# Series

# Self – Evaluation Test

**Direction:** Replace the question mark with the correct option in each of the question from 1 to 9.

1.	<b>3, 5, 6, 11, 9, 17, 12</b> (a) 20 (c) 22 (e) None of these	(b) 10 (d) 23
2.	<b>2, 4, 7, 14, 17, 34, ?</b> (a) 36 (c) 37 (e) None of these	(b) 68 (d) 73
3.	<b>5, 7, 11,?, 35, 67</b> (a) 19 (c) 28 (e) None of these	(b) 24 (d) 32
4.	<b>3, 12, 24, 96, 192, ?</b> (a) 768 (c) 702 (e) None of these	(b) 384 (d) 298
5.	<b>24, 60, 120, 210, ?</b> (a) 300 (c) 420 (e) None of these	(b) 336 (d) 324
6.	<b>3, 8, 15, 24, ?, 48, 6</b> (a) 30 (c) 35 (e) None of these	<b>b</b> 32 (d) 36
7.	<b>4, 32, 288, ?, 31680</b> (a) 2880 (c) 1/5 (e) None of these	(b) 25600 (d) 10,000
8.	<b>18, 10, 6, 4, 3,?</b> (a) 8 (c) 3.5 (e) None of these	(b) 2 (d) 2.5
9.	<b>10, 16, 12, 20, 14?</b> (a) 20 (c) 25 (e) None of these	(b) 24 (d) 28

**Direction:** Choose the number in questions from 10 to 18 which does not follow the pattern.

10.	<b>3, 32, 363, 3993, 43</b> (a) 3903 (c) 32 (e) None of these	<b>3923</b> (b) 3 (d) 363
11.	<b>5,12,16, 24, 27</b> (a) 12 (c) 24 (e) None of these	(b) 16 (d) 27
12.	<b>72, 75, 80, 83, 84, 8</b> (a) 72 (c) 88 (e) None of these	<b>37, 88, 89</b> (b) 83 (d) 89
13.	<b>7, 11, 11, 9, 15 7, 1</b> (a) 5 (c) 1 (e) None of these	<b>9, 5, 23, 1</b> (b) 7 (d) 9
14.	<b>4, 7, 13, 25, 49, 97,</b> (a) 25 (c) 97 (F) None of these	<b>153</b> (b) 49 (d) 153
15.	<b>1, 3, 8, 19, 42, 88,</b> 1 (a) 3 (c) 19 (e) 88	(b) 8 (d) 42
16.	<b>5, 8,10, 12, 15, 18,</b> (a) 8 (c) 15 (e) 20	<b>20, 23</b> (b) 12 (d) 18
17.	<b>2, 6, 24, 96, 285, 56</b> (a) 6 (c) 96 (e) 568	5 <b>8, 567</b> (b) 24 (d) 285
18.	<b>144, 121, 100, 81, 6</b> (a) 121 (c) 81 (e) 35	54, 49, 35, 25 (b) 100 (d) 64

**Direction:** Replace the question mark with the correct option in each of the question from 19 to 35.

19.	<b>C E H J M O?</b> (a) Q (c) R (e) None of these	(b) (d)	
20.	A D E H I L M P Q T U (a) XY (c) UV (e) None of these	(b)	YZ VW
21.	<b>B F K Q?</b> (a) U (c) X (e) None of these	(b) (d)	
22.	<b>A E I M Q?</b> (a) T (c) V (e) None of these	(b) (d)	
23.	<b>X U R O L?</b> (a) J (c) H (e) None of these	(b) (d)	
24.	<b>R K F ? B</b> (a) D (c) E (e) None of these	(b) (d)	
25.	<b>A B F G K L?</b> (a) P (c) R (e) None of these	(b) (d)	
26.	<b>Z X V T?</b> (a) Q (c) R (e) None of these	(b) (d)	
27.	<b>B Y C X D W E ?</b> (a) S (c) U (e) None of these	(b) (d)	
28.	<b>AZ, CX, EV, ?</b> (a) HU (c) GT (e) None of these		GS HT

<b>29</b> .	ADG, XVT, BEH, W	US ?
	(a) VTR	(b) CFI
	(c) DFJ	(d) STU
	(e) None of these	
30.	LAZ, NEX, PIV, ?	
	(a) SLS	(b) QNS
	(c) RMT	(d) RMS
	(e) None of these	
31.	PQR, HIJ, DEF, ?	
	(a) DEF	(b) CDE
	(c) ABC	(d) BCD
	(e) None of these	
32.	ADG, GJM, MPS, ?	
	(a) SVW	(b) SVY
	(c) SUW	(d) SWY
	(e) None of these	
33.	DJT, FIU, HHV, ?	
	(a) IGX	(b) KGV
	(c) HHW	(d) JGW
	(e) None of these	
34.	NRA, PRC, RRE, TR	RG, ?
	(a) USI	(b) VR!
	(c) WRJ	(d) TRI
	(e) None of these	
35.	ZDV, XGS, VJP, ?	
	(a) SNM	(b) TMM
	(c) TNR	(d) SNT
	(e) None of these	
Direct	t <b>ion:</b> Fill in the gap with	the correct option in each of the question from $36$ to $41$ .
36.	A1, C2, 17, K8, (	)

