

**NATIONAL TALENT SEARCH EXAMINATION
NTSE STAGE-II (2016)
CLASS-X [MAT]_TEST DATE : 08-05-2016**

HINTS & SOLUTIONS

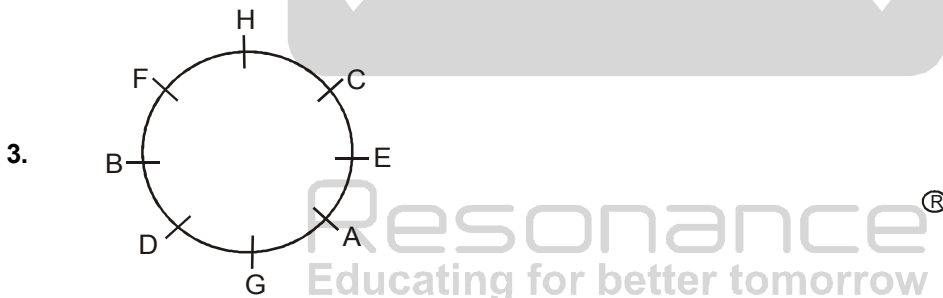
ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	3	2	3	2	1	4	3	2	1	2	4	3	3	1
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	2	3	1	4	2	2	4	2	3	2	3	1	3	1	2
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	3	4	2	3	1	3	4	4	3	1	2	3	4	1	4
Ques.	46	47	48	49	50										
Ans.	3	3	3	2	3										

1. $\begin{matrix} 4 & 25 & 10y \\ D3Y & \underbrace{\hspace{1.5cm}}_{-13} & \underbrace{\hspace{1.5cm}}_{-13} & \underbrace{\hspace{1.5cm}}_{-13} \\ & 7 & 21 & 10 & 17 & 13 & 13 \\ & G,9,U,91 & J27,Q78 & M81,M65 \end{matrix}$

16
P 243ISC

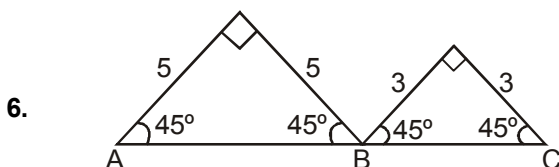
2. $(0.8)^3 = 0.512$
 $(0.04)^3 = .000064$

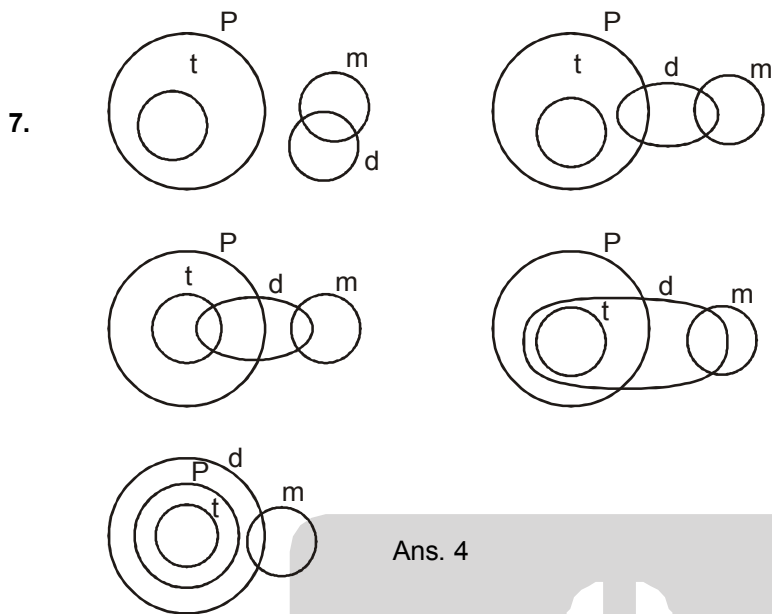


Option 2 is correct
F is sitting third to the left of G.

