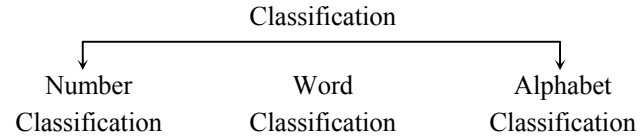
3 Odd Man Out

Classification can be defined as 'to assort the items of a given group on the basis of common qualities they possess and then spot the stranger out.'

Note

Classification means 'to assort the items of a given group on the basis of common quality they possess and then spot the stranger out.' In this test, generally, you are given a group of four or five items, out of which four are similar to one another in some manner and the fifth one is different. The candidate is required to choose this item which does not fit into the given group. In other words – to find the odd one out.

In this section, generally, you are given a group of five items, out of which four are similar to one another in some manner and the fifth one is different. Three types of odd man problems are asked in the examinatios: number based, alphabet based and word based. You are required to identify which picture is unlike the others. In other words - to find the odd one out or odd man out. Three type of Classification are:



I. Number Classification or Odd Number Group Classification:

Generally, classification test (or odd man out test) consists of 4, 5 to 6 items/ terms/ word.

Type-I Choosing the Odd Numeral: In this case, we need to choose the odd number from the given alternatives.

Directions: Choose the number which is different from other in the group/ odd number

1. **a.** 18 **b.** 32 **c.** 12 **d.** 42

Sol. **(b)** Except 32, all others are multiple of 6.

2. **a.** 7202 **b.** 6023 **c.** 5061 **d.** 4025

Sol. **(c)** Sum of the digits $= 7+2+0+2 = 11$,

$6+0+2+3 = 11,\ 4+0+2+5 = 11$

But, $5+0+6+1 = 12.$

Therefore, option (3) is the odd one.

3. **a.** 8351 **b.** 7253 **c.** 3467 **d.** 2648

Sol. **(d)** Except 2648, all other numbers are odd numbers.

4. **a.** 81 **b.** 69 **c.** 21 **d.** 23

Sol. **(d)** Except 23, all others are divisible by 3.

Type-II Choosing the Odd Numeral Group/ Pair: In this type of questions, certain groups/ pairs of numbers are given, out of which all except one are common or similar in some way while one is different. The candidate is required to choose the odd numeral group/ pair.

Directions: Choose the odd numeral pair/ group in each of the following questions.

5. **a.** $22-3$ **b.** $28-4$ **c.** $36-5$ **d.** $43-6$ **(e)** $50-7$

Sol. **(b)** First number ÷ Second number = Remainder 1

i.e., $\frac{22}{3}$ = Remainder (1); $\frac{36}{5}$ = Remainder (1); $\frac{43}{6}$ = Remainder (1)

But $\frac{28}{4}$ = Remainder (0)

6. **a.** $50-66$ **b.** $32-38$ **c.** $64-80$ **d.** $63-77$

Sol. **(d)** Second number = first number + 16

i.e., $66 = 50+16;\ 48 = 32+16;\ 80 = 64+16$

But $77 = 63+14$

7. **a.** 117 : 13 **b.** 162 : 18 **c.** 171 : 19 **d.** 304 : 16

Sol. **(d)** First number $= 9\times$ Second number

i.e., $117 = 9\times13;\ 162 = 9\times18;\ 171 = 9\times19$

But $304 = 19\times16$

8. **a.** 21 : 24 **b.** 28 : 32 **c.** 54 : 62 **d.** 70 : 80

Sol. **(c)** Numbers in a pair are consecutive multiples of the same number.

i.e., 21 : 24 $\Rightarrow$ consecutive multiples of 3

28 : 32 $\Rightarrow$ consecutive multiples of 4

70 : 80 $\Rightarrow$ consecutive multiples of 10

But 54: 62 $\Rightarrow$ consecutive multiples of the same number.

9. **a.** $80-9$ **b.** $64-8$ **c.** $36-6$ **d.** $7-49$

Sol. **(a)** One number = (other number)^2

i.e., $64 = (8)^2;\ 36 = (6)^2;\ 49 = (7)^2$

But $(9)^2 = 81 \neq 80$

10. Identify the odd pair out the following five pairs of numbers.

Sol. **(a)** 6, 37 **b.** 7, 50 **c.** 8, 65 **d.** 10, 99

We observe that in all the pairs except the fourth pair, the second number is 1 more than the square of the first number. But in the fourth pair, the second number is 1 less than the square of the first number. Hence, (4) is the odd pair,

III. Classification of words: Odd man out

Generally, the following type of relationships are seen in such type of questions.

