

**MENTAL ABILITY
ALPHA & NUMERIC SERIES - 1***(Answers on page 2)***NUMBER SERIES:**

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|-------------------------------------|---------|---------|---------|---------|
| 1) 34, 45, 58, 75, 94, | a) 108 | b) 103 | c) 117 | d) 124 |
| 2) 4, 23, 60, 121, 212, | a) 339 | b) 347 | c) 356 | d) 334 |
| 3) 1347, 1339, 1312, 1248, | a) 1238 | b) 1210 | c) 1123 | d) 1120 |
| 4) 9, 18, 54, 216, 1080, | a) 6140 | b) 6840 | c) 6240 | d) 6480 |
| 5) 782, 839, 898, 959, | a) 1036 | b) 1022 | c) 1025 | d) 1026 |
| 6) 2, 2, 4, 18, 136, | a) 1373 | b) 1344 | c) 1350 | d) 1357 |
| 7) 6, 12, 30, 56, 132, | a) 184 | b) 192 | c) 168 | d) 182 |
| 8) 1, 4, 27, 256, 5, 36, 343, | a) 4096 | b) 4126 | c) 4086 | d) 4116 |
| 9) 8, 9, 30, 155, 1092, | a) 9728 | b) 9942 | c) 9837 | d) 9763 |
| 10) 31, 35, 43, 50, 55, 65, | a) 75 | b) 76 | c) 79 | d) 72 |

ALPHABET SERIES:

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|-------------------------------|--------|--------|--------|--------|
| 11) C, E, I, O, W, | a) F | b) H | c) J | d) G |
| 12) D, I, P, Y, J, | a) V | b) T | c) W | d) U |
| 13) A, C, L, H, V, | a) X | b) C | c) K | d) B |
| 14) EI, IO, OU, UA, | a) EI | b) IO | c) AE | d) OU |
| 15) DX, GT, KO, PI, | a) TC | b) UD | c) WA | d) VB |
| 16) WER, SHP, OKN, KNL, | a) GQJ | b) HRK | c) FSL | d) EQM |
- 17) Which letter is 7th to the left of the letter, which 11th to the right of the letter, which is 14th to the left of Q?
- 18) Which of the following is the fourth letter to the right of third letter to the left of the sixth letter to the right from the second last element of the first half of the English alphabets?
- 19) Which letter is 6 places away to the right from the exact middle of the English alphabets, if both halves of the alphabets are (separately) reversed and these halves are interchanged after reversing?

FILL UP THE BLANKS WITH APPROPRIATE LETTERS:

- 20) a _ c a _ _ a b _ _ b _
1) b c b a c b 2) b b c c a c 3) a b b c c a 4) a c b c c b
- 21) a b _ d _ c b _ a _ c _ d _ b _
1) a c b a c a b 2) b a d c a c a 3) c d a b d c a 4) c b c d a a c

Answer Key & Explanation:

- 1) c (117) Pattern: (Differences are +11, +13, +17, +19, +23)
- 2) a (339) Pattern: (2^3-4 , 3^3-4 , 4^3-4 , 5^3-4 , 6^3-4 , 7^3-4)
- 3) c (1123) Pattern: (Differences between the number are -8, -27, -64, -125)
- 4) d (6480) Pattern: (x2, x3, x4, x5, x6)
- 5) b (1022) Pattern: (28^2-2 , 29^2-2 , 30^2-2 , 31^2-2 , 32^2-2)
- 6) c (1350) Pattern: (x2-2, x4-4, x6-6, x8-8, x10-10)
- 7) d (182) Pattern: (2^2+2 , 3^2+3 , 5^2+5 , 7^2+7 , 11^2+11 , 13^2+13)
- 8) a (4096) Pattern: (1^1 , 2^2 , 3^3 , 4^4 , 5^5 , 6^6 , 7^7 , 8^8)
- 9) c (9837) Pattern: (x1+1, x3+3, x5+5, x7+7, x9+9)
- 10) b (76) Pattern: Differences between the numbers are the sum of the digits of 'the number' just before each difference. +4, +8, +7, +5, +10, +11
(3+1) (3+5) (4+3) (5+0) (5+5) (6+5)

Letter Series:

(It is better to recall the position values of English Alphabets. A=1, B=2, C=3, D=4, E=5, F=6, G=7, H=8, I=9, J=10, X=24, Y=25, Z=26, next A=27, B=28, C=29, D=30, E=31, F=32, G=33, H=34 etc)

- 11) d (G) Pattern: Difference between the letters are (+2, +4, +6, +8, +10)
- 12) c (W) Pattern: Position values of the letters are (2^2 , 3^2 , 4^2 , 5^2 , 6^2 , 7^2)
- 13) a (X) Pattern: A(1)x3 is C(3), Cx4 is L(12), Lx5 is H(60), Hx6 is V(360), Vx7 is X(2520)
- 14) c (AE) Pattern: Pair of consecutive vowels one set (pair) after the other.
- 15) d (VB) Pattern: Consider first letters of each pair D (+3) G (+4) K (+5) P (+6) V second letters of each pair X (-4) T (-5) O (-6) I (-7) B)
- 16) a (GQJ) Pattern: Consider first letters of each set such as W (-4) S (-4) O (-4) K (-4) G, second letters of each pair E (+3) H (+3) K (+3) N (+3) Q, and third letters of each set R (-2) P (-2) N (-2) L (-2) J)
- 17) Ans: G (Look at the YouTube link for details: <https://youtu.be/T5LG-OzZ2qw>)
- 18) Ans: S
- 19) Ans: H (Start counting from the middle of the English alphabets, DO NOT start counting from the letter M)
- 20) 2 (b b c c a c) Pattern: (a b c | a b c | a b c | a b c)
- 21) 3 (c d a b d c a) Pattern: (a b c d | d c b a | a b c d | d c b a)