

# NTSE PATTERN (TEST-1)

## CLASS -X

### MENTAL APTITUDE TEST (MAT)

Time : 120 Min.

Date : 12-06-2018

Max. Marks : 100

#### GENERAL INSTRUCTIONS

1. The booklet given in the examination hall is the Question Paper.
2. A student has to write his/her answers in the OMR sheet by darkening the appropriate bubble with the help of HB Pencil as the correct answer(s) of the question attempted.
3. **The question paper contains 100 questions. Each carries one mark.**
4. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.
5. Write your **Name & Roll No.** in the space provided in the bottom of this booklet.
6. **There is no negative marking.** Do not spend too much time on a particular question.
7. Before answering the paper, fill up the required details in the blank space provided in the answer sheet.
8. In case of any dispute, the answer sheet available with the institute shall be final.

NAME OF THE CANDIDATE : .....ROLL NO. : .....

I have read all the instructions  
and shall abide by them

I have verified the identity, name and roll number  
of the candidate.

-----  
Signature of the Candidate

-----  
Signature of the Invigilator

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# MENTAL ABILITY TEST (MAT)

## Straight Objective

This section contains 50 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

- Arrange the given words in the order they occur in dictionary.  
**1. SIGN                      2. SOLID                      3. SCENE                      4. SIMPLE**  
 (A) 3, 1, 2, 4                      (B) 3, 1, 4, 2                      (C) 3, 4, 1, 2                      (D) 3, 4, 2, 1
- From the word INACTIVE, how many independent words can be made without changing the order of the letters and using each letter only once ?  
 (A) One                      (B) Two                      (C) Three                      (D) More than three
- How many such pairs of letters are there in the word 'ADVERTISEMENT', which have as many letters between them in the word as in the alphabets ?  
 (A) 3                      (B) 4                      (C) 5                      (D) More than five

**Directions : (4) Arrange the following group such that when arranged in a specific order, meaningful word is formed.**

- T L E M N A**  
**1 2 3 4 5 6**  
 (A) 2,6,4,5,3,1                      (B) 3,2,4,6,5,1                      (C) 4,3,5,1,6,2                      (D) 5,3,2,4,6,1
- How many pairs of letters are there in the word, 'CONCLUSION' which have as many letters between them in the word as in alphabet ?  
 (A) two                      (B) Three                      (C) Five                      (D) More than five
- If every even letter beginning from **B** is replaced by odd number beginning with **3**, which letter/number will be the third to the right of the tenth number/ letter counting from your right ?  
 (A) M                      (B) S                      (C) 21                      (D) 23

**Directions : (7) Arrange the following group such that when arranged in a specific order, meaningful word is formed.**

- D I F E R N**  
**1 2 3 4 5 6**  
 (A) 1,4,3,6,2,5                      (B) 6,4,3,5,2,1                      (C) 3,5,2,4,6,1                      (D) 5,4,3,2,6,1
- If the positions of the first and sixth letters of the word 'BENEFICIAL' are interchanged; similarly the positions of the second and seventh letters are interchanged and so on, which letter will be third from the right end after rearrangement ?  
 (A) C                      (B) E                      (C) F                      (D) N
- How many pair of letters are there in the word **REPURCUSSION** which have as many letters between them in the word as in the alphabet.  
 (A) Three                      (B) One                      (C) Two                      (D) Seven

**Directions : (10) In each of the following questions, find which one word can be made from the letters of the given word.**

- MEASUREMENT**  
 (A) MASTER                      (B) MANTLE                      (C) SUMMIT                      (D) ASSURE
- If the first and the fifth letters in the word 'ORDINARY' are interchanged, the second and the sixth, the third and the seventh and so on what will be the fifth letter from the right end after rearrangement ?  
 (A) R                      (B) I                      (C) Y                      (D) N
- How many pairs of letters are there in the word, '**EXPERIENCED**' which have as many letters between them in the word as in alphabet ?  
 (A) One                      (B) There                      (C) Four                      (D) More than four