- Category-based relationships
- Medium or activity based relationship
- Word meaning relationship (Synonyms, Antonyms)
- Alphabet relationship (Vowel/ Consonant relationships, Alphabet count)
- Functional relationship
- Word-consistency relationship
- Inter-relationship of words

Word-formation relationship

Multiple Choice Questions

Type I.

Directions (1 to 39): In each of the following questions, one term is wrong. Find out the wrong term.

1. 1, 2, 4, 8, 16, 32, 64, 96
a. 4 **b.** 32 **c.** 64 **d.** 96

2. 5, 10, 17, 24, 37, 50, 65.
a. 10 **b.** 17 **c.** 24 **d.** 37

3. 2, 5, 10, 17, 26, 37, 50, 64
a. 17 **b.** 26 **c.** 37 **d.** 64

4. 13, 17, 19, 23, 27, 31
a. 13 **b.** 19 **c.** 27 **d.** 31

5. 17, 18, 22, 31, 46, 72
a. 17 **b.** 18 **c.** 31 **d.** 46

6. 7, 15, 69, 149, 307
a. 15 **b.** 33 **c.** 69 **d.** 307

7. 126, 135, 144, 216, 154, 801
a. 115 **b.** 216 **c.** 154 **d.** 801

8. 76, 89, 115, 167, 271, 489
a. 115 **b.** 167 **c.** 271 **d.** 489

9. 37, 77, 79, 83, 89, 97
a. 73 **b.** 77 **c.** 79 **d.** 83

10. 2916, 972, 354, 108, 36, 12
a. 2916 **b.** 972 **c.** 354 **d.** 36

11. 24, 39, 416, 525, 636, 714
a. 39 **b.** 416 **c.** 525 **d.** 714

12. 17, 34, 51, 68, 95, 102
a. 17 **b.** 34 **c.** 51 **d.** 95

13. 11, 23, 50, 109, 234, 491
a. 50 **b.** 23 **c.** 491 **d.** 234

14. 25, 49, 121, 289, 529, 1225
a. 121 **b.** 289 **c.** 529 **d.** 1225

15. 4, 9, 25, 36, 121, 169
a. 4 **b.** 25 **c.** 36 **d.** 121

16. 11, 24, 52, 110, 228, 456
a. 11 **b.** 24 **c.** 52 **d.** 456

17. 27, 63, 123, 153, 203, 273
a. 273 **b.** 203 **c.** 123 **d.** 153

18. 9, 15, 27, 51, 101, 195
a. 9 **b.** 15 **c.** 27 **d.** 101

19. 35, 63, 105, 121, 133, 210
a. 35 **b.** 63 **c.** 105 **d.** 121

20. 517, 661, 814, 922, 1066, 1256
a. 661 **b.** 814 **c.** 1256 **d.** 922

21. **a.** 1331 **b.** 512 **c.** 343 **d.** 4913

22. **a.** 2 **b.** 65 **c.** 215 **d.** 126

23. **a.** 257 **b.** 143 **c.** 195 **d.** 224

24. **a.** 120 **b.** 168 **c.** 290 **d.** 380

25. **a.** 15 **b.** 57 **c.** 7 **d.** 31

26. **a.** 525 **b.** 339 **c.** 969 **d.** 484

27. **a.** 246 **b.** 356 **c.** 527 **d.** 639

28. **a.** 4566 **b.** 5686 **c.** 2346 **d.** 1236

29. **a.** 2259 **b.** 3418 **c.** 5106 **d.** 7890

30. **a.** 6958 **b.** 7948 **c.** 6895 **d.** 9783

31. **a.** 999 **b.** 864 **c.** 343 **d.** 678

32. **a.** 749 **b.** 981 **c.** 525 **d.** 343

33. **a.** 5229 **b.** 3425 **c.** 6048 **d.** 3645

34. 16 22 26 38 62 74 100
a. 16 **b.** 26 **c.** 62 **d.** 100

35. 6 13 24 51 98 201 408
a. 6 **b.** 13 **c.** 51 **d.** 408

36. 2 3 4 6 12 12 48 24 250
a. 4 **b.** 6 **c.** 48 **d.** 205

37. 1112 1314 1516 1718 1921 2122 2324
a. 1112 **b.** 1516 **c.** 1921 **d.** 2122

38. **a.** 166 **b.** 239 **c.** 326 **d.** 433

39. **a.** 6 **b.** 10 **c.** 14 **d.** 18

Type II

Directions (40 to 50): Choosing The odd pair of words.

