LETTER SERIES

Letter series consists of a series of small letters which follow a certain pattern. However, some letters are missing from the series. These missing letters are then given in a proper sequence as one of the alternatives and we have to choose that alternative.

❖ EXAMPLES ❖

Ex.1   aab __ aaa ___ bba___

    (A) baa   (B) abb   (C) bab   (D) aab

Sol.(A) We proceed step by step as shown below:

1. The first blank space should be filled in by **'b'** so that we have two a's followed by two b's.
2. The second blank space should be filled in either by 'a' so that we have four a's followed by two b's or by 'b' so that we have three a's followed by three b's.
3. The last space must be filled in by 'a'.
4. Thus, we have two possible answers : 'baa' and 'bba' . But , only 'baa' appears in the alternatives, So, the answer is (A).
5. In case, we had both the possible answers in the alternatives, we would have chosen the one that forms a more prominent pattern, which is aabb/aaabbb/aa. Thus our answer would have been 'bba'.

Ex.2   __ __ aba__ __ ba __ ab

    (A) abbba   (B) abbab

    (C) baabb   (D) bbaba

Sol.(B) The series is ab/ab/ab/ab/ab/ab

    thus the pattern ab is repeated

Ex.3   __ __ babbba__ a __ __

    (A) ababb   (B) baaab

    (C) bbaba   (D) babbb

Sol.(D)   The series is bababb/bababb

    Thus the pattern bababb is repeated

Ex.4   abca__ bcaab__ ca __ bbc __ a

    (A) ccaa   (B) bbaa

    (C) abac   (D) abba

Sol.(C) The series is abc/aabc/aabbc/aabbcc/a

Ex.5   a__ bccb__ ca __ cca __ baab __ c

    (A) ababc   (B) abcaa

    (C) accab   (D) bacaa

Sol.(A) The series is aabcc/bbcaa/ccabb/aabcc

    the letters move in a cyclic order and in each group, the first and third letters occur twice.

Ex.6   c__ bbb__ abbbb __ abbb __

    (A) aabcb   (B) abccb

    (C) abacb   (D) bacbb

Sol.(B) The series is cabbbb/cabbbb/cabbbb

    Thus , the pattern cabbbb is repeated

Ex.7   mnonopqopqrs__ __ __ __ __
   (A) mnopq   (B) oqrst
   (C) pqrst   (D) qrstu

Sol.(C) The series is mno/nopq/opqrs/<u>pqrst</u>

Ex.8   b__ b __ bb __ __ bbb __ bb __ b
   (A) bbbbba   (B) bbaaab
   (C) ababab   (D) aabaab

Sol.(C) The series is b<u>a</u>bb/bb<u>ab</u>/bbb<u>a</u>/bb<u>bb</u>. Thus in each sequence, a moves one step forward and b takes its place and finally

in the fourth sequence, it is eliminated.

Correspondence Series

This type of series consists of three sequences with three different elements (Usually capital letters, digits and small letters.) On the basis of the similarity in positions in the three sequences, a capital letter is found to correspond with a unique digit and a unique small letter, whenever it occurs. The candidate is required to trace out this correspondence and accordingly choose the elements to be filled in at the desired places.

Ex.9   In the following series, choose the alternative which contains the numerals to be filled in the marked spaces, in the correct order.

    B __ __ D __ __ C A B D A C B
    __ __ 4 1 3 2 __ __ __ ? ? ? ?
    d __ a __ b c __ c __ __ __ __ __ __

   (A) 1, 2, 3, 4   (B) 2, 3, 1, 4
   (C) 1, 2, 4, 3   (D) 2, 1, 4, 3

Sol.(A) Clearly, in the second series, 1 occurs at the same position as D occurs in the first sereis, So 1 corresponds to D. thus, the first question mark below D is to be replaced 1.

Now, in the third series, c at the eighth place corresponds to A in the first series. While c at the sixth place corresponds to 2 in the second series. So, 2 corresponds to A. Thus, the second question mark below A is to be replaced by 2 . In the third series, a at the first place corresponds to B in the first series and a at the third place corresponds to 4 in the second sereis. So, 4 corresponds to B. Thus, the question mark below B is to be replaced by 4.

Now, only 3 remains. So 3 corresponds to C. Thus, the question mark below C is to replaced by 3. Thus DACB corresponds to 1, 2, 3, 4.