50.	A1, C2, 17, A0, ()				
	(a) Q13	(b) P13			
	(c) Q14	(d) P14			

(c) Q14 (e) None of these

## 37. J3, D5, Y13, U43, R177, (.....)

(a) P856	(b) P891
(c) P867	(d) P869
(e) None of these	

# 38. S97, V100, Y105, B112, E123, (.....)

(a) I34	(b) J135
(c) H136	(d) K137
(e) None of these	

39.	$P_5QR, P_4QS, P_3QT$	P <sub>1</sub> QV
	(a) PQW	(b) <i>PAV</i> <sub>2</sub>
	(c) $P_2QU$	(d) $PQ_3U$
	(e) None of these	
40.	DEF, DEF <sub>2</sub> , DE <sub>2</sub> F <sub>2</sub>	<b>D<sub>2</sub>E<sub>2</sub>F</b> <sub>3</sub>
	(a) $DEF_3$	(b) <i>D</i> <sub>3</sub> <i>EF</i> <sub>3</sub>
	(c) $D_2 E_3 F$	(d) $D_2 E_2 F_2$
	(e) None of these	
41.	B <sub>2</sub> CD BCD <sub>4</sub> ,	B <sub>5</sub> CD, BC <sub>6</sub> D
	(a) $B_2C_2D$	(b) <i>BC</i> <sub>3</sub> <i>D</i>
	(c) $B_2 C_3 D$	(d) <i>BCD</i> <sub>7</sub>
	(e) None of these	
Direct	ion: Replace the questior	n mark with the

**Direction:** Replace the question mark with the correct option in each of the question from 42 to 44.

<b>42</b> .	M2, P3, U7, X13, ?	
	(a) C26	(b) C27
	(c) C28	(d) C29
	(e) None of these	

#### 43. 1A, 8C, 27F, 64J, ?

(a) 25N	(b) 625O
(c) 625P	(d) 125O
(e) None of these	

#### 44. r125,u64, y27, 8b,?

(a) f1	(b) e2
(c) f3	(b) d3
(e) None of these	

# SOLUTIONS

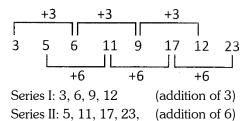
# Answer Key

<b>1.</b> D	<b>2.</b> C	<b>3.</b> A	<b>4.</b> A	<b>5.</b> B	<b>6.</b> C	<b>7.</b> A	<b>8.</b> D	<b>9.</b> B	<b>10.</b> C	<b>11</b> . C
<b>12.</b> C	<b>13</b> . C	<b>14.</b> D	<b>15.</b> E	<b>16.</b> B	<b>17.</b> B	<b>18.</b> E	<b>19.</b> C	<b>20.</b> A	<b>21.</b> C	<b>22.</b> B
<b>23.</b> D	<b>24.</b> B	<b>25.</b> A	<b>26.</b> C	<b>27.</b> D	<b>28.</b> C	<b>29.</b> A	<b>30.</b> C	<b>31.</b> D	<b>32.</b> B	<b>33.</b> D
<b>34.</b> B	<b>35.</b> B	<b>36.</b> A	<b>37.</b> B	<b>38.</b> C	<b>39.</b> C	<b>40.</b> D	<b>41.</b> B	<b>42.</b> B	<b>43.</b> D	<b>44.</b> A

## Explanation

### 1. Explanation

Option (d) is correct because there are two alternate series:



Option (c) is correct there are two alternate series:

	+5		+10		+20	)
2	4	7	14	17	34	37
	L					
		+10		+20		
Ser	ies I: 2	2, 7, 1	7, 37	,		

Series II: 4, 14, 34

#### 3. Explanation

Option (a) is correct because the pattern is - double the number minus 3 to get the next number.

#### 4. Explanation

Option (a) is correct. The sequence in the series is x 4, x 2 which is repeated.

#### 5. Explanation

Option (b) is correct. The numbers in this series are the cubes of natural numbers starting from 3 minus the number itself.

