

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	I have verified the identity, name and roll number
and shall abide by them	of the candidate.
Signature of the Candidate	Signature of the Invigilator

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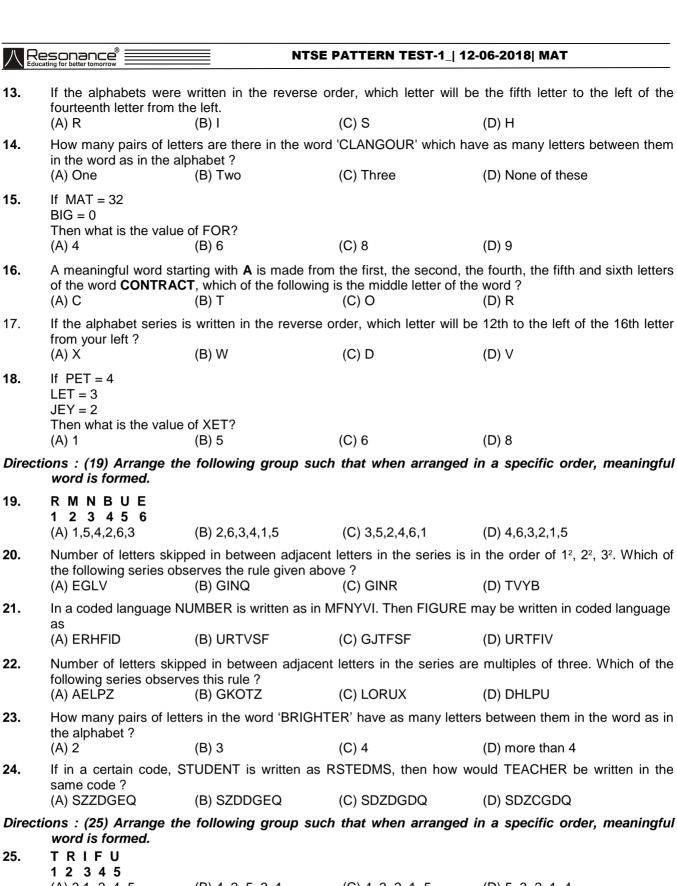
MENTAL ABILITY TEST (MAT)

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.

1.	Arrange the given words 1. SIGN		in dictionary. 3. SCENE	4. SIMPLE
	(A) 3, 1, 2, 4	(B) 3, 1, 4, 2	(C) 3, 4, 1, 2	(D) 3, 4, 2, 1
2.	From the word INACTIV letters and using each le		ent words can be made	without changing the order of the
	(A) One	(B) Two	(C) Three	(D) More than three
3.	How many such pairs o between them in the wor		word 'ADVERTISEME	NT', which have as many letters
	(A) 3	(B) 4	(C) 5	(D) More than five
Directi	ons : (4) Arrange the fol is formed.	llowing group such tha	nt when arranged in a s	pecific order, meaningful word
4.	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
5.	them in the word as in al	phabet?		h have as many letters between
_	` '	(B) Three	(C) Five	(D) More than five
6.	be the third to the right o	f the tenth number/ lette		ng with 3 , which letter/number will at ? (D) 23
Direction	ons : (7) Arrange the fol	llowing group such tha	nt when arranged in a s	pecific order, meaningful word
7.	D I F E R N 1 2 3 4 5 6	(D) C 4 2 5 2 4	(0) 2.5.2.4.6.4	(D) 5 4 2 2 C 4
8.	• •	` '	(C) 3,5,2,4,6,1	` '
0.		and seventh letters are i		are interchanged; similarly the which letter will be third from the
	(A) C	(B) E	(C) F	(D) N
9.	them in the word as in th	ie alphabet.		h have as many letters between
	(A) Three	(B) One	(C) Two	(D) Seven
Direction 10.	ons : (10) In each of the the given word. MEASUREMENT	e following questions,	find which one word c	an be made from the letters of
10.		(B) MANTLE	(C) SUMMIT	(D) ASSURE
11.	third and the seventh and			ed, the second and the sixth, the end after rearrangement? (D) N
12.	How many pairs of lette them in the word as in al		, 'EXPERIENCED 'which	h have as many letters between
	(A) One	(B) There	(C) Four	(D) More than four
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	Educating for better tomorrow	Website: www.pccp.resonance	e.ac.in E-mail : pccp@resonance.	AC.in MAT TEST-1_CLASS-X_PAGE-2
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25.	TRIFU			
	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