40. **a.** 14, 9 **b.** 17, 8 **c.** 21, 6 **d.** 42, 3

41. **a.** (52, 142) **b.** (54, 126) **c.** (25, 168) **d.** (58, 184)

42. **a.** 2, 3, 6 **b.** 6, 1, 6 **c.** 3, 3, 9 **d.** 6, 2, 5

43. **a.** 1 (5) 2 **b.** 7 (113) 8 **c.** 2 (20) 4 **d.** 3 (17) 4

44. **a.** 3, 9, 6, 15 **b.** 6, 18, 12, 30
c. 4, 16, 12, 24 **d.** 12, 36, 24, 60

45. **a.** 71, 7, 3, 17 **b.** 67, 71, 3, 5
c. 41, 5, 3, 47 **d.** 37, 14, 19, 7

46. **a.** $0.50, 1\frac{1}{2}, 3.00, 0.25$ **b.** $\frac{1}{2}, 0.75, \frac{1}{2}, 1.00$
c. 0.5, 0.75, 1.5, 1 **d.** $1.00, 1\frac{1}{2}, 3.00, 2.00$

47. **a.** 2, 90 **b.** 89, 12 **c.** 72, 56 **d.** 30, 20

48. **a.** 334, 36 **b.** 433, 36 **c.** 822, 36 **d.** 632, 36

49. **a.** 7, 743 **b.** 6, 612 **c.** 5, 521 **d.** 4, 46

50. **a.** 1, 4, 3, 8 **b.** 2, 4, 3, 9 **c.** 3, 2, 3, 8 **d.** 5, 3, 2, 9

Type-III

Directions (51 to 57): In this case, we need to choose the odd word from the given alternatives.

51. **a.** Ultraviolet rays **b.** X-rays
c. Infrared rays **d.** Radio waves

52. **a.** Leo **b.** Equator **c.** Libra **d.** Cancer

53. **a.** Medium **b.** Average **c.** Microfilm **d.** Microbe

54. **a.** Microscope **b.** Microphone
c. Microfilm **d.** Microbe

55.
a. Iron **b.** Aluminium
c. Copper **d.** Porcelain

56. **a.** Ample **b.** Copious
c. Plentiful **d.** Abundance

57. **a.** IMF **b.** SAARC **c.** UNICEF **d.** WHO

Type-IV. Choosing The Odd Pair of Words:

Directions (58 to 60): In this type of question, certain pair of words are given, out of which the words in all the pairs except one, having a certain relationship which is common. The candidate is required to find out this relationship. Then choose the pair of word as the answer which in differently related.

58. **a.** Uncle : Nephew **b.** Mother : Daughter
c. Father : Son **d.** Uncle : Aunt

59. **a.** Ant : Industrious **b.** Jet : Fast
c. Giraffe : Tall **d.** Snail : Heavy

60. **a.** Dear :Vension **b.** Lamb : Veal
c. Cattle : Beef **d.** Swine : Pork

Type V.

Directions (61 to 99): In each of the following questions, four words have been given out of which three are alike in some manner, which the fourth one is different. Choose out the odd one.

