSTRATION 3:

(1) Actor (2) Artiste
(3) Musician (4) Poet

Sol.

All except Poet perform on stage.

ODD ONE OUT LETTER COMPARISON :

In this classification of letters, four groups of letters or a series of letters are given as options. One has to select the option as answer which does not share the commonness of the others.

DIRECTIONS (EXAMPLE 4-7) : Choose the option which is least like the others in the group.

ILLUSTRATION 4:

(1) Volume : Litre (2) Time : Seconds
(3) Length : Metre (4) Pressure : Barometer

Sol. In all other pairs, except (4), the second word is the unit to measure the first. On the other hand, barometer is an instrument.

ILLUSTRATION 5:

(1) Painter : Gallery (2) Actor : Stage
(3) Mason : Wall (4) Farmer : Field

Sol. Clearly, the answer is (3). In all other pairs, second is the working place of the first.

ILLUSTRATION 6:

(1) Lion : Roar (2) Snake : Hiss
(3) Frog : Bleat (4) Bees : Hum

Sol. Clearly, the answer is (3). In all other pairs, second is the noise produced by the first.

The group of letters can be in natural or in reverse order, jumping letters, repetitive letters, even combination of capital letters, small letters, vowels or consonants.

ILLUSTRATION 7:

Which one of the following pairs is different from the other groups ?

(1) ABC : CBA (2) JKL : KLJ
(3) XYZ : ZYX (4) MNO : ONM

Sol. In all other pairs of groups, the letters in the second group are the letters of the first group written backwards.

GROUP OF NUMBERS :

The group of numbers can be consecutive numbers in natural or reverse series, multiplication, subtraction and mathematical rules can also be used to frame the groups.

ILLUSTRATION 8:

Which of the following pair of numbers is different from the other three pairs ?

(1) 14, 28 (2) 40, 80
(3) 16, 32 (4) 15, 35

Sol. In each pair the second number is double the first number. In option (4), the number 35 should have been 30, the very reason as to why it is the odd one out.

ILLUSTRATION 9:

(1) 70 : 80 (2) 54 : 62
(3) 28 : 32 (4) 21 : 24

Sol. In each of the pairs except (2), the ratio of the two numbers is 7 : 8.

ILLUSTRATION 10:

(1) 3 : 5 (2) 5 : 3
(3) 6 : 2 (4) 7 : 3

Sol. In all other pairs, the sum of two numbers is 8.

ILLUSTRATION 11:

(1) 16 : 64 (2) 9 : 36
(3) 36 : 216 (4) 49 : 343

Sol. All other pairs contain square and cube of the same number e.g. $36 = 6^2$ and $216 = 6^3$.

CHOOSING THE ODD NUMERAL :

In this type of question, certain numbers are given, out of which all except one share some common property and hence are alike, while one is different and this number is to be chosen as the answer.

ILLUSTRATION 12:

Choose the one which is different from others in the group.

(1) 8 (2) 64
(3) 125 (4) 28

***Sol.* (4).** All except 28 are perfect cubes of some number.

ILLUSTRATION 13:

(1) 131 (2) 151
(3) 161 (4) 171

***Sol.* (3)** The sum of the digits of each of the numbers except 161, is an odd number.

Miscellaneous Solved Examples

DIRECTIONS (Example 1-3) : In each of the following questions, four groups of letters are given. Three of them are alike in a certain way while one is different. Choose the odd one.

EXAMPLE 1:

(1) XW (2) FG
(3) ML (4) PO

***Sol.* (2)** All other groups contain two consecutive letters in reverse order.

EXAMPLE 2:

(1) BEH (2) CFI
(3) DGJ (4) EHL

***Sol.* (4)** In other groups, there is a gap of two letters between first and second as well as between second and third letters.

EXAMPLE 3:

(1) Nose (2) Eyes
(3) Skin (4) Teeth

***Sol.* (4)** All others are sense organs.

EXAMPLE 4:

(1) Cub (2) Chicken
(3) Pig (4) Pup

***Sol.* (3)**

All others are young ones of animals.