13. If the alphabets were written in the reverse order, which letter will be the fifth letter to the left of the fourteenth letter from the left.  
 (A) R (B) I (C) S (D) H
14. How many pairs of letters are there in the word 'CLANGOUR' which have as many letters between them in the word as in the alphabet ?  
 (A) One (B) Two (C) Three (D) None of these
15. If MAT = 32  
 BIG = 0  
 Then what is the value of FOR?  
 (A) 4 (B) 6 (C) 8 (D) 9
16. A meaningful word starting with **A** is made from the first, the second, the fourth, the fifth and sixth letters of the word **CONTRACT**, which of the following is the middle letter of the word ?  
 (A) C (B) T (C) O (D) R
17. If the alphabet series is written in the reverse order, which letter will be 12th to the left of the 16th letter from your left ?  
 (A) X (B) W (C) D (D) V
18. If PET = 4  
 LET = 3  
 JEY = 2  
 Then what is the value of XET?  
 (A) 1 (B) 5 (C) 6 (D) 8

**Directions : (19) Arrange the following group such that when arranged in a specific order, meaningful word is formed.**

19. **R M N B U E**  
**1 2 3 4 5 6**  
 (A) 1,5,4,2,6,3 (B) 2,6,3,4,1,5 (C) 3,5,2,4,6,1 (D) 4,6,3,2,1,5
20. Number of letters skipped in between adjacent letters in the series is in the order of  $1^2$ ,  $2^2$ ,  $3^2$ . Which of the following series observes the rule given above ?  
 (A) EGLV (B) GINQ (C) GINR (D) TVYB
21. In a coded language NUMBER is written as in MFNYVI. Then FIGURE may be written in coded language as  
 (A) ERHFID (B) URTVSF (C) GJTFSF (D) URTFIV
22. Number of letters skipped in between adjacent letters in the series are multiples of three. Which of the following series observes this rule ?  
 (A) AELPZ (B) GKOTZ (C) LORUX (D) DHLPU
23. How many pairs of letters in the word 'BRIGHTER' have as many letters between them in the word as in the alphabet ?  
 (A) 2 (B) 3 (C) 4 (D) more than 4
24. If in a certain code, STUDENT is written as RSTEDMS, then how would TEACHER be written in the same code ?  
 (A) SZZDGEQ (B) SZDDGEQ (C) SDZGDQ (D) SDZCGDQ

**Directions : (25) Arrange the following group such that when arranged in a specific order, meaningful word is formed.**

25. **T R I F U**  
**1 2 3 4 5**  
 (A) 3,1, 2, 4, 5 (B) 4, 2, 5, 3, 1 (C) 4, 3, 2, 1, 5 (D) 5, 3, 2, 1, 4
26. If in the alphabet series the first and the second letters interchanges their positions and similarly the third and the fourth letters, the fifth and the sixth letters and so on, which letter will be the seventeenth from your right ?  
 (A) F (B) H (C) J (D) None of these

**Direction (27 -34) :** In the following questions some capital alphabets are written in a row, below them their coding has been given. Now in questions a particular word has been coded in a particular manner using codes as given below the capital letters. You have to understand the pattern of coding and have to answer the question asked subsequently.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
u	a	2	v	b	w	3	t	4	x	s	y	5	z	6	c	d	8	7	e	r	h	9	i	p	q