24	60	120	210	336
$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$
3 <sup>3</sup> – 3	$4^{3}-4$	5 <sup>3</sup> – 5	6 <sup>3</sup> – 6	7 <sup>3</sup> – 7
27 – 3	64 – 4	125 – 5	216 – 6	343 – 7

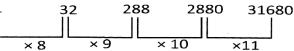
#### 6. Explanation

Option (c) is correct. The numbers in this series are the squares of number in natural order minus 1 starting from 2.  $2 \qquad 8 \qquad 15 \qquad 24 \qquad 52 \qquad 52$ 

3	8	15	24	35	48	63	
$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$		
22 – 1	32 -	1	42 – 1	52 – 1	62 – 1	72 – 1	82 – 1

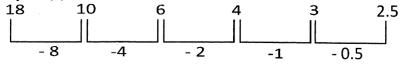
#### 7. Explanation

Option (a) is correct. The numbers in the series are multiplied by numbers in natural order starting from 8.



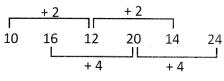
#### 8. Explanation

Option (d) is correct. The difference between the numbers is reduced by half at each step.



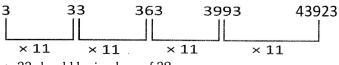
#### 9. Explanation

Option (b) is correct. There are two alternate series:



Series 1:10, 12, 14 (following +2 pattern) Series II: 16, 20, 24 (following +4 pattern)

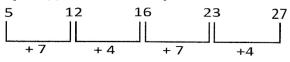
Option (c) is correct. The numbers in this series are multiplied by 11 to get the next number.



 $\therefore$  33 should be in place of 32.

#### 11. Explanation

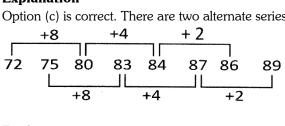
Option (c) is correct. The sequence in the series is +1, +4 which is repeated. I.e.,



 $\therefore$  23 should be in place of 24.

#### 12. Explanation

Option (c) is correct. There are two alternate series. The sequence in both the series is +8, +4, +2, i.e.,



#### 13. Explanation

Option (c) is correct. There are two alternate series;

	+4		+4		+4		+4		
7	11	11	9	15	7	19	5	23	3
	L				L				
		- 2		- 2		- 2		- 2	
Ser	ies I:	7, 11	, 15,	19, 2	1		(add	ition	of 4)
Ser	ies II:	11, 9	9, 7, 5	5, 3			(subt	ractic	on of 2)

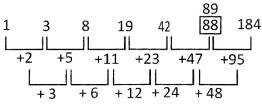
#### 14. Explanation

Option (d) is correct.

4	7	13	25	49	9	7 (193)
+3	+	6 +	12 +	-24 -	+48	+96

#### 15. Explanation

Option (e) is correct.



Hence, number 88 is wrong and should be replaced by 89.

#### 16. Explanation

Option (b) is correct.

5	8	10	13	15	18	2	0 23	
+3	3 +	2 +3	3 +	2	+3	+2	+3	

Hence number 12 is wrong and should be replaced by 13.

### 17. Explanation

Option (b) is correct.

2	6	25	96	285	568	567
×6	-6 ×	5-5 ×4	1-4 ×3	3-3 ×2	2-2 ×	1-1

Hence number 24 is wrong and should be replaced by 25.

#### 18. Explanation

Option (e) is correct.

144	121	100	81	64	49	36	25
L							
(12) <sup>2</sup>	(11) <sup>2</sup>	(10) <sup>2</sup>	(9) <sup>2</sup>	<b>(8)</b> <sup>2</sup>	$(7)^{2}$	$(6)^{2}$	(5) <sup>2</sup>

Hence, number 35 in wrong and should be replaced by 36.

#### 19. Explanation

Option (c) is correct. The letter are moved two and three steps forward alternately.

C	E	Н	J	, 1	M	0	R
				l			
+	2 -	+3	+2	+3	+2	+3	

#### 20. Explanation

Option (a) is correct because. The series is formed by moving the letter three and one steps forward alternately.

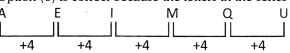
<i>'</i> ` `	D	-	Н	I	L			Q		$\sim$	Х	Y
											11	I
+3	3 +1	+3	+1	+3	+1	+3	+1	+3	+1	+3	+1	

#### 21. Explanation

Option (c) is correct. The difference between the letters in the series increases by one at each step.

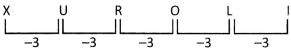


Option (b) is correct because the letters in the series are moved four steps forward.



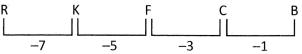
#### 23. Explanation

Option (d) is correct. The series follows the sequence of moving the letters three steps in reverse order.