Hence, the answer is (A)

❖ **EXAMPLES** ❖

Ex.10 C B _ _ D _ B A B C C B
    _ _ 1 2 4 3 _ _ ? ? ? ?
    a _ a b _ c _ b _ _ _ _ _

   (A) 3, 4, 4 3   (B) 3, 2, 2, 3
   (C) 3, 1, 1, 3   (D) 1, 4, 4, 1

Sol. **(C)** Comparing the positions of the capital letters, numbers and small letters, we find a corresponds to C and 1 corresponds to a. So, a and 1 correspond to C. b corresponds to A and

2 corresponds to b. So b and 2 correspond to A. Also, 4 corresponds to D.

So, the remaining number i.e. 3 corresponds to B. so, BCCB corresponds to 3, 1, 1, 3

Ex.11 _ A C _ B D _ C D C D
2 _ 4 1 _ 1 4 _ _ _ _
c d _ b c _ a ? ? ? ?

(A) a, b, a, b   (B) a, c, a, c

(C) c, b, c, b   (D) c, d, c, d

Sol. **(A)** Clearly, 4 corresponds to C and a corresponds to 4. So, a corresponds to C. 1 corresponds to D and b corresponds to 1. So, b corresponds to D. Thus, CDCD corresponds to a, b, a, b.

Alphabet Series

In the alphabet series we have to find the relation or the order in which the letters have been grouped together, and hence, then missing group of letters from the choice given below.

❖ EXAMPLES ❖

Ex.12 What terms will fill the blank spaces ?

Z, X, V, T, R (...), (...)

(A) O, K   (B) N,M   (C) K, S   (D) P, N

Sol. Clearly, the given series consists of alternate letters in a reverse order. So, the missing terms would be P and N.

Ex.13 What will be the next term in BDF, CFI, DHL?

(A) CJM   (B) EIM   (C) EJO   (D) EMI

Sol. Clearly, the first, second and third letters of each term are respectively moved one, two and three steps forward to obtain the corresponding letters of the next term. So, the missing term is EJO.

Hence, the answer is (C)

Ex.14 Which term comes next in the series : YEB, WFD, UHG, SKI ?

(A) QOL   (B) QGL   (C) TOL   (D) QNL

Sol. Clearly, the first letter of each term is moved two steps backward to obtain the first letter of the next term. So, the first letter of the missing term will be Q. The second letter of the first, second, third , fourth terms are respectively moved one, two, three and four steps forward to obtain the corresponding letter of the subsequent term. So, the second letter in the missing term will be O.

The third letter is alternately moved two and three steps forward to obtain the corresponding letter of the subsequent term.So, the third letter in the missing term will be L. thus, the missing term is QOL. Hence, the answer is (A)

Ex.15 Which term will replace the question mark in the series :

ABD, DGK, HMS , MTB, SBL, ?

(A) ZKW   (B) ZKU

(C) ZAB   (D) XKW

Sol. Clearly, the first letters of the first, second, third, fourth and fifth terms are moved three, four, five, six and seven steps forward respectively to obtain the first letter of the successive terms. The second letters of the first, second, third, fourth and fifth terms are moved five, six, seven, eight and nine steps forward respectively to obtain the second letter of the successive terms. The third letter of the first, second, third, fourth and fifth terms are moved seven, eight , nine,

ten and eleven steps forward respectively to obtain the third letter of the successive terms.

Thus, the missing term would be ZKW.

Hence, the answer is (A)

Ex.16 Choose the term which will continue the following sereis :

P 3 C, R 5 F, T 8 I, V 12 L ?

(A) Y 17 O   (B) X 17 M

(C) X 17 O   (D) X 16 O

Sol.   Clearly, the first letters of the terms are alternate. The sequence followed by the numbers is +2, +3, +4, ... The last letter of each term is three steps ahead of the last letter of the preceding term. Thus, the next term would be X 17 O. Hence, the answer is (C).