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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.

	grows a fruit ? (A) Water	(B) Food	(C) Sky	(D) Tree
43.		food is called tree, tre	e is called sky , sky is ca	lled wall, on which of the following
42.	2, 12, 36, 80, 150, ? (A) 194	(B) 210	(C) 252	(D) 258
41.				r not means avoid harmful habit does mean habit in that language (D) Cannot be determined
40.	ZYX, BAZ, DCB, FED, (A) GHF		(C) FFG	(D) HGF
39.	Student is called Sain Duffer is called Head,	nt, Saint is called Thie then tell who does the jo		ician, Politician is called Duffer, and night?
38.			ays lovable, 619 means e word future stand for in (C) 1	s always happy future and 952 in the same language? (D) Can not be determined
37.	If rain is called water , do the aeroplane fly? (A) Water	water is called air, air(B) Road	is called sky , sky is call (C) Sea	led sea , sea is called road, where (D) sky
36.	15, 34, 71, 134, 223, 3 (A) 71	(B) 134	(C) 223	(D) 350
	(A) BPRNSBZ	(B) B R P M S Z B	(C) BRPMSDZ	(D) BRPMSXZ
35.	If TEACHER and HIG code the word CHARIT		PBRWM and QSM	R D Z respectively, how will you
34.	If LONDON is 5c62z5, (A) wh7cdw	then EUROPE is (B) wh7z6v	(C) br76cb	(D) wh76cb
33.	If MAY is yzqaiq, then (A) 7rtxwv	TIE is (B) 7rtxvw	(C) 7rtxbw	(D) 7rtxwb
32.	If MAIDEN is yux2b6, t (A) b428w8	` '	(C) b42dbe	(D) b42bde
31.	` ,	OSS is to e6e, then DOT (B) bce	. ,	(D) vr6
30.	If MAIDEN is u5v4zb, t (A) vuz3b8	hen DANGER is (B) 8b3zuv	(C) uv3z8b	(D) uv3zb8
29.	If FASHION is z64t7uv (A) z64e476c	v, then POSITION is (B) z64e47c6	(C) c674e46z	(D) c674e4z6
28.	If BAFFLE is aat4cx, th (A) vacx49	nen DANGER is (B) vacxh9	(C) vacxhi	(D) vacxhr
27.	If DASH is 2 a 8 4, the (A) 7 5 U 7 t	n SMASH is (B) e y a 8 4	(C) 8 z q e 3	(D) 8 z q e 4
	A B C D E F C		c d 8 7 e r h 9	ipg



