A PREMIER INSTITUTE FOR BANK PO/SSC/MCA/MBA-CAT ENTRANCE ACADEMY	
MISSING SERIES –1. SOLUTION	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15. 513 495 478 462 447 433 -18 -17 -16 -15 $-1416. (a)$
2.E 1 4 12 30 68 146 304 +3 +8 +18 +38 +78 +158 -5 +10 +20 +40 +80 3.B	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	18. (c) 4 13 17 ? 30 39 1 + 9 + 4 + 9 + 4 + 9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	19. (e) 982 977 952 827 822 ? $(-(5)^{1} - (5)^{2} - (5)^{3} - (5)^{1} - (5)^{2}$
6. (d) ; 4 3 4.5 8.75 20 53 162.5 $\times 0.5+1$ $\times 1+1.5$ $\times 1.5+2$ $\times 2+2.5$ $\times 2.5+3$ $\times 3+3.5$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
7.(b) 12000 2395 474 89.8 12.96 $-2.408 - 5.4816$ +5-5 + 5-5 + 5-5 + 5-5 + 5-5 + 5-5 + 5-5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
8. (e) 1 8 28 99 412 2075 12462 $\times 1+7 \times 2+12 \times 3+15 \times 4+16 \times 5+15 \times 6+12$	$ \underbrace{ \begin{array}{c} \begin{array}{c} \\ \times 2 \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \\ \times 3 \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \\ \times 3 \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \\ \times 3 \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \\ \times 2 \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \\ \times 2 \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \\ \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \\ \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \end{array}}_{\times 2} \underbrace{ \begin{array}{c} \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} \underbrace{ \end{array}}_{\times 2} _{\times $
9. (a) 1 ² 44 216 540 1890 8505 46777.5 304053.75 $\times 3/2 \times 5/2 \times 7/2 \times 9/2 \times 11/2 \times 13/2$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
10. (e) 2222 1879 1663 1538 1474 1447 1439 -343 -216 -125 -64 -27 -8	25. (a) 474 459 429 369 .249 9 -15 -30 -60 -120 -240 26.
11. (c) 46800 7800 1560 390 130 65 $\div 6$ $\div 5$ $\div 4$ $\div 3$ $\div 2$ 12. (a)	7 33 137 553 2217 8873 $4+5 \times 4+5 \times 4+5 \times 4+5 \times 4+5$ 27. (b)
7 11 19 35 67 131 +4 +8 +16 32 +64 +64 +2 +8 +2 +16 32 +64	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
13. (d) 5 10 25 70 205 610 $4 \times 3-5 \times 3-5 \times 3-5 \times 3-5 \times 3-5 \times 3-5$ 14.	$5963 5954 5938 5913 5877 5828$ $-(3)^{2} -(4)^{2} -(5)^{2} -(6)^{2} -(7)^{2}$ 29.
	1