EXAMPLE 5:

(1) December (2) June
(3) January (4) March

***Sol.* (2)** All other months have 31 days.

EXAMPLE 6:

(1) Amsterdam (2) Europe
(3) Antarctica (4) Australia

***Sol.* (1)** All others are continents.

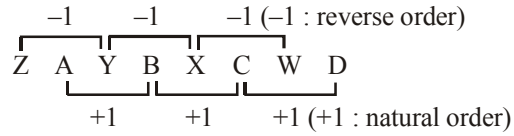
DIRECTIONS (Example 7-9) : Select the letter or group of letters that do(es) not fit the pattern of sequences/groups given below :

EXAMPLE 7:

Z, A, Y, B, X, C, V, D

(1) Y (2) B
(3) X (4) V

***Sol.* (4)** There are two alternate series :

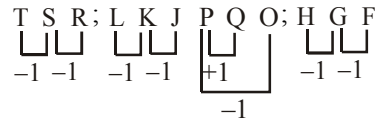


Letter 'W' should be in place of letter 'V'.

EXAMPLE 8:

(1) TSR (2) LKJ
(3) PQO (4) HGF

***Sol.* (3)** The sequence of alphabets in each group is in reverse order (–1). Only option (3) has sequence in disturbed order, i.e.,



EXAMPLE 9:

(1) DfH (2) MoQ
(3) UwY (4) lnO

***Sol.* (4)** In other groups, only the alphabet in the centre is of lower case. In this option letter 'L' on the left is in lower case.

DIRECTIONS (Example 10-11) : In each of the following questions, there are four options. The numbers, in these options, are alike in certain manner. Only one number does not fit in. Choose the one which is different from the rest.

EXAMPLE 10:

(1) 129 (2) 130
(3) 131 (4) 132

***Sol.* (3)** 131 is a prime number.

EXAMPLE 11:

(1) 64 (2) 84
(3) 16 (4) 36

***Sol.* (2)** All the other numbers are perfect squares.

DIRECTIONS (Example 12-14) : In the following questions select the pair which is different from the other three.

EXAMPLE 12:

(1) Day - Night (2) Clever - Foolish
(3) Clear - Blurred (4) Arrive - Come

Sol. **(4)** The two words in the other options are opposite to each other.

EXAMPLE 13:

(1) Ganga - Narmada (2) Thar - Gobi
(3) Stomach - Hands (4) Everest - Mountain

Sol. The related pairs have the same identity. (1) has river, (2) deserts and (3) parts of body. In (4) Mountain identifies the first word Everest.

EXAMPLE 14:

(1) Army - General (2) College - Principal
(3) Ship - Captain (4) Navy - Lieutenant

Sol. **(4)** The head of the Navy is Admiral

DIRECTIONS (Example 15-16) : Which of the following pair of numbers is different from the other three pairs ?

EXAMPLE 15:

(1) 92, 46 (2) 77, 38.5
(3) 30, 16 (4) 42, 21

Sol. (3) The second number is half of the first number.

EXAMPLE 16:

(1) 17, 37 (2) 8, 13
(3) 5, 13 (4) 23, 7

Sol. (2) 8 is not a prime number.

Exercise 1

DIRECTIONS (Qs. 1-4) : In each of the following questions, four words have been given, out of which three are alike in some manner and one is different. Choose the odd one out.

1. (1) Venus (2) Saturn
(3) Earth (4) Mercury

2. (1) Metre (2) Furlong
(3) Acre (4) Mile

3. (1) Raniganj (2) Jharia
(3) Baroda (4) Bokaro

4. (1) Faraday (2) Newton
(3) Edison (4) Beethoven

DIRECTIONS (Qs. 5 & 6) : In each of the following questions, four pairs of words are given out of which the words in three pairs bear a certain common relationship. Choose the pair in which the words are differently related.

5. (1) Bottle : Wine (2) Cup : Tea
(3) Pitcher : Water (4) Ball : Bat

6. (1) Atom : Electron (2) Train : Engine
(3) House : Room (4) Curd : Milk

DIRECTIONS (Qs. 7 & 8) : In each of the following questions, four pairs of words are given out of which the words in three pairs bear a certain common relationship. Choose the pair in which the words are differently related.

7. (1) Crime : Punishment (2) Judgment : Advocacy
(3) Enterprise : Success (4) Exercise : Health

8. (1) Broad : Wide (2) Light : Heavy
(3) Tiny : Small (4) Big : Large

DIRECTIONS (Qs. 9-13) : Numbers in the following questions are grouped under certain norms, except, the one which does not follow the norm. Find the odd set in each of the following.