27. If DASH is 2 a 8 4, then SMASH is  
(A) 7 5 U 7 t (B) e y a 8 4 (C) 8 z q e 3 (D) 8 z q e 4
28. If BAFFLE is aat4cx, then DANGER is  
(A) vacx49 (B) vacxh9 (C) vacxhi (D) vacxhr
29. If FASHION is z64t7uw, then POSITION is  
(A) z64e476c (B) z64e47c6 (C) c674e46z (D) c674e4z6
30. If MAIDEN is u5v4zb, then DANGER is  
(A) vuz3b8 (B) 8b3zuv (C) uv3z8b (D) uv3zb8
31. If DEER is vw8 and TOSS is to e6e, then DOTT is  
(A) v6r (B) bce (C) bcr (D) vr6
32. If MAIDEN is yux2b6, then FIBRES is  
(A) b428w8 (B) b4288w (C) b42dbe (D) b42bde
33. If MAY is yzqaiq, then TIE is  
(A) 7rtxwv (B) 7rtxvw (C) 7rtxbw (D) 7rtxwb
34. If LONDON is 5c62z5, then EUROPE is  
(A) wh7cdw (B) wh7z6v (C) br76cb (D) wh76cb
35. If **TEACHER** and **HIGHLY** are written as **X W P B R W M** and **Q S N R D Z** respectively, how will you code the word **CHARITY** ?  
(A) B P R N S B Z (B) B R P M S Z B (C) B R P M S D Z (D) B R P M S X Z
36. 15, 34, 71, 134, 223, 350  
(A) 71 (B) 134 (C) 223 (D) 350
37. If **rain** is called **water**, **water** is called **air**, **air** is called **sky**, **sky** is called **sea**, **sea** is called road, where do the aeroplane fly ?  
(A) Water (B) Road (C) Sea (D) sky
38. In a code language **157** means **mother always lovable**, **619** means **always happy future** and **952** means **mother very happy** then what does the word **future** stand for in the same language ?  
(A) 9 (B) 6 (C) 1 (D) Can not be determined
39. **Student** is called **Saint**, **Saint** is called **Thief**, **Thief** is called **Politician**, **Politician** is called **Duffer**, **Duffer** is called **Head**, then tell who does the job of robbery during day and night ?  
(A) Saint (B) Thief (C) Duffer (D) Politician
40. ZYX, BAZ, DCB, FED, ?  
(A) GHF (B) FGH (C) FFG (D) HGF
41. In a certain language, **pre not biz** means **smoking is harmful**, **vog dor not** means **avoid harmful habit** and **dor biz yel** means **please avoid smoking**. Which of the following does mean **habit** in that language ?  
(A) vog (B) not (C) dor (D) Cannot be determined
42. 2, 12, 36, 80, 150, ?  
(A) 194 (B) 210 (C) 252 (D) 258
43. If **water** is called **food**, **food** is called **tree**, **tree** is called **sky**, **sky** is called **wall**, on which of the following grows a **fruit** ?  
(A) Water (B) Food (C) Sky (D) Tree

44. In a certain code **253** means **Books are old**, **546** means **old man gold** and **378** means **Books and pen**. What stand for **are** in that code ?  
 (A) 3 (B) 2 (C) 5 (D) 6

**Directions: (45) Find the missing number.**

45. 55, 210, ?, 820, 1275  
 (A) 465 (B) 420 (C) 410 (D) 515
46. In a code **A** is denoted by **B**, **B** by **C**, **C** by **D**, and so on till **V** then **FRACTIONS** is denoted in the same code by—  
 (A) GSBDOJJPOT (B) GSBDOJJPOT (C) GSBDOJJPQT (D) GSBDOJJOPT
47. If **TRAIN** is coded as **RPYGL** the code for **SCOOTER** would be  
 (A) QAMMRCP (B) QBNNRCP (C) QAMMSBP (D) QBNNBP
48. 16, 54, 195, ?  
 (A) 780 (B) 802 (C) 816 (D) 824

Direction (46 -50) : Based on the following code and key scheme, code and decode letter/words in quest

Code:	H	L	M	Q	U	A	T	Y	S	H	R	I	N
Key:	a	c	d	b	e	f	h	i	j	z	y	o	p

49. QUALITY  
 (A) bcgeohr (B) befgoih (C) befcoih (D) befcohi
50. QUART  
 (A) befih (B) cfgzi (C) befyi (D) defyh
51. SHRIMAN  
 (A) jzyodfp (B) jzyodhp (C) jzyoefg (D) jzyoegi
52. THIS  
 (A) hpoq (B) hzoj (C) hzij (D) hzoi