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44.		t stand for				e old, 54	46 means old man gold (C) 5			d and 378 means Books and pen. (D) 6			
Direction	ons: (45) Find	the miss	ing nun	nber.								
45.	55, 2 (A) 4	10, ?, 820 65), 1275	(B) 420			(C) 410			(D) 515			
46.	In a code A is denoted by B, B by C, C by D,						and so d	on till V t	then FRA	CTION	S is den	oted in the sa	me
	code (A) G	by– SSBDUJP	ОТ	(B) GSI	BDVJP(TC	(C) GS	BDUJP	ΩТ	(D) GS	BDUJOF	PT	
47.		AIN is cod			e code NNRCP			ould be MMSBF)	(D) QB	NNSBP		
48.	16, 5 (A) 7	4, 195, ? 80		(B) 802			(C) 816	6		(D) 824	1		
Directio	n (46	-50) : Bas	sed on the	e followi	ng code	and key	schem	e, code a	and deco	de lette	r/words i	n quest	
Code: Key:	H L		Q b	U e	A f	T h	Y i	S j	H z	R y	I 0	N p	
49.	QUA (A) b	LITY cgeohr		(B) bef	goih		(C) bef	coih		(D) bef	cohi		
50.	QUA (A) b			(B) cfgz	zi		(C) bef	yi		(D) def	yh		
51.		IMAN :yodfp		(B) jzyc	odhp		(C) jzyoefg			(D) jzyoegi			
52.	THIS (A) h			(B) hzo	j		(C) hzi	İ		(D) hzc	oi		
Direction	ons (5	53 to 70) I	Find the	missing	term.								
53.	6, 15 (A) 1	, 35, 77, 1 71	143, ?	(B) 181			(C) 19 ⁻	1		(D) 221	l		
54.	4, 10 (A) 5	, 22, 46, ? 6	•	(B) 66			(C) 76			(D) 94			
55.	2, 10 (A) 1	, 30, 68, 94	130, ?	(B) 210	1		(C) 222	2		(D) 258	3		
56.	0, 2, (A) 6	2, 3, 3, 5,	8, 4, 10,	?, 5, 17 (B) 7			(C) 9			(D) 15			
57.	8, 15 (A) 1	, 28, 53, ? 20	•	(B) 106	i		(C) 10 ⁴	1		(D) 102	2		
58.	445, (A) 2	221, 109,	53, 25, 1	1, ? (B) 4			(C) 6			(D) 8			
59.	444, (A) 3	300, 200, 00	136, ?, 8	84, 80 (B) 200	1		(C) 85			(D) 100)		
60.	7, 15 (A) 2	, 28, 59, 1 43	114, ?	(B) 233	;		(C) 213	3		(D) 223	3		
61.	25, 4 (A) 3	9, 89, 145 05	5, 217, ?	(B) 327			(C) 309	9		(D) 303	3		

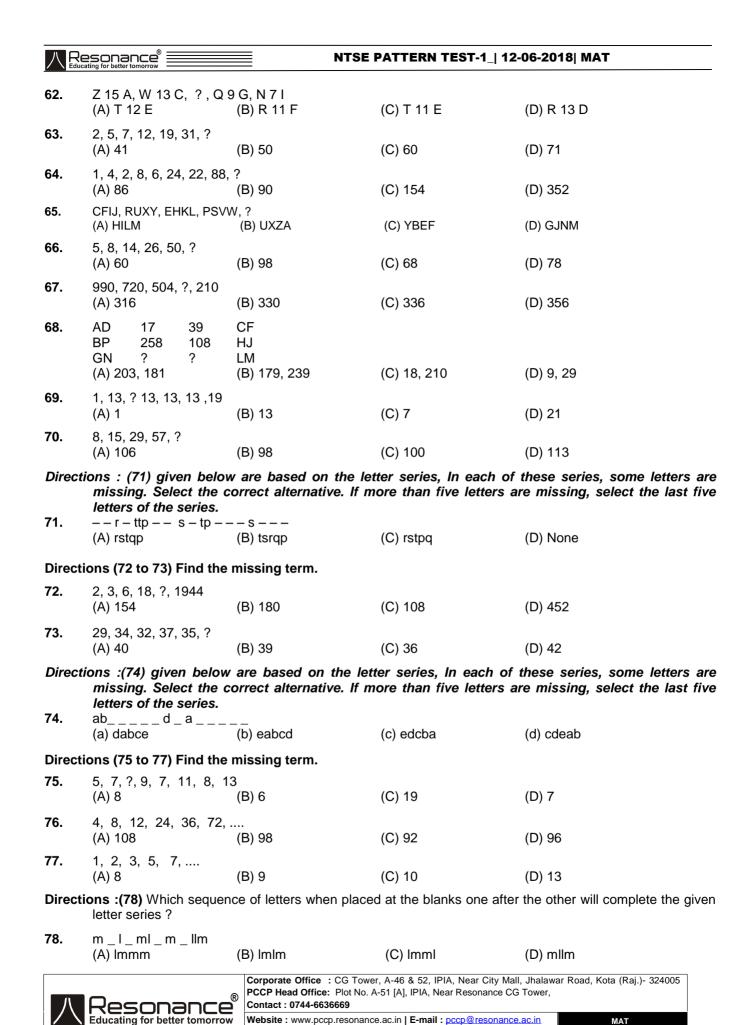


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Direction (79 to 86) Find the missing term.