9. (1) 001011 (2) 1101011
(3) 101101 (4) 100101

10. (1) 3,4, 8 (2) 6, 2, 9
(3) 1, 5, 7 (4) 2, 6, 9

11. (1) 3, 7, 5 (2) 2, 8, 6
(3) 7, 9, 5 (4) 3, 8, 2

12. (1) 13, 50, 37 (2) 23, 39, 40
(3) 18, 38, 44 (4) 74, 10, 16

13. (1) 7, 4, 9 (2) 13, 36, 7
(3) 5, 25, 9 (4) 11, 16, 7

DIRECTIONS (Qs. 14-25) : In each of the following number series one term is wrong. The wrong term is given as one of the four alternatives. Find the wrong term in each case.

14. 2, 12, 32, 63, 102
(1) 12 (2) 32
(3) 63 (4) 102

15. 1, 5, 9, 14, 25, 37, 49, 65
(1) 9 (2) 14
(3) 25 (4) 37

16. 0, 2, 6, 12, 18, 30, 42
(1) 12 (2) 18
(3) 30 (4) 42

17. 7, 17, 31, 49, 67, 97, 127
(1) 31 (2) 49
(3) 67 (4) 97

18. 5, 7, 11, 13, 15, 19, 23
(1) 11 (2) 13
(3) 15 (4) 19

19. 1, 2, 9, 28, 60, 126
(1) 28 (2) 60
(3) 126 (4) None of these

20. 3, 5, 9, 17, 36
(1) 3 (2) 5
(3) 9 (4) 36

21. 841, 529, 361, 289, 160, 121
(1) 361 (2) 289
(3) 160 (4) 121

22. 4, 18, 38, 100, 180, 294, 448
(1) 18 (2) 38
(3) 100 (4) 180

23. 3, 4, 5, 7, 24, 25, 9, 39, 41
(1) 9 (2) 39
(3) 41 (4) None of these

24. 5, 24, 65, 122, 213, 340
(1) 24 (2) 65
(3) 213 (4) 340

25. 4, 15, 16, 25, 36, 63, 64
(1) 15 (2) 16
(3) 25 (4) 36

DIRECTIONS (Qs.26-31) : In the following questions the wrong term and its substitution by the correct term are indicated as a pair in the four options to each question. Identify the correct pair.

26. 24, 49, 99, 94, 15, 31, 59, 58
(1) (49, 47) (2) (99, 95)
(3) (49, 101) (4) None of these

27. 12, 20, 56, 90, 132
(1) (20, 30) (2) (56, 42)
(3) (90, 72) (4) (132, 110)

28. 1, 2, 3, 5, 8, 13, 20, 34
(1) (1, 2) (2) (13, 12)
(3) (20, 21) (4) None of these

29. 1, 1, 1, 2, 4, 8, 3, 9, 27, 4, 16, 32
(1) (9, 6) (2) (16, 8)
(3) (27, 18) (4) (32, 64)

30. 8, 12, 18, 36, 72, 108, 216
(1) (8, 6) (2) (18, 24)
(3) (36, 27) (4) (216, 162)

31. 9, 8, 16, 25, 36, 49
(1) (9, 1) (2) (8, 9)
(3) (36, 33) (4) None of these

DIRECTIONS (Qs. 32 & 33) : There are four groups of letters in the following questions. Of these four are alike in some way and one of them is different. Identify the one that is different :

32. (1) RATES (2) TREAT
(3) GREAT (4) HEARD

33. (1) YXWV (2) TSRQ
(3) HGFD (4) MLKJ

DIRECTIONS (Qs. 34-49) : Four of the following five are alike a certain way and so form a group. Which is the one that does not belong to that group?

34. (1) Pen (2) Calculator
(3) Pencil (4) Ink
(5) Eraser

35. (1) Snake (2) Lizard
(3) Turtle (4) Whale
(5) Crocodile

36. (1) Lake (2) Pond
(3) Pool (4) Tank
(5) Brook

37. (1) Club (2) Brush
(3) Crayon (4) Pen
(5) Pencil

38. (1) Ring (2) Ornament
(3) Necklace (4) Bangle
(5) Bracelet

39. (1) Himachal Pradesh (2) Haryana
(3) Jammu & Kashmir (4) Chandigarh
(5) Punjab