**Directions (53 to 70) Find the missing term.**

53. 6, 15, 35, 77, 143, ?  
 (A) 171 (B) 181 (C) 191 (D) 221
54. 4, 10, 22, 46, ?  
 (A) 56 (B) 66 (C) 76 (D) 94
55. 2, 10, 30, 68, 130, ?  
 (A) 194 (B) 210 (C) 222 (D) 258
56. 0, 2, 2, 3, 3, 5, 8, 4, 10, ?, 5, 17  
 (A) 6 (B) 7 (C) 9 (D) 15
57. 8, 15, 28, 53, ?  
 (A) 120 (B) 106 (C) 104 (D) 102
58. 445, 221, 109, 53, 25, 11, ?  
 (A) 2 (B) 4 (C) 6 (D) 8
59. 444, 300, 200, 136, ?, 84, 80  
 (A) 300 (B) 200 (C) 85 (D) 100
60. 7, 15, 28, 59, 114, ?  
 (A) 243 (B) 233 (C) 213 (D) 223
61. 25, 49, 89, 145, 217, ?  
 (A) 305 (B) 327 (C) 309 (D) 303

62. Z 15 A, W 13 C, ?, Q 9 G, N 7 I  
(A) T 12 E (B) R 11 F (C) T 11 E (D) R 13 D
63. 2, 5, 7, 12, 19, 31, ?  
(A) 41 (B) 50 (C) 60 (D) 71
64. 1, 4, 2, 8, 6, 24, 22, 88, ?  
(A) 86 (B) 90 (C) 154 (D) 352
65. CFIJ, RUXY, EHKL, PSVW, ?  
(A) HILM (B) UXZA (C) YBEF (D) GJNM
66. 5, 8, 14, 26, 50, ?  
(A) 60 (B) 98 (C) 68 (D) 78
67. 990, 720, 504, ?, 210  
(A) 316 (B) 330 (C) 336 (D) 356
68. AD 17 39 CF  
BP 258 108 HJ  
GN ? ? LM  
(A) 203, 181 (B) 179, 239 (C) 18, 210 (D) 9, 29
69. 1, 13, ? 13, 13, 13, 19  
(A) 1 (B) 13 (C) 7 (D) 21
70. 8, 15, 29, 57, ?  
(A) 106 (B) 98 (C) 100 (D) 113

**Directions : (71) given below are based on the letter series, In each of these series, some letters are missing. Select the correct alternative. If more than five letters are missing, select the last five letters of the series.**

71. -- r - ttp -- s - tp --- s ---  
(A) rstqp (B) tsrqp (C) rstpq (D) None

**Directions (72 to 73) Find the missing term.**

72. 2, 3, 6, 18, ?, 1944  
(A) 154 (B) 180 (C) 108 (D) 452
73. 29, 34, 32, 37, 35, ?  
(A) 40 (B) 39 (C) 36 (D) 42

**Directions : (74) given below are based on the letter series, In each of these series, some letters are missing. Select the correct alternative. If more than five letters are missing, select the last five letters of the series.**

74. ab\_\_\_\_\_d\_a\_\_\_\_\_  
(a) dabce (b) eabcd (c) edcba (d) cdeab

**Directions (75 to 77) Find the missing term.**

75. 5, 7, ?, 9, 7, 11, 8, 13  
(A) 8 (B) 6 (C) 19 (D) 7
76. 4, 8, 12, 24, 36, 72, ....  
(A) 108 (B) 98 (C) 92 (D) 96
77. 1, 2, 3, 5, 7, ....  
(A) 8 (B) 9 (C) 10 (D) 13