EXERCISE

Q.1 Y, W, U, S, Q, ?, ?
(A) N, J   (B) M, L   (C) J, R   (D) O, M

Q.2 A, B, D, G, ?
(A) M   (B) L   (C) K   (D) H

Q.3 A, C, F, H, ?, M
(A) L   (B) K   (C) J   (D) I

Q.4 Z, L, X, J, V, H, T, F, ?, ?
(A) R, D   (B) R, E   (C) S, E   (D) Q, D

Q.5 W, V, T, S, Q, P, N, M, ? , ?
(A) I, J   (B) J, I   (C) J, K   (D) K, J

Q.6 CE, GI, KM, OQ, ?
(A) TW   (B) TV   (C) SU   (D) RT

Q.7 BD, GI, LN, QS, ?
(A) TV   (B) UW   (C) WX   (D) VX

Q.8 OTE, PUF, QVG, RWH, ?
(A) SYJ   (B) TXI   (C) SXJ   (D) SXI

Q.9 ejo tyd ins xch ?
(A) nrw   (B) mrw   (C) msx   (D) nsx

Q.10 AB, DEF, HIJK, ? , STUVWX
(A) MNOPQ   (B) LMNOP
(C) LMNO   (D) QRSTU

Q.11 2Z5, 7Y7, 14X9, 23W11, 34V13, ?
(A) 27U24   (B) 47U15
(C) 45U15   (D) 47V14

Q.12 U, O, I, ?, A
(A) E   (B) C   (C) S   (D) G

Q.13 Z, U, Q, ?, L
(A) I   (B) K   (C) M   (D) N

Q.14 A, Z, X, B, V, T, C, R, ?, ?
(A) P, D   (B) E, O   (C) Q, E   (D) O, Q

Q.15 R, M, ?, F, D, ?
(A) C, B   (B) J, H   (C) B, H   (D) I, C

Q.16 Z, S, W, O, T, K, Q, G, ?
(A) N, C   (B) N, D   (C) O, C   (D) O, D

Q.17 Z, Y, X, U, T, S, P, O, N, K, ?, ?
(A) H, G   (B) H, I   (C) I, H   (D) J, I

Q.18 b e d f ? h j ? l

    (A) i m   (B) m i   (C) i n   (D) j m

Q.19 AZ, BY, CX, ?

    (A) EF   (B) GH   (C) IJ   (D) DW

Q.20 AZ, CX, FU, ?

    (A) IR   (B) IV   (C) JQ   (D) KP

Q.21 AZ, GT, MN, ?, YB

    (A) KF   (B) RX   (C) SH   (D) TS

Q.22 BF, CH, ?, HO, LT

    (A) DN   (B) EL   (C) EM   (D) FJ

Q.23 AD, EH, IL, ?, QT

    (A) LM   (B) MN   (C) MP   (D) OM

Q.24 JE, LH, OL, SQ, ?

    (A) WV   (B) WX   (C) VW   (D) XW

Q.25 DF, GJ, KM, NQ, RT, ?

    (A) UW   (B) YZ   (C) XZ   (D) UX

Q.26 cx fu ir ? ol ri

    (A) lo   (B) mn   (C) no   (D) op

Q.27 eac gce ieg ?

    (A) jhi   (B) jgi   (C) kgi   (D) khi

Q.28 CAT, FDW, IGZ, ?

    (A) KJA   (B) KTC   (C) LHD   (D) LJC

Q.29 BEH, KNQ, TWZ, ?

    (A) IJL   (B) CFI   (C) BDF   (D) ADG

Q.30 deb ijg nol ? xyv

    (A) rsp   (B) stp   (C) rsq   (D) stq

Q.31 ? siy oeu kaq gwm cri

    (A) wnc   (B) wnb   (C) vnc   (D) wmc

Q.32 QPO, SRQ, UTS, WVU, ?

    (A) XVZ   (B) ZYA   (C) YXW   (D) VWX

Directions :

In each of the following letter series, some of the letters are missing which are given in that order as one of the alternatives belows it. Choose the correct alternative.