40. (1) April (2) May
(3) July (4) September
(5) November

41. (1) Engineer (2) Advocate
(3) Doctor (4) Court
(5) Journalist

42. (1) He-goat (2) He-buffalo
(3) Cow (4) Bull
(5) Horse

43. (1) Plateau (2) Star
(3) Mountain (4) Forest
(5) Ocean

44. (1) Haryana (2) Gujarat
(3) Kerala (4) Tamilnadu
(5) Maharashtra

45. (1) Biscuits (2) Cakes
(3) Tarts (4) Cutlets
(5) Pastries

46. (1) Photograph (2) Poster
(3) Scenery (4) Picture
(5) Painting

47. (1) Asia (2) Europe
(3) Australia (4) Africa
(5) Canada

48. (1) Apple (2) Orange
(3) Carrot (4) Guava
(5) Tomato

49. (1) Actor (2) Dancer
(3) Musician (4) Poet
(5) Artist

DIRECTIONS (Qs.50-56) : In each of the following questions, five groups of letters are given. Four of them are alike in a certain way while one is different. Choose the odd one.

50. (1) DE (2) PQ
(3) TU (4) MO
(5) FG

51. (1) KP (2) MN
(3) HR (4) GT
(5) EV

52. (1) BCD (2) NPR
(3) KLM (4) RQP
(5) HGF

53. (1) PRT (2) MOQ
(3) GEC (4) TVX
(5) SUW

54. (1) VWY (2) QRT
(3) LMO (4) JKL
(5) DEG

55. (1) EBA (2) XUT
(3) TQP (4) JFE
(5) YVU

56. (1) JOT (2) OUT
(3) FED (4) DIN
(5) DOG

DIRECTIONS (Qs. 57-61) : In each of the following questions, four groups of letters are given, three of them are alike in a certain way while one is different. Choose the odd one.

57. (1) PUT (2) END
(3) OWL (4) ARM

58. (1) STUA (2) RQPA
(3) MLKA (4) HGFA

59. (1) BDYW (2) CEXZ
(3) DFYW (4) EGXV

60. (1) UAZF (2) SCXH
(3) RDWJ (4) KBPG

61. (1) ABCD (2) EGIK
(3) ACDF (4) CFIL

DIRECTIONS (Qs. 62-80): In each of the following questions, four alternatives are given, out of which three are alike in a certain way while one is different. Choose the odd one.

62. (1) JUDGE (2) SCANT
(3) CROWD (4) FLUSH

63. (1) Rose (2) Lotus
(3) Marigold (4) Lily

64. (1) USTO (2) OOT
(3) TTOU (4) SST

65. (1) BCD (2) NPR
(3) KLM (4) PQR

66. (1) 248 (2) 326
(3) 414 (4) 392

67. (1) Mango (2) Apple
(3) Brinjal (4) Grapes

68. (1) JOT (2) OUT
(3) FED (4) DIN

69. (1) KP (2) MN
(3) HR (4) GT

70. (1) 9611 (2) 7324
(3) 2690 (4) 1754

71. (1) 19-27 (2) 16-24
(3) 15-23 (4) 13-21

72. (1) Hour (2) Day
(3) Second (4) Time

73. (1) BHE (2) DJG
(3) SYV (4) pus

74. (1) 21 (2) 39
(3) 51 (4) 83

75. (1) Ladder (2 Staircase
(3) Bridge (4) Escalator

76. (1) Kiwi (2) Ostrich
(3) Eagle (4) Penguin

77. (1) RNJ (2) XTP
(3) MIE (4) ZWR

78. (1) Flood (2) Hurricane
(3) Explosion (4) Earthquake

79. (1) Grams (2) Litres
(3) Tonnes (4) Quintals

80. (1) BAT (2) RAT
(3) EAT (4) FAT

Exercise 2

DIRECTIONS (Qs.1-4) : Numbers in the following questions are grouped under certain norms, except the one which does not following the norm. Find the odd set in each of the following:

1. (1) 72, 60 (2) 108, 96
(3) 84, 72 (4) 60, 36

2. (1) 12, 8 (2) 6, 16
(3) 18, 6 (4) 32, 3

3. (1) 5, 4, 3 (2) 8, 3, 5
(3) 7, 5, 6 (4) 6, 5, 4

4. (1) 645 (2) 749
(3) 836 (4) 849

DIRECTIONS (Qs.5-8) : One of the numbers does not belong to the group. Find the number.