**Directions : (78) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?**

78. m \_ l \_ ml \_ m \_ llm  
(A) lmmm (B) lmlm (C) lmml (D) mllm

**Direction (79 to 86) Find the missing term.**

79. 3, 7, 15, ?, 63, 127, 255  
(A) 15 (B) 31 (C) 63 (D) 127
80. A3P, C5N, E8K, G12G, ?  
(A) I16D (B) I17B (C) I17D (D) J16B
81. BYDW, FUHS, JQLO, NMPK, ?  
(A) RITG (B) RJGH (C) IRGT (D) HPIN
82. BYCXA, EVFUD, HSIRG, KPLOJ, ?  
(A) MNLOL (B) NMOLM (C) QJRIP (D) PKQJO
83. UTRQU, QPNMT, MLJIS, IHFER, ?  
(A) EDCAQ (B) EDBAQ (C) IHFGP (D) KJHGP
84. ?, CAFH, YWBD, USXZ, QOTV  
(A) GELJ (B) INLN (C) GEJL (D) PSNP
85. AYBX, EUFT, IQJP, MMNL, ?  
(A) QIRH (B) NLOK (C) GSHR (D) PJQI
86. PQMN, NOKL, LMIJ, ?, HIEF  
(A) KLHI (B) MNJK (C) GHIJ (D) JKGH

**Directions : (87) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?**

87. – aabb – abb – – b  
(A) baab (B) abba (C) baaa (D) bbaa

**Direction (88) Find the missing term.**

88. HZF, IWH, KSJ, NNL, ?  
(A) SHM (B) RHN (C) THN (D) RGM

**Directions : (89-90) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?**

89. – a a b b – a – a b – b  
(A) b b a a (B) b a b a (C) b a a b (D) a b a b
90. a a b – a a a – b b a –  
(A) b a a (B) a b b (C) b a b (D) a a b

**Direction (88) Find the missing term.**

91. (ABC) – 6, (DEF) – 15, (GHI) – 24, ?  
(A) (KLM) – 34 (B) (JKM) – 33 (C) (LKJ) – 33 (D) (JKL) – 33

**Directions : (92-93) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?**

92. b a b b b – b – b – b b  
(A) b b a (B) a b b (C) a b a (D) a a a
93. a – b c a b – c a b c – a a b – a b – c  
(A) a b c c b (B) c a c b c (C) a a b c b (D) a a b a c

**Direction (94) Find the missing term.**

94. C4X, F9U, I16R, ?  
(A) K25P (B) L25P (C) L25O (D) L27P

**Directions : (95) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?**

95. \_ei\_u\_e\_ou  
(A) auoi (B) aiou (C) aoai (D) oaie

**96. Find the missing numbers.**

Q1F, S2E, U6D, W21C, ?

(A) Y66B

(B) Y44B

(C) Y88B

(D) Z88B

**Directions :** (97-100) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?

**97.** cab\_a\_c\_bc\_bc\_b

(A) bcbba

(B) bcbbc

(C) acaca

(D) cbaaa

**98.** \_ha\_hach\_c\_

(A) ccaha

(B) achac

(C) chaaa

(D) aaach

**99.** cb\_ab\_cb\_a\_cc\_a

(A) aacbb

(B) acabb

(C) abacb

(D) ababc

**100.** ba—cb—b—bab—

(A) acbb

(B) bcaa

(C) cabb

(D) bacc

Space for Rough Work



DATE : 12-06-2018

## HINTS & SOLUTIONS

### MAT Answer-key

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	B	B	D	C	D	C	C	D	D	A	C	D	A	D	D
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	B	B	C	C	A	D	A	B	C	B	D	C	A	A	C
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	A	C	B	B	D	B	C	B	D	D	A	C	C	B	A
Ques.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	A	A	D	D	D	A	B	D	D	C	D	D	B	D	B
Ques.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	A	C	B	A	C	B	C	A	C	D	C	C	A	D	B
Ques.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	A	C	B	B	B	A	B	B	C	A	D	C	B	D	A
Ques.	91	92	93	94	95	96	97	98	99	100					
Ans.	D	C	A	C	C	C	D	A	B	D					