61 **a.** Owl **b.** Crow **c.** Sparrow **d.** Bat

62. **a.** Yellow **b.** Pink **c.** Orange **d.** Green

63. **a.** Mile **b.** Metre **c.** Furlong **d.** Acre

64. **a.** Brass **b.** Iron **c.**Aluminium **d.** Zinc

65. **a.** Guava **b.** Orange **c.** Apple **d.** Lichi

66. **a.** Van **b.** Truck **c.** Cargo **d.** Trolley

67.
a. Kerosene **b.** Water **c.** Petrol **d.** LPG

68. **a.** August **b.** December **c.** July **d.** May

69.
a. Raddish **b.** Carrot **c.** Garlic **d.** Gourd

70.
a. Cheese **b.** Butter **c.** Mile **d.** Curd

71.
a. Sharpener **b.** Calculator **c.** Eraser **d.** Pencil

72.
a. Jump **b.** Walk **c.** Swim **d.**Listen

73.
a. Volume **b.** Size **c.** Large **d.** Shape

74.
a. Father **b.** Mother **c.** Aunt **d.**Cousin

75. **a.** Triangle **b.** Rectangle **c.** Circle **d.** Square

76. **a.** Chicken **b.** Snake **c.** Swan **d.** Crocodile

77. **a.** Car **b.** Scooter **c.** Helicopter **d.** Cycle

78. **a.** Seminar **b.** Semicolon
c. Semifinal **d.** Semicircle

79. **a.** Mars **b.** Sun **c.** Saturn **d.** Mercury

80. **a.** Volt **b.** Power **c.** Volume **d.** Force

81. **a.** Ear **b.** Kidney **c.** Lungs **d.** Liver

82. **a.** Kite **b.** Eagle **c.** Hawk **d.** Vulture

83. **a.** Novel **b.** Periodical **c.** Thesis **d.** Dictionary

84. **a.** Nut **b.** Plate **c.**Tyre **d.** Bangle

85. **a.** Necklace **b.** Ornament **c.** Bangle **d.** Ring

86. **a.** Curd **b.** Butter **c.** Oil **d.** Cheese

87. **a.** Pearl **b.** Diamond **c.** Ruby **d.** Garnet

88. **a.** Pistol **b.** Sword **c.** Gun **d.** Rifle

89. **a.** Carrot **b.** Potato **c.** Tomato **d.** Ginger

90. **a.** Calf **b.** Cub **c.** Piglet **d.** Hireling

91. **a.** Copper **b.** Tin **c.** Brass **d.** Platinum

92. **a.** Skull **b.** Pelvis **c.** Fibula **d.** Appendix

93. **a.** Tricycle **b.** Trident **c.**Trifle **d.** Tricolour

94. **a.** Poland **b.** Turkey **c.** Spain **d.** Sweden

95. **a.** Calendar **b.** Year **c.** Date **d.** Month

96. **a.** Geometry **b.** Algebra
c. Trigonometry **d.** Mathematics

97. **a.** Chameleon **b.** Crocodile
c. Alligator **d.** Locust

98. **a.** Gangtok **b.** Singhbhum
c. Hyderabad **d.** Madras

99. **a.** Cerebrum **b.** Cerebellum
c. Cornea **d.** Medulla

Type VI.

Direction (100 to 110): In each of the following questions, four pairs of words are given, out of which words in three pairs bear a certain common relationship. Choose the pair in which the words are differently related.

100. **a.** Hard : Soft **b.** Long : High
c. Sweet : Sour **d.** Pointed : Blunt

101. **a.** Church : Monument **b.** Pistol : Gun
c. Pond : Lake **d.** Horse : Neigh

102. **a.** Poem : Poet **b.** Film : Producer
c. Newspaper : Editor **d.** Stamps : Philatelist

103. **a.** Hard : Stone **b.** Gentle : Tender
c. Smooth : Glass **d.** Soft : Wool

104. **a.** Vulture : Prey **b.** Crow : Carrion
c. Cow : Fodder **d.** Poultry : Farm

105. **a.** Gold : ornaments **b.** Pitcher : Pottery
c. Twigs : Nest **d.** Wood : Furniture

106. **a.** Man : Garage **b.** Pig : Sty
c. Horse : Stable **d.** Cow : Shed

107. **a.** Fallacy : Illusion **b.** Chaos : Peace
c. Dissipater : Squander **d.** Presage : Predict

108. **a.** Shoe : Leather **b.** Iron : Axe
c. Jewellery : Gold **d.** Table : Wood

109. **a.** Oil : Lamp **b.** Water : Tap
c. Oxygen : Life **d.** Power : Machine

110. Coin : Mint
a. Hay : Stable **b.** Wine : Brewery
c. Grain : Field **d.** Book : Publisher

VII. Classification of Alphabet Group: Odd Man Out

Original Alphabetical Order: From Left to Right.

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

Reverse Alphabetical Order: From Right to Left.

Z	Y	X	W	V	U	T	S	R	Q	P	O	N	M
1	2	3	4	5	6	7	8	9	10	11	12	13	14

L	K	J	I	H	G	F	E	D	C	B	A
15	16	17	18	19	20	21	22	23	24	25	26

Direction (111 to 125): Choose the letter or group of letters which is different from others.

111. **a.** A **b.** E **c.** I **d.** U

112. **a.** EFG **b.** ORS **c.** XYZ **d.** ABC

113. **a.** APBQ **b.** CRDT **c.** EUFV **d.** GWHX

114. **a.** IJK, PQR **b.** DEF, UVW
c. XYZ, ABC **d.** SRQ, TUV

115. **a.** DWFU **b.** HSKP **c.** EVHS **d.** KQNN

116. **a.** EDGH **b.** GFHJ **c.** CBEF **d.** IHKL

117. **a.** EI : AO **b.** AU : EO **c.** AE : IU **d.** OU : B

118. Three of the following four pairs of alphabets and numerals have same relationship between their elements as in the case of the pair PROBLEM : 2948375 and hence form a group. Which one does not belong to the group?
a. OMEP : 4572 **b.** EROL : 7943
c. BORE : 8497 **d.** MOEP : 5972