Q.33 ab _ _ _ b _ bbaa _

    (A) abaab   (B) abbab   (C) baaab   (D) babba

Q.34 _ baa _ aab _ a _ a

    (A) aabb   (B) aaba   (C) abab   (D) baab

Q.35 aa _ ab _ _ aaa _ a

(A) aaab   (B) aabb (C) abab (D) baaa

Q.36   a _ bbc _ aab _ cca _ bbcc
(A) bacb   (B) acba (C) abba (D) caba

Q.37   ab _ aa _ bbb _ aaa _ bbba
(A) abba   (B) baab (C) aaab (D) abab

Q.38   bc _ b _ c _ b _ ccb
(A) cbcb   (B) bbcb (C) cbbc (D) bcbc

Q.39   abb _ baa _ a _ bab _ aba
(A) abba   (B) abab (C) ccac (D) aabb

Q.40   _ bbca _ bcca _ ac _ a _ cb
(A) abcba (B) acbab (C) bacab (D) bcaab

Q.41   _ bcc _ ac _ aabb _ ab _ cc
(A) aabca (B) abaca (C) bacab (D) bcaca

Q.42   ab _ aa _ caab _ c _ abb _ c
(A) bbcaa (B) bcbca   (C) cabac   (D) cbbac

Q.43   c _ baa _ aca _ cacab _ acac _ bca
(A) acbaa (B) bbcaa (C) bccab (D) cbaac

Q.44   _ aba _ cabc _ dcba _ bab _ a
(A) abdca (B) bcadc (C) abcdd   (D) cbdaa

Q.45   a _ cdaab _ cc _ daa _ bbb _ ccddd
(A) bdbda (B) bddca (C) dbbca   (D) bbdac

Q.46   a _ abbb _ ccccd _ ddccc _ bb _ ba
(A) abcda (B) abdbc (C) abdcb   (D) abcad

Q.47   _ bcdbc _ dcabd _ bcdbc _ dc _ bd
(A) aaaaa (B) ccccc (C) bbbbb   (D) ddddd

Q.48   adb _ ac _ da _ cddcb _ dbc _ cbda
(A) bccba (B) cbbaa (C) ccbba (D) bbcad