3. Letter in the given word Letter in the alphabet  
 I. DVERTI DEFGHI  
 II. ISEME IHGFE  
 III. DVERTISEMEN DEFGHIJKLMN  
 IV. RTISEM RQPONM  
 V. TISEMEN TSRQPON  
 VI. ISEMEN IJKLMN
4. (C) The given letter, when arranged in the order 4,3,5,1,6,2. Form the word **MENTAL**.
6. As per the question the new series is  
 A 3 C 5 E 7 G 9 I 11 K 13 M 15 O 17 Q 19 S **21** U 23 W 25 Y 27  
 Counting from the right, the tenth character is **Q**. The third character to the right of **Q** is **21**.
7. (C) The given letter, when arranged in the order 3,5,2,4,6,1. Form the word **FRIEND**.
8. The new letter sequence is **ICIALBENEF**  
 The third letter from the right is **N**.
9. REPURCUSSION → PR, RP, SU, RU, ON, OR, IP
10. The word **MEASUREMENT** contains all the letters of the word **MASTER**. So, the word **MASTER** can be formed.

11. N A R Y O R D I  
 $\downarrow$   
5<sup>th</sup>
12. EXPERIENCED  $\rightarrow$  DE, DI, EI, CE
13. Z Y X W V U T S R Q P O N M L K J I H G F E D C B A  
 $\downarrow$   
5<sup>th</sup>
14. CLANGOUR  $\rightarrow$  CG, LN, LR, NR, AC
15. M A T = 32  
13 - 1 + 20  
B I G = O  
2 - 9 + 7  
F O R = 9  
6 - 15 + 18
16. C, O, T, R, A  
 $\Rightarrow$  ACTOR
18. P E T = 4                      L C T = 3,                      X E T = 6,                      J E Y = 2  
 $(16 \times 5) \div 20$                        $(12 \times 5) \div 20$                        $(24 \times 5) \div 20$                        $(10 \times 5) \div 25$
19. (C) The given letter, when arranged in the order 3,5,2,4,6,1. Form the word **NUMBER**.
20. E F G H I J K L M N O P Q R S T U V  
1                      4                      9  
 $(1)^2$                        $(2)^2$                        $(3)^3$
21. 14    21    13    2    5    18  
N    U    M    B    E    R  
 $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$   
M    F    N    Y    V    I  
  
F    I    G    U    R    E  
 $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$   
U    R    T    F    I    V                      Ans. (D)
23. 2    18    9    7    8    20    5    18  
B    R    I    G    H    T    E    R                       $\rightarrow$  GH, RT, EI.
24. S    T    U    D    E    N    T                      R    S    T    E    D    M    S  
 $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$                        $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$      $\downarrow$   
-1    -1    -1    -1    -1    -1    -1                      +1    -1    -1    -1    -1  
TEACHER  $\rightarrow$  SDZDGDQ
25. (B) The given letter, when arranged in the order 4, 2, 5, 3, 1. Form the word **FRUIT**.

26. B A D C F E H G J I L K N M P O R Q T S V U X W Z Y

↓  
17<sup>th</sup>

42. 
$$\begin{array}{ccccccc} 2, & 12, & 36, & 80, & 150, & \boxed{252} \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \\ 10 & 24 & 44 & 70 & 102 & \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \\ 14 & 20 & 26 & 32 & & \end{array}$$

45. 
$$\begin{array}{ccccccc} 55, & 210, & 465, & 820, & 1275 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 155 & 255 & 355 & 455 & \end{array}$$

46. F R A C T I O N S  
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓  
G S B D U J P O T

48. 
$$\begin{array}{ccccccc} 16, & 54, & 195, & 824 \\ \times 2+22 & \times 3+33 & \times 4+44 & \end{array}$$

57. 
$$\begin{array}{ccccccc} 8, & 15, & 28, & 53, & 102 \\ \times 2-1 & \times 2-2 & \times 2-3 & \times 2-4 & \end{array}$$