119. **a.** BROTHER : DORVEHT **b.** ENGLISH : GGNNSIJ
c. ANOTHER : CONVEHT **d.** BETWEEN : DTEZEEP

120. **a.** DW **b.** HS **c.** MN **d.** KO

121. **a.** RAT **b.** OUT **c.** BED **d.** LOT

122. **a.** USING **b.** VTOJE **c.** UPKEA **d.** OMIDE

123. **a.** GET **b.** MET **c.** SET **d.** EAT

124. **a.** CDE **b.** IJK **c.** FGH **d.** PQR

125. **a.** DECB **b.** GDFE **c.** HKIJ **d.** JFHG

ANSWERS

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

SOLUTIONS

1. **(d)** Each term is double the preceding term, so 96 is the wrong term. It should be 128.

2. **(c)** The sequence is +5, +7, +9, etc. 24 is wrong and it should be 26.

3. **(d)** The numbers are $1^2+1, 2^2+1, 3^2+1$ and so on.

4. **(c)** This is a prime number series, 27 is not a prime number.

5. **(d)** The difference of two successive terms is 1, 4, 9, 16, 25, etc.
But difference between 31 and 46 is 15 (not sixteen). The right number should have 47.

6. **(c)** Double the number and then add 1, 3, 5 7, 9, etc. In place of 69, it should be $33\times 2+5=71$. Hence 69 is the odd man out.

7. **(c)** Sum of the digits in each number is 9 except in 154. Hence, 154 is the odd man out.

8. **(d)** The difference of two successive terms is 13, 26, 52, 104, 208. In place of 489, it should have 497. Hence 489 is the odd man out.

9. **(b)** All others are prime numbers except 77. Hence 77 is the odd man out.

10. **(c)** Each number is one-third of the next. In place of 354, it should have been 324. Hence, 354 is odd man out.

11. **(d)** Number on the left hand is squared.
Hence the last number should be 749 in place of 714. Thus 714 is the odd man out.

12. **(d)** All numbers are multiplies of 17, but 95 is not.

13. **(c)** Double the number and add 1, 4, 9, 16, 25, etc. to the result. Thus $2\times 234+25=493$.

14. **(c)** All the numbers are squares on 5, 7, 11, 17, 25, 35. Thus 625 is the right number in place of 529. Thus 529 is the odd man out.

15. **(c)** Squares on prime numbers. Hence, 36 is odd man out.

16. **(d)** The rule is 11, $11\times 2+2=24, 24\times 2+4=52$. The correct numbers should be $228\times 2+10=466$ in place of 456. Hence, 456 is the odd man out.

17. **(b)** All numbers are multiple of 3 except 203.

18. **(d)** The difference between two successive terms are 6, 12, 24, 48, 96, etc.
So its term should be 51 48 99 in place of 101.

19. **(d)** All numbers are multiples of 7 except 121.

20. **(c)** Sum of the integers in each number is 13, hence 1256 is the odd man out.

21. **(b)** Except 512, all others are cubes of odd numbers.
i.e., $1331=(11)^3; 343=7^3; 4913=(17)^3; 729=9^3$
But $512=8^3$ [$\because$ 8 is an even number]

22. **(c)** Except 215, all other are in X^3+1 pattern
i.e., $1^3+1=2;\ 4^3+1=65;\ 5^3+1=126;\ 2^3+1=9$
But $6^3-1=215$.

23. **(a)** Except 257, all other are in X^2+1 pattern
i.e., $143=12^2-1; 195=14^2-1;$
$224=15^2-1; 168=13^2-1$
But $257=16^2+1$.

24. **(d)** 380, all others are either in X^2-1

or X^2+1 pattern

i.e., $120=11^2-1;\ 168=13^2-1;$

$290=17^2+1;\ 728=27^2-1$

But $380=19^2+19$ or 20^2-20

25. **(b)** Except 57, all others are in 2^x-1 pattern i.e., $15=2^4-1;\ 7=2^3-1;\ 31=2^5-1$

But $57=2^6-7$.

26. **(b)** In all other numbers, the first and last digits are same.

27. **(b)** Sum of the first two digits = Third digit i.e.,

$246 \Rightarrow 2+4=6$

$527 \Rightarrow 5+2=7$

$639 \Rightarrow 6+3=9$

But $356 \Rightarrow 3+5=8 \neq 6$

28. **(b)** In all other numbers, First three digits = Consecutive Numerals of the number.

