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UPSC CSAT DPP 08 - Reasoning

Q1 What is the value of X in the given series 91, 97, 117, 159, 231, X?
(A) 341 (B) 352
(C) 211 (D) 323

Q2 Find the next term in the given series: 8, 10, 14, 54, 196, ?
(A) 980 (B) 1000
(C) 1010 (D) 1020

Q3 What is the next term of the given series 6, 7, 18, 63, 268, ?
(A) 975 (B) 1035
(C) 1365 (D) 1555

Q4 Find the next term of the given series: 44, 52, 59, 73, 83, ?
(A) 94 (B) 93
(C) 91 (D) 89

Q5 What is the next term of the series –
WXEF, UVGH, STIJ, QRKL, ?
(A) OPMN (B) YZCD
(C) KLMN (D) IJKL

Q6 Consider the sequence ***a_b e_ _c b_d a c_e d*** that follows a certain pattern. Which of the following completes the sequence?
(A) dbdab (B) cdebe
(C) cdaeb (D) eacbd

Q7 Consider the sequence ***ABC_ _AAB_CBA_ _CCB_A_ _CBA*** that follows a certain pattern. Which of the following completes the sequence?
(A) BCCACABB (B) BBBACACB
(C) CABCAABC (D) CBCABABC

Q8 What is the next term of the series –
KAL, KEL, KIL, KOL, ?
(A) KSL (B) KUL
(C) KVL (D) KXL

Q9 Consider the following series:
ESNY, DQLU, ?, BMHM, AKFI
Find the term of the series in place of "?".
(A) COJQ (B) COJR
(C) CPKQ (D) CPKR

Q10 Consider the sequence AB_D_BC_A_CD_B_D that follows a certain pattern. Which of the following completes the sequence?
(A) CADBAC (B) CABDAC
(C) CABCAD (D) CCCCDA

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Answer Key

Q1	(A)	Q6	(C)
Q2	(C)	Q7	(D)
Q3	(C)	Q8	(B)
Q4	(A)	Q9	(A)
Q5	(A)	Q10	(A)

Hints & Solutions

Q1 Text Solution:

Ans: (a)

Explanation:

The given series is 91, 97, 117, 159, 231, X

By observing the above series,

1^{st} term of the series = a_1 = 91

2^{nd} term of the series = a_2 = 97 = 91 + 6 = 91 + (3 × 2)

3^{rd} term of the series = a_3 = 117 = 97 + 20 = 97 + (5 × 4)

4^{th} term of the series = a_4 = 159 = 117 + 42 = 117 + (7 × 6)

5^{th} term of the series = a_5 = 231 = 159 + 72 = 159 + (9 × 8)

So, the next term of the series X = 231 + (11 × 10) = 231 + 110 = 341

Hence, option (a) is correct.

Q2 Text Solution:

Ans: (c)

Explanation:

The given series is 8, 10, 14, 54, 196, ?

By observing the following pattern,

1^{st} term of the series = a_1 = 8

2^{nd} term of the series = a_2 = 10 = 8 × 1 + 1 × 2 = 8 + 2

3^{rd} term of the series = a_3 = 14 = 10 × 2 – 2 × 3 = 20 – 6

4^{th} term of the series = a_4 = 54 = 14 × 3 + 3 × 4 = 42 + 12 = 54

5^{th} term of the series = a_5 = 196 = 54 × 4 – 4 × 5 = 216 – 20

Similarly, the next term of the series = a_6 = 196 × 5 + 5 × 6 = 1010

Hence, option (c) is correct.

Q3 Text Solution:

Ans: (c)

Explanation:

The given series is 6, 7, 18, 63, 268, ?

By observing the following pattern,

1^{st} term of the series = a_1 = 6

2^{nd} term of the series = a_2 = 7 = 6 × 1 + 1^2

3^{rd} term of the series = a_3 = 18 = 7 × 2 + 2^2

4^{th} term of the series = a_4 = 63 = 18 × 3 + 3^2

5^{th} 5th term of the series = a_5 = 268 = 63 × 4 + 4^2

Similarly, the next term of the series = a_6 = 268 × 5 + 5^2 = 1365

Hence, option (c) is correct.

Q4 Text Solution:

Ans: (a)

Explanation:

The given series is 44, 52, 59, 73, 83, ?

By observing the following pattern,

1^{st} term of the series = a_1 = 44

2^{nd} term of the series = a_2 = 52 = 44 + (4 + 4)

3^{rd} term of the series = a_3 = 59 = 52 + (5 + 2)

4^{th} term of the series = a_4 = 73 = 59 + (5 + 9)

5^{th} term of the series = a_5 = 83 = 73 + (7 + 3)

So, the next term of the given series is a_6 = 83 + (8 + 3) = 94

Hence, option (a) is correct.

Q5 Text Solution:

Ans: (a)

Explanation:

The given series is WXEF, UVGH, STIJ, QRKL, ?

Now, split each word in pairs of two i.e.

WX/EF, UV/GH, ST/IJ and QR/KL

We can clearly observe that WX, UV, ST and QR are written in reverse alphabets. So the next two alphabets are OP.

Similarly, EF, GH, IJ and KL are written in alphabetical order. So, the next two alphabets are MN.

So, the next term of the series is OPMN.

Hence, option (a) is correct.

Q6 Text Solution:

Ans: (c)

Explanation:

The given sequence: a_b e_ _c b_d a c_e d

There are total 15 letters in the sequence.

Let's break this sequence into three sets of 5 alphabets each.
(i) a_b e_
(ii) _c b_d
(iii) a c_e d
By 2^{nd} and 3^{rd} we can observe that the sequence is a repetition of acbed.
Hence the complete sequence is
a**c**be**d**/**a**cb**e**d/ac**b**ed
Hence, option (c) is correct.

Q7 **Text Solution:**
Ans: (d)
Explanation:
Given sequence is : ABC_ _AAB_CBA_ _CCB_A_ _CBA
We can observe that the given sequence is repetition of ABCCBA
So the complete sequence is ABC**CB**AAB**C**CBA**AB**CCB**A**A**BC**CBA
To complete the original sequence we need to fill CBCABABC in the blanks.
Hence, option (d) is correct.

Q8 **Text Solution:**
Ans: (b)
Explanation:
The given series is KAL, KEL, KIL, KOL, ?
We can clearly observe that the first and last letter of every word is same i.e. K and L.
The middle letters are A, E, I and O, which are vowels.
The next vowel is U.
So, the next term of the series is KUL.
Hence, option (b) is correct.

Q9 **Text Solution:**
Ans: (a)
Explanation:
Logic of the given sequence is:
1^{st} letter: 1 is reduced to the position value according to alphabetical series.
2^{nd} letter: 2 is reduced to the position value according to alphabetical series.
3^{rd} letter: 2 is reduced to the position value according to alphabetical series.
4^{th} letter: 4 is reduced to the position value according to the alphabetical series.
Hence 1^{st} letter of missing term is D – 1 = C
2^{nd} letter of missing term is Q – 2 = O
3^{rd} letter of missing term = L – 2 = J
4^{th} letter of missing term is = U – 4 = Q
Hence the missing term is COJQ.
Hence, option (a) is correct.

Q10 **Text Solution:**
Ans: (a)
Explanation:
Given series is: AB_D_BC_A_CD_B_D
We can easily observe that the sequence is a repetition of ABCD.
Hence the complete sequence is:
AB**C**D**A**BC**D**A**B**CD**A**B**C**D
To complete the original sequence we need to fill CADBAC in the blanks.
Hence, option (a) is correct.