58. 
$$\begin{array}{ccccccc} 445, & 221, & 109, & 53, & 25, & 11, & 4 \\ -3 \div 2 & -3 \div 2 & -3 \div 2 & -3 \div 2 & -3 \div 2 & -3 \div 2 & \end{array}$$

59. 
$$\begin{array}{ccccccc} 444, & 300, & 200, & 136, & \boxed{87}, & 84, & 80 \\ -144 & -100 & -64 & -36 & & & \end{array}$$

60. 
$$\begin{array}{ccccccc} 7, & 15, & 28, & 59, & 144, & 233 \\ \times 2+1 & \times 2-2 & \times 2+3 & \times 2-4 & \times 2+5 & \end{array}$$

61. 
$$\begin{array}{ccccccc} 25, & 49, & 89, & 145, & 217, & \boxed{305} \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \\ 24 & 40 & 56 & 72 & 88 & \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \\ +16 & +16 & +16 & +16 & & \end{array}$$

63. (B)  $2 + 5 = 7$   
 $5 + 7 = 12$   
 $7 + 12 = 19$

64. 
$$\begin{array}{ccccccc} 1, & 4, & 2, & 8, & 6, & 24, & 22, & 88, & 86 \\ \times 4 & -2 & \times 4 & -2 & \times 4 & -2 & \times 4 & -2 & \end{array}$$

66. (B)  $\times 2-2, \times 2-2, \dots$

68. (A)  $AD = A + D^2$   
 $= 1 + 4^2 = 17$   
Similarly  
 $BP = 2 + 16^2 = 168$   
 $GN = 7 + 14^2 = 203$   
 $CF = 3 + 6^2 = 39$   
 $HJ = 8 + 10^2 = 108$   
 $LM = 12 + 13^2 = 181$

69. (C) The given series consist of two series  
 $1, \underline{7}, 13, \dots$  &  $13, 13, 13, \dots$

71. (C) The series is (श्रेंणी है)  $pqr_{st}/tpq_{rs}/stp_{qr}/rst_{pq}$   
Thus the last five letters are (अन्तिम पाँच अक्षर) -  $rstpq$ .
72. The third term of the series is obtained by multiplying the first and second term. Fourth term is obtained by multiplying the second and third term and so on.  
 $\therefore$  missing number =  $6 \times 18 = 108$ .
74. (D)  $abcde/bcdea/cdeab/d \dots$  The repetitive block is  $abcde$ . In each repetitive block the first letter is taken to the end of the block.
75. (B) There are two alternate series 5, 6, 7, 8 and 7, 9, 11, 13. Therefore, the missing number will be 6.
76. (A) Series proceeds with a difference of 4, 4, 12, 12, 36, 36. Hence, the missing number is 108.
79. 
$$\begin{array}{ccccccc} 3 & 7 & 15 & \boxed{27} & 63 & 127 & 255 \\ \hline & (\times 2)+1 & (\times 2)+1 & (\times 2)+1 & (\times 2)+1 & (\times 2)+1 & (\times 2)+1 \end{array}$$
  
 $\therefore$  27 must be replaced by 31.  
 $\therefore$  27 is wrong term.
87. (C)  $baab / baab / baab$
89. The series is  $aaabbb / aaabbb$ . So, pattern **aaabbb** is repeated.
90. The series is  $aabbba / aabbba$ . So, pattern **aabbba** is repeated.
92. The series is  $babb / babb / babb$ . So, pattern **babb** is repeated.
93. (A)  $a a b c / a b b c / a b c c / a a b c / a b b c$
97.  $cab / cab / cab / cab / cab$
98. (A) Given series is :  
 $c h a / c h a / c h a / c h a$   
Hence, the answer is **c c a h a**.
99. (B) Given series is :  
 $c b a / a b c / c b a / a b c / c b a$   
Hence, the answer is **a c a b b**.
100. (D) The series is (श्रेंणी है)  $b a b c / b a b c / b a b c$