29. **(d)** Sum of the first three digits = Values of 4^{th} digit i.e.,

$2259 \Rightarrow 2+2+5=9$

$3418 \Rightarrow 3+4+1=8$

$5106 \Rightarrow 5+1+0=6$

$1315 \Rightarrow 1+3+1=5$

But $7890 \Rightarrow 7+8+9=24 \neq 0$

30. **(d)** Sum of the digits of the number = 28

i.e., $658 \Rightarrow 6+9+5+8=28$

$7948 \Rightarrow 7+9+4+8=28$

$6895 \Rightarrow 6+8+9+5=28$

But $9783 \Rightarrow 9+7+8+3=27$

31. **(c)** Middle digit of a number = Average of the other two digits on the extreme.

i.e., $999 \Rightarrow 9=\frac{9+2}{2}=9$

$864 \Rightarrow 6=\frac{8+4}{2}=6$

$456 \Rightarrow 5=\frac{4+6}{2}=5$

But $343 \Rightarrow 4 \neq \frac{3+3}{2}=3$

32. **(d)** Square of the first digit = Next two digits of the number

i.e., $749 \Rightarrow 7^2=49$

$981 \Rightarrow 9^2=81$

$525 \Rightarrow 5^2=25$

$864 \Rightarrow 8^2=64$

But $343 \Rightarrow 3^2=9$

33. **(c)** Sum of squares of the first two digits of the number = Next two digits of the number.

i.e., $5229 \Rightarrow 5^2+2^2=29$

$3425 \Rightarrow 3^2+4^2=25$

$3645 \Rightarrow 3^2+6^2=45$

$8064 \Rightarrow 8^2+0^2=64$

But $6048 \Rightarrow 6^2+0^2=36 \neq 48$

34. **(d)** In this question, product of digits of a term is added to the same term to get the next term.

$16+(1\times6)=16+6=22$

$22+(2\times2)=22+4=26$

$26+(2\times6)=26+12=38$

$38+(3\times8)=38+24=62$

$62+(6\times2)=62+12=74$

$74+(7\times4)=74+28=102 \neq 100$

35. **(d)** In given question following pattern is followed:

$6\times2+1=13$

$13\times2-2=24$

$24\times2+3=51$

$51\times2-4=98$

$98\times2+5=201$

$201\times2-6=396 \neq 408$

36. **(d)** In this question, two series are combined together. First, consider the terms only at odd positions and find the pattern

2 4 12 48 250

$2\times2=4$

$4\times3=12$

$12\times4=48$

$48\times5=240 \neq 250$

Now, consider terms at even positions and find the pattern.

3 6 12 24

$3\times2=6$

$6\times2=12$

$12\times2=24$

All the terms follow the same pattern. So, 250 is the wrong term.

37. **(c)** Two consecutive two-digit numbers are written side by side in all the terms except in 1921. Hence 1921 is the wrong term.

38. **(b)** Product of digits is 36 in all the cases expect in 239. In 239, the product of digits is 54.

39. **(d)** When we divide each number by 2, we get a prime quotient except in case of 18. When 18 is divided by 2, we get the quotient 9, which is not a prime number. In fact, 9 is a perfect square. Hence, 18 is the odd one.

40. **(a)** Product of the two numbers in a pair = 126
i.e., $14 \times 9 = 126; 21 \times 6 = 126; 42 \times 3 = 126$
But $17 \times 8 = 136$.

41. **(c)** Sum of the digits of both the numbers in a pair is the same.
i.e., First pair: $5 + 2 = 7; 1 + 4 + 2 = 7$
Second pair: $5 + 4 = 9; 1 + 2 + 6 = 6$
Fourth pair: $5 + 8 = 13; 1 + 8 + 4 = 13$
But third pair : $5 + 6 = 11; 1 + 6 + 8 = 15$

42. **(d)** Third number = product of the first two number
i.e., 6 2 3; 6 6 1; 9 3 3
But $6 \times 2 = 12 \neq 5$

43. **(d)** Number inside the bracket = sum of the squares of the numbers outside it
$5 = 1^2 + 2^2; 113 = 7^2 + 8^2;$
$20 = 2^2 + 4^2; 61 = 5^2 + 6^2$
But $3^2 + 4^2 = 25 \neq 17$

44. **(c)** Numbers Ratio in a group = 1 : 3 : 2 : 5
i.e., 3, 9, 6, 15
$\Rightarrow 1:3:2:5$ [Dividing by 3]
6, 18, 12, 30
$\Rightarrow 1:3:2:5$ [Dividing by 6]
12, 36, 24, 60
$\Rightarrow 1:3:2:5$ [Dividing by 12]
But 4, 16, 12, 24
$\Rightarrow 1:4:3:6$ [Dividing by 4]

45. **(d)** All numbers in a group = Prime numbers only
But in (d), there is one composite number i.e., 14.