4. Option 3 H & F are sitting next to each other.

5. Option 2 ECHFBDG





Ans. 4

Q. 10–12

	2 nd H	5 th E	3 rd Sci 1 st	3 rd M	4 th Sans
A 3 rd	x	x	x	✓	x
B	x	x	✓	x	x
C	✓	x	x	x	x
D 5 th	x	✓	x	x	x
E 4 th	x	x	x	x	✓

1st Sci → B
 2nd H → C
 3rd M → A
 4th Sans → E
 5th E → D

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13. Ans. 3

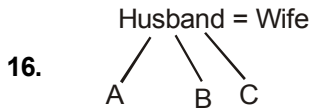


14. Ans. 3

$$\begin{aligned}
 &= \div 33 \times 11 \div 9 \times 28 + 4 - 5 && \text{after changing the sign} \\
 &= -33 + 11 - 9 + 28 \div 4 \times 5 \\
 &= -33 + 11 - 9 + 7 \times 5 \\
 &= -42 + 46 = 4
 \end{aligned}$$

15.
$$\begin{array}{cccccc} 18 & 5 & 1 & 19 & 15 & 14 \\ R & E & A & S & O & N \\ -2 \downarrow & +2 \downarrow & -2 \downarrow & +2 \downarrow & -2 \downarrow & +2 \downarrow \\ 16 & 7 & 25 & 21 & 13 & 16 \\ P & G & Y & U & M & P \end{array}$$

$$\begin{array}{cccccc} 4 & 9 & 18 & 5 & 3 & 20 \\ D & I & R & E & C & T \\ -2 \downarrow & +2 \downarrow & -2 \downarrow & +2 \downarrow & -2 \downarrow & +2 \downarrow \\ B & K & P & G & A & V \\ 2 & 11 & 16 & 7 & 1 & 22 \end{array}$$



Present Age Husband = Present age of wife + 5.
 Present Age of wife = 2 × Present Age of A
 Present Age of A = 12 + Present Age of B.
 Present Age of B = 3/2 × Present age of C.
 Present Age of C = 12 years

$$B = \frac{3}{2} \times \frac{6}{2} = 18 \text{ yrs.}$$

$$A = 12 + 18 = 30 \text{ yrs.}$$

$$\text{Wife} = 2 \times 30 = 60 \text{ yrs.}$$

$$\text{Husband} = 65 \text{ yrs.}$$

$$\text{Friend's Age} = \text{Age of Husband} - 15 = 50 \text{ yrs.}$$

17. Pritam, Zeba, Joy & Anu
 Alphabetical order → Anu, Joy, Pritam, Zeba
 → 3 weeks → 15 days

Anu 4 day Joy 4 day Pritam 4 day Zeba 3 day
 Zeba - 3 days

18.

	Mon	Tue	Wed	Thu	Fri
I →	A	J	P	Z	A
II →	J	P	Z	A	J
III →	P	Z	A	J	P

Or

Anu	M				
Joy	T	M			
Pri	W	T	M		
Zeba	Th	W	Tu		
Anu	Fri	Th	W		
Joy		Fri	Th		
Pri			Fri		

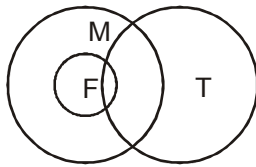
19.
$$\text{S.P.} = 1000 \times \frac{40}{100} \times \frac{60}{100} = 240$$

20.

4	5	$4 \times 5 = 20$	6	4	$6 \times 4 = 24$
2	5	$-(2 + 5) = -7$	7	2	$-(7 + 2) = -9$
		13			15

9	3	$9 \times 3 = 27$	8	3	$8 \times 3 = 24$
4	5	$-(4 + 5) = -9$	4	6	$-(4 + 6) = 10$
		18			14

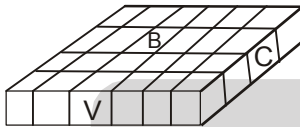
21.



23.

Reena > Ritu > Zeha
 $x + 2$ x $x - 3$
 ATQ $2x - 1 = 3(x - 5)$
 $2x - 1 = 3x - 15$
 $x = 14$

24-26.



24.

Ans. 3

25.

Ans. 2

26.

Ans. 3

29.