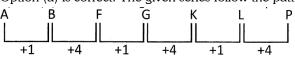
#### 24. Explanation

Option (b) is correct. The difference between the letters is reduced by two at each step.



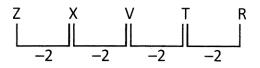
#### 25. Explanation

Option (a) is correct. The given series follow the pattern as shown below.



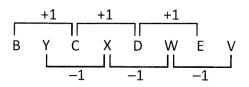
#### 26. Explanation

Option (c) is correct. The letters in this series are moved two steps backward.



#### 27. Explanation

Option (d) is correct. There are two alternate series.

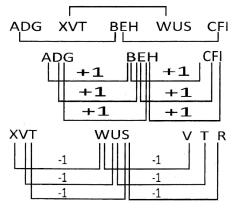


Series I: BCDE (natural order) Series II: YXWV (reverse order)

#### 28. Explanation

Option (c) is correct. The letters in each group correspond to the letters in the next group in the manner +2, -2 respectively, i.e.,

Option (a) is correct. There are two alternate series



#### 30. Explanation

Option (c) is correct. The three alphabet in one group correspond to the alphabet in the next group in the manner +2, +4, -2 respectively, i.e.,

LAZ	NE	X F	۱V	, RM	Ţ
	Ш				
+2		+2	Ш	+2	
+4		+4		+4	
-2		-2		-2	

#### 31. Explanation

Option (d) is correct. The letters in each group of alphabet are in the recession of -8, -4, -2 respectively.

PQR		HIJ		DEF		BCD
	-8		-4		-2	
T	-8		-4		-2	
	-8		-4		-2	one and the second

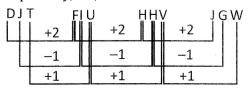
#### 32. Explanation

Option (b) is correct. The letters in each group are moved six steps forward i.e.

AD	G	GJⅣ	1	MP.	S	SVY
	+6		+6		+6	
T	+6		+6		+6	
	+6		+6		+6	

#### 33. Explanation

Option (d) is correct. The letters in one group correspond to the letters in the next group in the manner +2, -1, +1, respectively, i.e.,



#### 34. Explanation

Option (b) is correct. The first and third letters are moved two steps forwards while the middle letter remains unchanged i.e.

NRA	PRC	RRE	TRG \	/RI
+2	+	2       +2	+2	
+2	+2	2 +2	+2	

Option (b) is correct. The letters in one group correspond to the letters in the next group in the manner -2, +3, -3 respectively, i.e.,

ZD	V	XGS		VJP	TM	M
	- 2		- 2		- 2	
Τ	+3		+3		+3	
	- 3		- 3		- 3	

#### 36. Explanation

Option (a) is correct. **1st series:** A (B) C (DEFGH) I (J) K (LMNOP) Q **2nd series:** 1 (+1) 2 (+5) 7 (+1) 8 (+5) 13

#### 37. Explanation

Option (b) is correct. **1st series:** J (IHGFE) D (CBAZ) Y (XWV) U (TS) R (Q) P **2nd series:** 3(×1+2)5(×2+3) 13 (×3+4) 43 (×4+5) 177 (×5+6) 891

#### 38. Explanation

Option (c) is correct. **1st series:** S (TU) V (WX) Y (ZA) B (CD) E (FG) H **2nd series:** 97(+3) 100(+5) 105(+7) 112(+11)123 (+13)136

#### 39. Explanation

Option (c) is correct. The first two letters PQ are static. The third letter is in alphabetical order, beginning with R. The number series is in descending order beginning with 5.

#### 40. Explanation

Option (d) is correct. In this series, the letters remain the same: DEF The subscript numbers follow this series: 111, 112, 122, 222, 223, 233, 333.....

#### 41. Explanation

Option (b) is correct. Because the letters are the same, concentrate on the number series, which is simple, 2, 3, 4, 5, 6 series, and follows each letter in order.

#### 42. Explanation

Option (b) is correct. **1st series:** M (NO) P (QRST) U (VW) X (YZAB) C **2nd series:**  $2(\times 2-1)3(\times 2+1)7(\times 2-1)13(\times 2+1)27$ 

Option (d) is correct. **1st series:** 1<sup>3</sup>, 2<sup>3</sup>, 3<sup>3</sup>, 4<sup>3</sup>, 5<sup>3</sup> **2nd series:** A (B) C (DE) F (GHI) J (KLMN) O

## 44. Explanation

Option (a) is correct. **1st series:** r (st) u (vwx) y (za) b (cde) f **2nd series:**  $5^3$ ,  $4^3$ ,  $3^3$ ,  $2^3$ ,  $1^3$