46. **(d)** Numbers Ratio in a group = 2 : 3 : 6 : 4
i.e., $\frac{1}{2}, 0.75, 1\frac{1}{2}, 1.00$
$\Rightarrow 2 : 3 : 6 : 4$ [Dividing by 0.25]
0.4, 0.75, 15, 1
$\Rightarrow 2 : 3 : 6 : 4$ [Dividing by 0.25]
$1.00, 1\frac{1}{2}, 3.00, 2.00$
$\Rightarrow 2 : 3 : 6 : 4$ [Dividing by 0.5]
But $0.50, 1\frac{1}{2}, 3.00, 0.25$
$\Rightarrow 2 : 6 : 12 : 1$ [Dividing by 0.25]

47. **(b)** Observe the pair of numbers in (a), (c) and (d). Both the numbers in these pairs are of the form $n^2 + n$ where n is a natural number. In pair (b) only one number 12 follows this pattern $(12 = 3^2 + 3)$.
But 89 does not follow this pattern.

48. **(c)** Product of digits of the first number is equal to the second number in each of the pairs except in pair (c). Pair (c) does not follow this pattern

49. **(a)** Consider the first number of each pair. Find the cube of the number. Write the digits of this cube in the reverse order.
We get the second number in all the pairs except in pair (a).

50. **(d)** Fourth number
= Sum of the first three numbers.
i.e., $8 = 1 + 4 + 3; 9 = 2 + 4 + 3; 8 = 3 + 2 + 3$
but $5 + 3 + 2 = 10 \neq 9$.

51. **(d)** Except Radio waves, all others are short wavelength radiations. 'Radio waves' are large wavelength radiations.

52. **(b)** Except Equator, all others are Zodiac signs. The 'Equator' is an imaginary line on the earth's Surface equidistant from the North pole and South pole.

53. **(d)** Except Terrible, all others are Synonyms.

54. **(d)** Except Microbe, 'micro' is used as a prefix 'Microbe' is an organism that is microscopic (too small).

55. **(d)** Except Porcelain, all others are metallic 'Porcelain' is non-metallic.

56. **(d)** Except Abundance, all others are adjectives. 'Abundance' is a noun.

57. **(b)** Except SAARC, all others are world organisations. The South Asian Association for Regional Cooperation (SAARC) is an economic and political organisation of eight countries in Southern Asia.

58. **(d)** Option (d) is the only pair having different gender.

59. **(d)** In other pair of words, second is the characteristic feature of the first.

60. **(b)** In other pair of words, second is the flesh of the first. Lamb's flesh is mutton.

61. **(d)** Except Bat, all others are flying birds. 'Bat' is a flying mammal.

62. **(b)** Except Pink, all the other colours are seen in the rainbow.

63. **(d)** Except Acre, all others are distance measures. 'Acre' measures area.

64. **(a)** Except Brass, all others are metals. 'Brass' is an alloy.

65. **(d)** Except Lichi, all others have many seeds. 'Lichi' has only one seed.

66. **(c)** Except Cargo, all others are carriers of load. 'Cargo' means load.

67. **(b)** Except Water, all others are petroleum products used as fuel.

68. **(d)** Except May, all others are either followed or preceded by a month of 31 days.

69. **(d)** Except Gourd, all others grow beneath the ground.

70. **(c)** All others are the products made from milk.

71. **(b)** Except Calculator, all other are stationery items. A 'Calculator' is a device that is used for performing mathematical calculations.

72. **(d)** Except Listen, all the others need some movement.

73. **(c)** Except large, all others are noun. 'Large' is an adjective.

74. **(d)** Except cousin, all others belong to the same generation.

75. **(c)** Except circle, all other figures are made up of straight lines.

76. **(a)** Except chicken, all others can live in water.

77. **(d)** Except Cycle, all other run on fuel.

78. **(a)** Except Seminar, 'Semi' means 'half'. 'Seminar' is generally a form of academic instruction.

79. **(b)** Except Sun, all others are planets but 'Sun' is a star.

80. **(a)** Except Volt, all others are physical quantities. 'Volt' is the unit of measuring Potential difference.

81. **(a)** Except Ear, all others are internal organs of a body. 'Ear' is an external organ.

82. **(b)** Except Eagle, all others are scavengers. 'Eagle' is a predator.

83. **(d)** Except Dictionary, all others contain sentences and paragraphs. 'Dictionary' is a book containing a selection of the words of a language, usually arranged alphabetically.

84. **(b)** Except plate, all other items have holes.

85. **(b)** All others are different types of Ornaments.

86. **(c)** Here, all except Oil are products obtained from milk.