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) bbaa

(B) baba

(C) baab

(D) abab

90. aab-aaa-bba-

(A) baa

(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-bcab-cabc-aab-ab-c

(A) a b c c b

(B) cacbc

(C) aabcb

(D) aabac

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



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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_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



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NTSE PATTERN) (NTSE PATTERN)

TARGET: 2018 MAT (CLASS-X)

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.	В	В	D	С	D	С	С	D	D	Α	С	D	Α	D	D
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	В	В	С	С	Α	D	Α	В	С	В	D	С	Α	Α	С
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	Α	С	В	В	D	В	С	В	D	D	Α	С	С	В	Α
Ques.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	Α	Α	D	D	D	Α	В	D	D	С	D	D	В	D	В
Ques.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.											• •			• •	
Alis.	Α	С	В	Α	С	В	С	Α	С	D	С	С	A	D	В
Ques.	76	77	В 78	A 79	C 80	В 81	C 82								
								Α	С	D	С	С	Α	D	В
Ques.	76	77	78	79	80	81	82	A 83	C 84	D 85	C 86	C 87	A 88	D 89	В 90

3. Letter in the given word

Letter in the alphabet

I. D<u>VERTI</u> D<u>EFGH</u>I II. I<u>SEM</u>E I<u>HGF</u>E

III. D<u>VERTISEME</u>N D<u>EFGHIJKLM</u>N
IV. R<u>TISE</u>M R<u>QPON</u>M
V. T<u>ISEME</u>N T<u>SRQPO</u>N
VI. I<u>SEME</u>N I<u>JKLM</u>N

- **4.** (C) The given letter, when arranged in the order 4,3,5,1,6,2. Form the word **MENTAL**.
- 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 \rightarrow 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.



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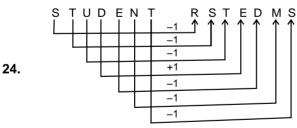
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- 12. EXPERIENCED \rightarrow DE, DI, EI, CE
- 14. CLANGOUR \rightarrow CG, LN, LR, NR, AC
- 15. M A T = 32 13 - 1 + 20B I G = O 2 - 9 + 7F O R = 9 6 - 15 + 18
- **16.** C, O, T, R, A \Rightarrow ACTOR
- **18.** PET = 4 LCT = 3, XET = 6, JEY = 2 $(16 \times 5) \div 20$ $(12 \times 5) \div 20$ $(24 \times 5) \div 20$ $(10 \times 5) \div 25$
- **19.** (C) The given letter, when arranged in the order 3,5,2,4,6,1. Form the word **NUMBER**.
- 20. <u>E F G H I J K L M N O P Q R S T U V</u>

 1 4 9

 (1)² (2)² (3)³
- 21. 14 21 13 2 5 18 N U M B E R ↓ ↓ ↓ ↓ ↓ ↓ M F N Y V I F I G U R E ↓ ↓ ↓ ↓ ↓ ↓ 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.



TEACHER → SDZDGDQ

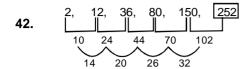
25. (B) The given letter, when arranged in the order 4, 2, 5, 3, 1. Form the word FRUIT.



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57. 8, 15, 28, 53, 102
$$\times 2 - 1 \times 2 - 2 \times 2 - 3 \times 2 - 4$$

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

 $5 + 7 = 12$
 $7 + 12 = 19$

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, 7, 13....... & 13, 13, 13.......



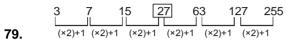
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- 71. (C) The series is (श्रेंणी है) p q r s t / t p q r s / s t p q r / r s t p q Thus the last five letters are (अन्तिम पाँच अक्षर) - r s t p q.
- 72. The third term of the series is obtained by multipling the frist and second term. Forth term is obtained by multipling the second and third term and so on.
 ∴ missing number = 6 × 18 = 108.
- **74.** (D) abcde/bcdea/cdeab/dThe repetitive block is abced. 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.



- ∴ 27 must be replaced by 31.
- :. 27 is wrong term.
- **87.** (C) baab / baab / baab
- 89. The series is aaabbb / aaabbb. So, pattern aaabbb is repeated.
- **90.** The series is aabbaa / aabbaa. So, pattern aabbaa 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
- 99. (B) Given series is :
 c b <u>a</u> / a b <u>c</u> / c b <u>a</u> / a <u>b</u> c / c <u>b</u> 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



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