5. 87, 116, 145, 173, 203
(1) 87 (2) 116
(3) 145 (4) 173

6. 14, 39, 84, 155, 260
(1) 14 (2) 39
(3) 84 (4) 260

7. 4, 4, 8, 24, 96, 288, 2880
(1) 8 (2) 24
(3) 96 (4) 288

8. 5, 17, 65, 257, 1027
(1) 5 (2) 17
(3) 65 (4) 1027

DIRECTIONS (Q. 9) : In each of the following questions, four words have been given, out of which three are alike in some manner and one is different. Choose out the odd one.

9. (1) Nephrology (2) Entomology
(3) Astrology (4) Mycology

DIRECTIONS (Q. 10) : In each of the following questions, four pairs of words are given out of which the words in three pairs bear a certain common relationship. Choose the pair in which the words are differently related

10. (1) Ornithology : Birds (2) Mycology : Fungi
(3) Biology : Botany (4) Phycology : Algae

DIRECTIONS (Q. 11) : One set of letters in each of the following questions is different from the rest that are formed under certain norms. Find the odd set.

11. (1) NEERG (2) DER
(3) KNIP (4) DLEIF

DIRECTIONS (Q. 12) : In the following number series one term is wrong. The wrong term is given as one of the four alternatives. Find the wrong term in each case.

12. 1, 3, 8, 15, 24, 35
(1) 1 (2) 8
(3) 24 (4) 35

DIRECTIONS (Q.13) : In the following questions the wrong term and its substitution by the correct term are indicated as a pair in the four options to each question. Identify the correct pair.

13. 6, 8, 15, 46, 185, 926
(1) (8, 7) (2) (15, 17)
(3) (46, 44) (4) (185, 180)

DIRECTIONS (Qs.14-19) : One of the numbers does not belong to the group. Find the number.

14. 23,– 1, 14, 33, 47
(1) 23 (2) –1
(3) 14 (4) 33

15. (1) FBI (2) QMT
(3) VRY (4) HEK

16. (1) CJG (2) HNK
(3) ELI (4) JQN

17. (1) 28 (2) 65
(3) 126 (4) 215

18. (1) VWY (2) QRT
(3) LMO (4) JKL

19. (1) Tortoise (2) Duck
(3) Snake (4) Whale

Hints & SOLUTIONS

Exercise 1

1. **(3)** All except Earth denote Roman or Greek Gods and Goddesses.

2. **(3)** All except Acre are units of measuring distance, while acre is a unit of area.

3. **(3)** All except Baroda are famous for coal fields.

4. **(4)** All except Beethoven were scientists, while Beethoven was a musician.

5. **(4)** In all other pairs, first is used to hold the second.

6. **(4)** In all other pairs, second is a part of the first.

7. **(2)** In all other pairs, second is the result of the first.

8. **(2)** The words in all other pairs are synonyms.

9. **(2)** The total no. of digits is seven, others are six.

10. **(3)** It is the set of all prime numbers.

11. **(4)** The sum is not divisible, like other sets.

12. **(2)** The sum of all numbers in each set is 100 except (2) $\neq$ 100 .

13. **(3)** $(9-7)^2 = 4$, $(13-7)^2 = 36$, $(11-7)^2 = 16$, but $(9-5)^2 \neq 25$.

14. **(3)** If 63 is changed to 62, differences become 10, 20, 30, 40 which is a pattern of uniform increase.

15. **(2)** Taking alternate terms, we get two sequences, namely:
(1) 1, 9, 25, 49
The differences are 8, 16, 24 which increase by 8.
(2) 5, 14, 37, 65
Differences are 9, 23, 28
We can make differences increase by 8 if 14 is changed to 17.
5, 17, 37, 65 have differences 12, 20, 28

16. **(2)** The pattern of differences increasing by 2 is broken by 18 which should be replaced by 20.

17. **(3)** Change 67 to 71 and we get a pattern of differences increasing by 4.

18. **(3)** Alternate terms form two sequences. If 15 is changed to 17, difference in each sequence is 6.

19. **(2)** Change 60 to 65 and we have terms as
$0^3 + 1$, $1^3 + 1$, $2^3 + 1$, $3^3 + 1$, $4^3 + 1$, $5^3 + 1$

20. **(4)** Change 36 to 33 and we have differences doubling.

21. **(3)** All terms except 160 are perfect squares.