Q.49   c _ bbb _ _ abbbb _ abbb _
(A) aabcb (B) abccb (C) abacb (D) bacbb

Q.50   b _ abbc _ bbca _ bcabb _ ab
(A) acaa   (B) acba (C) cabc (D) cace

Q.51   ac _ cab _ baca _ aba _ acac
(A) aacb   (B) acbc (C) babb (D) bcbb

Q.52   _ acca _ ccca _ acccc _ aaa
(A) acca   (B) caaa (C) ccaa (D) caac

Q.53   _ bc _ _ bb _ aabc
(A) acac   (B) babc (C) abab (D) aacc

Q.54   _ baa _ aab _ a _ a

(A) aabb (B) aaba (C) abab (D) baab

Q.55 _ _ babbba _ a _ _
(A) ababb (B) baaab (C) bbaba (D) babbb

Q.56 aa _ ab _ _ aaa _ a
(A) aaab (B) aabb (C) abab (D) baaa

Q.57 a _ bbc _ aab _ cca _ bbcc
(A) bacb (B) acba (C) abba (D) caba

Q.58 ab _ aa _ bbb _ aaa _ bbba
(A) abba (B) baab (C) aaab (D) abab

Q.59 bc _ b _ c _ b _ ccb
(A) cbcb (B) bbcb (C) cbbc (D) bcbc

Q.60 _ bbca _ bcca _ ac _ a _ cb
(A) abcba (B) acbab (C) bacab (D) bcaab

Q.61 _ bcc _ ac _ aabb _ ab _ cc
(A) aabca (B) abaca (C) bacab (D) bcaca

Q.62 c _ baa _ aca _ cacab _ acac _ bca
(A) acbaa (B) bbcaa (C) bccab (D) cbaac

Q.63 _ aba _ cabc _ dcba _ bab _ a
(A) abdca (B) bcadc (C) abcdd (D) cbdaa

Q.64 aba _ baca _ ba _ bacaabac _ aca
(A) cacb (B) ccab (C) cabc (D) abcc

Q.65 ab _ bc _ c _ ba _ c
(A) baac (B) aabb (C) caab (D) aaab

Q.66 a _ ca _ bc _ bcc _ bca
(A) bbaa (B) bbab (C) aabb (D) baba

Q.67 _ aaba _ bba _ bba _ abaa _ b
(A) aabab (B) ababa (C) baaba (D) bbaba

Q.68 _ bca _ cca _ ca _ b _ c
(A) aaaaa (B) bbbab (C) aabaa (D) bbabb

Q.69 b _ ac _ cc _ cb _ ab _ ac
(A) cbaba (B) bbaac (C) abbbc (D) aabba

Q.70 abc _ d _ bc _ d _ b _ cda
(A) bacde (B) cdabe (C) dacab (D) decdb

Q.71 ba _ b _ aab _ a _ b
(A) abaa (B) abba (C) baab (D) babb

Q.72 gfe _ ig _ eii _ fei _ gf _ ii
(A) eifgi (B) figie (C) ifgie (D) ifige

Q.73 ba _ b _ aabb _ a _ _ a _ bb

(A) bbaabb   (B) ababba   (C) ababab   (D) bababa

Q.74 cab _ a _ c _ bc _ bc _ b _ ab

(A) bcbbab   (B) bcbbbc   (C) acacab   (D) cbaaac

Q.75 C _ B _ D _ A _ B B D D

2 _ _ 4 _ 3 4 _ ? ? ? ?

_ a _ c b a _ d _ _ _ _

(A) 2, 2, 1, 1   (B) 2, 2, 3, 3

(C) 3, 3, 4, 4   (D) 3, 3, 1, 1

Q.76 A _ B A C _ D _ B C D C

_ 3 _ 2 _ 1 _ 4 ? ? ? ?

d c _ _ b a c b _ _ _ _

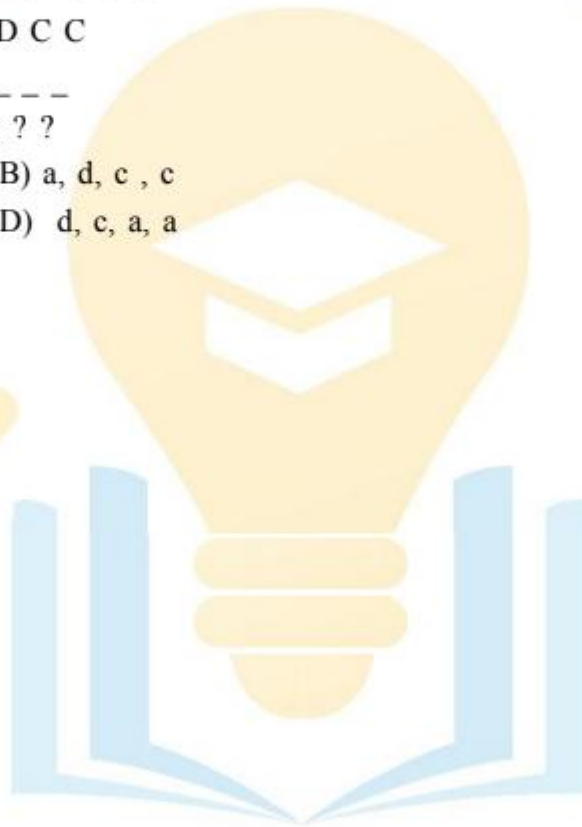(A) 1, 3, 4, 3   (B) 1, 4, 3, 4

(C) 2, 3, 4, 3   (D) 3, 4, 1, 4

Q.77 _ A D A C B _ _ B D C C

1 3 _ _ 1 2 4 2 _ _ _ _

a _ _ b _ _ c d ? ? ? ?

(A) a, c, d, d   (B) a, d, c , c

(C) c, a, d, d   (D) d, c, a, a

ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Ans.	D	C	B	A	D	C	D	D	B	A	B	A	D	A	D	A	D	A	D	C	C	C	C	D	D
Ques.	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Ans.	A	C	D	B	D	D	C	C	C	A	B	B	A	A	B	C	D	A	A	D	C	A	B	B	C
Ques.	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	A	B	A	C	D	A	B	B	A	B	C	A	A	A	C	A	A	B	D	C	B	C	B	D	D
Ques.	76	77																							
Ans.	B	D																							

HINTS & SOLUTION

12. The series consists of vowels A, E, I, O, U witten in a reverse order.

13. The first, second, third, ...letters of the series are respectively moved five, four, three ....steps forward to obtain the successive terms.

14. The first, fourth and seventh letters are in alphabetical order. So, tenth letter woud be the letter after C i.e. D.

Also, the second and third letters are laternate and in reverse order and so are the fifth and sixth letters and the eighth and ninth letters.

15. Letters are in reverse order in which from last 0, 1, 2, 3, and 4 letters are missing between two consecutive letters.

16. The given sequence consists of two series :

I. Z, W, T, Q, ? in which each letter is moved three steps backward to obtain the next term.

II. S, O, K, G in which each letter is moved four steps backward to obtain the next term.

17. The given series consists of three consecutive letters from the end, then two letters skipped, then again three consecutive letters from the end and so on.