87. **(a)** Here, Pearl is the only gem formed inside a shell.

88. **(b)** Here, all except Sword are fire arms.

89. **(c)** Here, all except Tomato grow underground.

90. **(d)** Here, all except Hireling are young ones of animals.

91. **(c)** Here, all except Brass are metals, while brass is an alloy.

92. **(d)** Here, all except Appendix are bones, while appendix is an organ.

93. **(c)** In all except Trifle, 'tri' indicates 'three'.

94. **(b)** Here, all except Turkey are European countries, Turkey is Asian.

95. **(a)** All others are parts of a calendar.

96. **(d)** Here, all except Mathematics are branches of Mathematics.

97. **(d)** Here, all except Locust are reptiles while locust is an insect.

98. **(b)** Here, all except Singhbhum are capitals of states of India.

99. **(c)**Here, all except Cornea are parts of the brain, cornea is a part of eye.

100. **(b)** The other pair of words are antonyms of each other.

101. **(c)** The other pair of words belong to the same class.

102. **(d)** In other pair of words, first is prepared by the second. 'Philatelist' is that who collects stamps.

103. **(b)** In other pair of words, first is the property of the second.

104. **(d)** In other pair of words, first is the recipient of the second.

105. **(b)** In other pair of words, first is the material used to make the second.

106. **(a)** In other pair of words, second is the Dwelling place of the first.

107. **(b)** The other pair of words are synonyms of each other.

108. **(b)** In other pair of words, first is a product made form the second.

109. **(b)** In other pair of words, second requires the first to function.

110. **(b)** 'Coin' is synonym of 'Mint'. Similarly, 'wine' is synonym of 'Brewery'.

111. **(d)** Except U, all the other vowels are from the first half of the alphabet series.

112. **(b)** Except ORS, in all other groups, there are three consecutive letters.

113. **(b)** Except CRDT in all other groups, first and third letters, second and fourth letters are consecutive respectively in the alphabetical series.

114. **(d)** In each pair, there are two groups. Excepts SRQ, TUV in all other pairs, second group is the corresponding letters of the first group form the other end of the alphabet series in the reverse order.

115. **(a)** The pattern is as follows:

Option (b): H (−3) S (+3) KP

Option (c): E (−3) V (+3) H S

Option (d): K (−3) Q (+3) N N

But Option (a): D (−2) W (+2) F U

Therefore, option (a) is the odd group of letters.

116. **(b)** Option (a) $E \xrightarrow{-1} D \xrightarrow{+3} G \xrightarrow{+1} H$

Option (c) $C \xrightarrow{-1} B \xrightarrow{+3} E \xrightarrow{+1} F$

Option (d) $I \xrightarrow{-1} H \xrightarrow{+3} K \xrightarrow{+1} L$

But Option (b) $G \xrightarrow{-1} F \xrightarrow{+2} H \xrightarrow{+2} J$

Therefore, option (b) is the odd group of letters.

117. (d) Except OU and B in all other pair of groups, there are vowels only.

118. (d)

Letter PROBLEM

Code 2978375

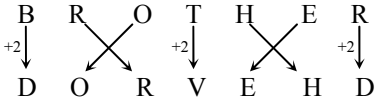
So, Letter MOEP

Code 5472

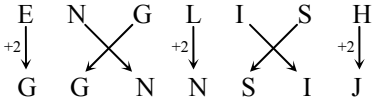
Therefore, MOEP would be coded as 5472

119. (d) In all other groups, no vowel has been repeated. ThePattern is as following:

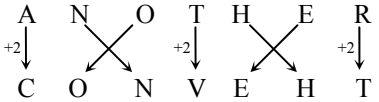
Option (a):



Option (b):

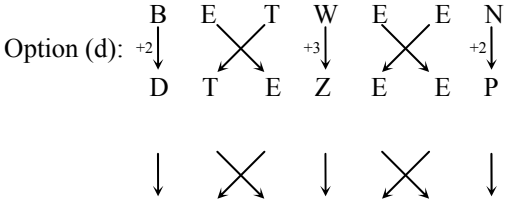


Option (c):



Therefore, option (d) is the odd one

Option (d):



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120. (d) Expect KO, in all other groups, the first letter have the same position from the beginning as the second letter from the end of the alphabet.

121. (b) This is the only group having two vowels.

122. (c) This is the only group having three vowels.

123. (d) Except EAT, all other groups end with 'ET'.

124. (d) Except PQR, all the other groups are from the first half of the alphabet series.

125. (d) Except JFHG, in all other groups, there are consecutive letters but not in order.

□ □ □