22. **(2)** By changing 38 to 48, we have differences as
14, 30, 52, 80, 114, 154. These differences differ by 16, 22, 28, 34, 40 which show a constant difference of 6.

23. **(2)** 3, 4, 5 are Pythagorean triples. 7, 24, 25 are Pythagorean triples.
Change 39 to 40 and 9, 40, 41 are also Pythagorean triples.
(Pythagorean triples are three numbers such that square of the largest number equals the sum of squares of the other two.)

24. **(2)** The terms should be $2^3 - 3$, $3^3 - 3$, $4^3 - 3$, $5^3 - 3$, $6^3 - 3$ and $7^3 - 3$

25. **(3)** By changing 25 to 35, we have
2^2, $4^2 - 1$, 4^2, $6^2 - 1$, 6^2, $8^2 - 1$, 8^2

26. **(2)** Consider the first four terms and the second four terms.
15, 31, 59, 58 are related as below
$31 = 2 \times 15 + 1$
$59 = 4 \times 15 - 1$
$58 = 4 \times 15 - 2$
Consider 24 , 49, 99, 94
$49 = 2 \times 24 + 1$
$99 = 4 \times 24 + 3$
$94 = 4 \times 24 - 2$
Change 99 to 95 and we have
$95 = 4 \times 24 - 1$

27. **(3)** $12 = 3^2 + 3$; $20^2 = 5^2 - 5$
$56^2 = 7^2 + 7$: $90 = 9^2 + 9$
$132 = 11^2 + 11$
72 should replace 90 since
$72 = 9^2 - 9$

28. **(3)** $3 = 1 + 2$, $5 = 2 + 3$, $8 = 3 + 5$,
$13 = 5 + 8$, $20 \neq 8 + 13$

29. **(4)** Terms follow the pattern n, n^2, n^3
i.e, 1, 1^2, 1^3, 2, 2^2, 2^3, 4, 4^2, 4^3
32 breaks the pattern. It should be 64

30. **(2)** $12 = \frac{3}{2} \times 8$

$18 = \frac{3}{2} \times 12$, $(24 = 2 \times 12)$

$36 = 2 \times 18$, $(36 = \frac{3}{2} \times 24)$

$72 = 2 \times 36$

$108 = \frac{3}{2} \times 72$

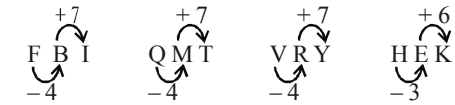
$216 = 2 \times 108$
The pattern is obtained if 18 is substituted by 24

31. **(3)** $9 + 16 = 25$
$8 + 25 = 33$
$16 + 33 = 49$
36 Should be substituted by 33