18. The series may be divide into groups as shown:

b e d / f i h / j m l

In each group, first letter is moved two steps forward to obtain the third letter while the third letter is moved one step forward to obtain the second letter.

19. The first letter of each term is moved one step forward and the secon letter is moved one step backward to obtain the corresponding letters of the next term.

20. The first letter of the first, second, third, ...terms are respectively moved two three, four, ...steps forward to obtain the first letter of the successive term. The second letter of the first, second, third,.... terms are respectively moved two, three, four, ...steps backward to obtain the second letter of the successive terms.

21. The first letter of each term is moved six steps forward while the second letter is moved six steps backward to obtain the corresponding letters of the next term.

22. The first letter of the first, second, third,.....terms are respectively moved one, two three, steps forward while the second letters are respectively moved two, three, four, ...steps forward to obtain

the corresponding letters of the successive terms.

23. The first and second letters of each term are moved four steps forward to obtain the corresponding letters of the next term.

24. The first letter of the first, second, third, ...terms are respectively moved two, three, four, ...steps forward while the second letters of these terms are respectively moved three, four, five, ...steps forward to obtain the corresponding letters of the successive terms.

25. There is a gap of one letter between both the letters of first term,a gap of two letters between the letters of third and fourth terms respectively. Besides, the last letter of each term and the first letter of next term are in alphabetical order.

26. The first letter of each term is moved three steps forward and the second letter is moved three steps backward to obtain the corresponding letters of the next terms.

27. The first letters of the terms are alternate and so are the second and third letters.

28. All the letters of each term are moved three steps forward to obtain the corresponding letters of the next term.

29. All the letters of each term are moved nine steps forward to obtain the corresponding letters of the next term.

30. The letters in each term are moved five steps forward to obtain the corresponding letters of the next term.

31. The letters in each term are moved four steps forward to obtain the corresponding letters of the next term.

32. Each term in the series consists of three consecutive letters in reverse order, first letter of each term and the last letter of the next term are the same.

33. The series is abb/aab/aab.

    Thus, the pattern abb, aab is repeated.

34. The series is aba/aba/aba/aba.

    Thus, the pattern aba is repeated.

35. The series is aaaaba/aaaaba

    Thus, the pattern aaaaba is repeated.

36. The series is aabbcc/aabbcc/aabbcc.

    Thus, the pattern aabbcc is repeated.

37. The series is abb/aaabbb/aaaabbbb/a.

    Thus, the letters are repeated twice, then thrice, then four times and so on.

38. The series is bccb/bccb/bccb.

    Thus, the pattern bccb is repeated.

39. The series is abba/baab/abba/baab/a.

    Thus, the pattern abba, baab is repeated.

40. The series is abbc/ac/bcca/bc/caab/cb.

41. The series is bbccaa/ccaabb/aabbcc.

    The letter pairs move in a cyclic order.

42. The series is abc/aabc/aabbc/aabbcc.

    First all the letters occur, once, then a occurs twice, then both a and b occur twice and finally all the three letters appear twice.

43. The series is cab/aa/cacab/cacab/aa/cacab/ca.

    Thus, the pattern cacab, cacab, aa is repeated.

44. The series is aababcabcddcbacbabaa.

    Thus, the letters equidistant from the begining and the end of series are the same.

45. The series is abcd/aabbccdd/aaabbbcccddd.

    Thus, each letter of first sequence is repeated two times in the second sequence and three times in the third sequence.

46. The series is aaa/bbbb/cccc/dddd/cccc/bbbb/a.

47. The series is abcd/bcad/cabd/abcd/bcad/cabd.

    Thus, the pattern abcd/ bcad/ cabd is repeated twice.

48. The series is adbc acbd abcd dcba dbca cbda.

    Thus, the letters equidistant from the beginning and the end of series are the same.

49. The series is cabbbb/cabbbb/cabbbb.

    Thus, the pattern cabbbs is repeated.

50. The series is bcab/bcab/bcab/bcab/bcab.

    Thus, the pattern bcab is repeated.

51. The series is acac/abab/acac/abab/acac.

    Thus, the pattern acac, abab is repeated.

52. The series is ca/ccaa/cccaaa/ccccaaaa.

53. The series is abc/cab/bca/abc.