	8 9 20 63 256 1285 7716
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
+3 $+3$ $+3$ $+3$ $+3$ $+3$	$\times 1+1$ $\times 2+2$ $\times 3+3$ $\times 4+4$ $\times 5+5$ $\times 6+6$
30. (b) 9 15 27 45 69 99	43. (d) 1015 508 255 129 66.5 35.75 20.875
$+(6\times1)$ $+(6\times2)$ $+(6\times3)$ $+(6\times4)$ $+(6\times5)$ 31. (c)	$\frac{1}{x\frac{1}{2}+0.5} \frac{1}{x\frac{1}{2}+1} \frac{1}{x\frac{1}{2}+1.5} \frac{1}{x\frac{1}{2}+2} \frac{1}{x\frac{1}{2}+2.5} \frac{1}{x\frac{1}{2}+3}$
1 5 13 29 61 125 253	44. (a)
+4 +8 +16 +32 +64 +128	12 12 18 36 90 270 945
32. (e)	×1 ×1.5 ×2 ×2.5 ×3 ×3.5
45 57 81 117 165 225	45. (d)
+12 +24 +36 +48 +60	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
33. (b) 353 354 351 356 349 358	×1.5 ×2 ×2.5 ×3 ×3.5 ×4
353 354 351 356 349 358	46. (d)
+2 +2	7 12 40 222 1744 17390 208608
34. (a)	-1×2 -2×4 -3×6 -4×8 -5×10 -6×12
$\vec{4}$ $\vec{2}$ $\vec{4}$ $\vec{4}$ $\vec{5}$ $\vec{4}$ $\vec{2}$	47. (c)
$+\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
25. (e)	$\times 7+7^2$ $\times 6+6^2$ $\times 5+5^2$ $\times 4+4^2$ $\times 3+3^2$ $\times 2+2^2$
17 18 26 53 117 242 458	48. (e) 9050 5675 3478 2147 1418 1075 950
$\begin{array}{c} \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
36. (c)	$-(15)^3 -(13)^3 -(11)^3 -(9)^3 -(7)^3 -(5)^3$ 49. (e)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
+15 $+30$ $+45$ $+60$ $+75$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
37. (a)	50. (b)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	8424 4212 2106 1053 526.5 263.25 131.625
	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $
2 2 2 2 2 2 38. (d)	51. Option B 1st letter : $W \xrightarrow{-3} T \xrightarrow{-3} Q \xrightarrow{-3} N$
	$1 \text{ st letter} : W \longrightarrow I \longrightarrow Q \longrightarrow N$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2nd letter : $F \xrightarrow{+1} G \xrightarrow{+1} H \xrightarrow{+1} I$
	3rd letter : $B \xrightarrow{+2} D \xrightarrow{+3} G \xrightarrow{+4} K$
39. (b)	52. Option B
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1st letter : $A \xrightarrow{+6} G \xrightarrow{+6} M \xrightarrow{+6} S \xrightarrow{+6} Y$
$ \underbrace{ \left[\begin{array}{c} \\ +(6)^{3} \end{array} \right] \left[\begin{array}{c} \\ +(5)^{3} \end{array} \right] \left[\begin{array}{c} \\ +(4)^{3} \end{array} \right] \left[\begin{array}{c} \\ +(3)^{3} \end{array} \right] \left[\begin{array}{c} \\ +(2)^{3} \end{array} \right] \left[\begin{array}{c} \\ +(1)^{3} \end{array} \right] $	
40. (a)	6 6 6 -
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2nd letter : $Z \xrightarrow{-6} T \xrightarrow{-6} N \xrightarrow{-6} H \xrightarrow{-6} B$
+3 +6 +12 +24 +48 +96 41. (e)	53 Answer: Option C
980 484 236 112 50 19 3.5	53. Answer: Option C $H \xrightarrow{+1} I \xrightarrow{+2} K \xrightarrow{+3} N \xrightarrow{+4} (R)$
$ \begin{array}{c c} & & \\ \hline & +2-6 \end{array} \begin{array}{c} & +2-6 \end{array}$	
+2-6 $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$ $+2-6$	54. Option A
	The given sequence is a combination of two series:
	-



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I. Z, W, T, Q, ? and II. S, O, k, G, ? The pattern in I is : $z \xrightarrow{-3} W \xrightarrow{-3} T \xrightarrow{-3} Q \xrightarrow{-3} (N)$

The pattern in II is : $S \xrightarrow{-4} O \xrightarrow{-4} K \xrightarrow{-4} G \xrightarrow{-4} (C)$

55. Option A

The series may be divided into groups as shown: b e d / f ? h / j ? l Clearly in the first group, the second and third letters are respectively three and two steps ahead of the first letter.

A similar pattern would follow in the second and third groups. 56. Option ${\bf A}$

 $A \xrightarrow{+6} G \xrightarrow{+5} L \xrightarrow{+4} P \xrightarrow{+3} S \xrightarrow{+2} U$

57. Option **B** Explanation:

1st letter : $a \xrightarrow{+6} g \xrightarrow{+6} m \xrightarrow{+6} s \xrightarrow{+6} y$ 2nd letter : $j \xrightarrow{+6} p \xrightarrow{+6} v \xrightarrow{+6} b \xrightarrow{+6} h$

3rd letter : $s \xrightarrow{+6} y \xrightarrow{+6} e \xrightarrow{+6} k \xrightarrow{+6} q$

58. Option C

The number of letters in the terms of the given series increases by one at each step.

The first letter of each term is two steps ahead of the last letter of the preceding term.

However, each term consists of consecutive letters in order. 59. Option **C**

The given sequence is a combination of two series : I. Y,T, O and II. B, G, ?

I consists of 2nd, 7th and 12th letters from the end of the English alphabet, while

II consists of 2nd, 7th and 12th letters from the beginning of the English alphabet.

So, the missing letter in II is the 12th letter from the beginning of the English alphabet, which is L.

60. Option C

The given sequence is a combination of two series: I. C, F, I, L, O, ? and II. Z, X, V, T, ?

The pattern in I is : $C \xrightarrow{+3} F \xrightarrow{+3} I \xrightarrow{+3} L \xrightarrow{+3} O \xrightarrow{+3} (R)$

The pattern in II is : $Z \xrightarrow{-2} X \xrightarrow{-2} V \xrightarrow{-2} T \xrightarrow{-2} (R)$