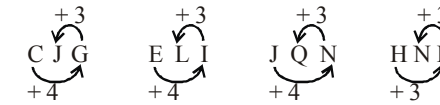
32. **(4)** E, A, T appears in some order in all other words.
33. **(3)** Letters not continuous.
34. **(2)** Pen, Pencil, Ink and Eraser are items of stationery whereas calculator is not.
35. **(4)** Snake, Lizard, Turtle and Crocodile are Reptiles while Whale is not.
36. **(5)** Brook is a natural stream of fresh water where as others may be artificially formed.
37. **(1)** Club is a heavy stick usually thicker at one end than the other. All others are used for writting or drawing.
38. **(2)** All others are different kinds of ornaments.
39. **(5)** Chandigarh is a union territory whereas others are states.
40. **(1)** April is the even month of the year whereas the other given months are odd.
41. **(5)** All others are professions.
42. **(3)** It is the female animal.
43. **(2)** Star is seen in the sky while all others are seen on earth itself.
44. **(1)** Others have sea-coast.
45. **(4)** All others are baked.
46. **(2)** A message is conveyed by the poster whereas others do not convey any message.
47. **(5)** All others are continents.
48. **(2)** Carrot grow under the ground
49. **(5)** All others are forms of artists.
50. **(4)** All other groups contain two consecutive letters of the alphabets.
51. **(3)** K is eleventh letter from A and P is eleventh letter from Z etc.
52. **(2)** Other letters are consecutive.
53. **(3)** All other groups contain alternate letters of the alphabet in-order.
54. **(4)** In other groups, first two letters are consecutive and between second and third there is a gap of one letter.
55. **(4)** In other groups, the last two letters are consecutive in reverse order an first letter there is a gap of 2 letters.
56. **(2)** This is the only group containing two vowels.
57. **(1)** All other groups begin with a vowel.
58. **(1)** In all other groups, the first three letters are in a reverse alphabetical order.
59. **(2)** First and second letters are alternate: fourth and third letters are alternate.
60. **(3)** In other groups, there is a gap of one letter, two letters and three letters between successive pair of letters.
61. **(3)** This is the only group that does not follow any rule while the others follow some rule.
62. **(1)** In other pairs only one vowel is used
63. **(2)** All except Lotus grows on land while lotus grows in water.
64. **(1)** Except USTO, all others have at least one letter repeated.
65. **(2)** All other groups contain three consecutive letters of the alphabet.
66. **(4)** In all the rest numbers, the third digit is the product of first and second digit.
67. **(3)** Except 'Brinjal' all the rest are the names of fruits, while 'Brinjal' is the name of a vegetable.
68. **(2)** This is the only group containing two vowels.
69. **(3)** In all other groups, the first letter occupies the same position from A onward as the second letter occupies from Z backward e.g., K is the eleventh letter from the beginning and P is the eleventh letter from the end of the alphabet.
70. **(2)** In all other numbers, the sum of the digits is 17.
71. **(2)** In all the rest groups there is no common factor of the two numbers..
72. **(4)** All the rest are units of time.
73. **(4)** In all other groups, the third and second letters are 3 steps ahead of the first and third letters respectively.
74. **(4)** 83 is the only prime number in the group.
75. **(3)** All except Bridge are used for up and down movement.
76. **(3)** All except Eagle are flightless birds.
77. **(4)** In all other groups, the first and second letters are moved 4 steps backward to obtain second and third letters respectively.
78. **(3)** All except Explosion are natural calamities.
79. **(2)** All except litre are units or measurement of the mass of a body.
80. **(3)** BAT, RAT, FAT – all are nouns while EAT is a verb

Exercise 2

1. **(4)** The difference in all the other cases is 12.
2. **(3)** The product in all other cases is 96.
3. **(4)** The first two are to be added and the third is to be subtracted to give a constant no.6 viz. $5 + 4 - 3 = 6$,
$8 + 3 - 5 = 6$, etc. but $6 + 5 - 4 \neq 6$
4. **(3)** It does not have '4' in the middle.
5. **(4)** All other numbers are successive multiples of 29.
Alternative method : Difference between successive numbers is 29, but it is 28 for 173.
6. **(4)** $14 = 2 + 2^2 + 2^3$, $39 = 3 + 3^2 + 3^3$ and so on but
$260 \neq 6 + 6^2 + 6^3$
7. **(4)** $4 \times 1 = 4$, $4 \times 2 = 8$; $8 \times 3 = 24$, $24 \times 4 = 96$ but
$96 \times 5 \neq 288$
8. **(4)** $5 = 2^2 + 1$: $17 = 2^4 + 1$
$65 = 2^6 + 1$; $257 = 2^8 + 1$
but $1027 \neq 2^{10} + 1$
Alternative method : Pattern is : (previous number $\times$ 4) – 3
$5 \times 4 - 3 = 17$, $17 \times 4 - 3 = 65$ and so on.
But, $257 \times 4 - 3 = 1025$
9. **(3)** All except Astrology are concerned with biology.
10. **(3)** In all other pairs, first is the study of second.
11. **(4)** The first four are colours written in reverse form where as (4) is not a colour.
12. **(1)** All the terms except 1 are of the form $n^2 - 1$
13. **(1)** Working backwards
$926 = 185 \times 5 + 1$
$185 = 46 \times 4 + 1$
$46 = 15 \times 3 + 1$
$15 = 7 \times 2 + 1$
$7 = 6 \times 1 + 1$
14. **(4)** All other numbers except 33 are of the form $n^2 - 2$
15. **(4)** In each other groups, the first letter is four letters ahead the second letter and the third letter is three letters ahead the first letter.



16. **(1)** In each other group, the third letter is four letters ahead the first letter and the second letter is three letters ahead the third letter.



17. **(4)** $(3)^3 + 1 = 28$,
$(4)^3 + 1 = 65$,
$(5)^3 + 1 = 126$,
$6^3 + 1 \neq 215$.
18. **(4)** In all other groups, the first two letters are consecutive and third letter is 2 letters ahead of the second.
19. **(4)** All except Whale lay eggs.