We have four horses in one race
 divide 16 horses in for groups



now two conditions are there

- I – If both the fastest are in same group
- II – If one is in one group and 2nd is in other group.

To determine the fastest, four races in groups now conduct 5th race between all groups toppers so we can determine the fastest.

Now in 6th race take 2nd of 5th race, take rest 3 of the group from which the fastest horse. So the topper of 6th will be 2nd topper of 16.

30.

b c e g k ? q s
 2 3 5 7 11 13 17 19
 series of prime no. $13 = m$

32.

$5 \rightarrow 3 \rightarrow 2$
 $1 \rightarrow 4 \rightarrow 6$
 Opp. of 2 is 6.

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33.

2, 10, 30, 68,, 222
 $1^3 + 1, 2^3 + 2, 3^3 + 3, 4^3 + 4, 5^3 + 5$

Ans. $5^3 + 5 = 125 + 5 = 130$ **Ans. 2**

34.

$T - S \times B - M$

\ominus
 $B \leftrightarrow M^{\oplus}$

\downarrow
 $T \leftrightarrow S$
 $\ominus \quad \oplus$

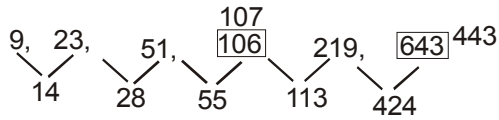
S is son of B, not daughter **Ans. 3**

35.



(i) either I or II & III follows.

36.



38.

R > V
A > P
S > P

Parul lies between R and A

A > P > R > V

in case - I

S > A > P > R > V

in case- II

A > S > P > R > V

So Ans (4) Parul is elder to Veena

39.

$$1^2 + 5^2 + 7^2 = 75$$

$$9^2 + 7^2 + 8^2 = 194$$

$$\text{So, } 8^2 + 3^2 + 4^2 = 80$$

41.

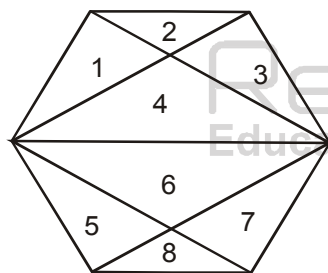
For 8 beats it takes 7 intervals

7 interval – 8 sec.

1 interval – $\frac{8}{7}$ sec.

10 intervals – $\frac{8}{7} \times 10 = 11.43$ second

42.



Pieces
4

- (1,2,3,4) (5678) (1456) (3456) (7643) (1467)

Pieces
3

- (1,4,6) (465) (346) (467)

Pieces
2

- (4,6)

Q. 43– 45

	Foot	Cri.	Tennis	(Tallest) Kaba	Sqnash	(Shortest) Vollyball		
Tarun	✓	×	×	×	×	×		
Umesh	×	×	×	✓	×	×	T > P	Height U K T P S R
Prem	×			×		×	T > S	
Kamal	×			×		×		
Ramesh	×	×	×	×	×	✓		
Shyam	×			×		×		

46. $\frac{121}{11^2} \frac{81}{9^2} 99(10^2-1), \frac{100}{10^2} \frac{64}{8^2} 80(9^2-1), \frac{81}{9^2} \frac{49}{7^2} 63(8^2-1), \frac{64}{8^2} \frac{36}{6^2} 48(7^2-1), \frac{49}{7^2} \frac{25}{5^2} 35(6^2-1)$

47. $(6 - 5)^3 + 1^2 \quad (12 - 10)^3 + 2^2 \quad (18 - 15)^3 + 3^2 \quad (24 - 20)^3 + 4^2$

48. T - θ
R - β
A - δ
Y - ε
TRAY → βθδε

49. Monday $20 \times 25 = 500$
 $500 =$ First 5 days $10 \times 5 = 50$ Second 5 day $15 \times 5 = 75$ Third 5 day $20 \times 5 = 100$ Fourth 5 day $25 \times 5 = 125$ Fifth 5 day $30 \times 5 = 150$
 $50 + 75 + 100 + 125 + 150 = 500$

50. length of diagonal = $\sqrt{l^2 + h^2 + b^2}$
 $= \sqrt{1+1+1} = \sqrt{3}$

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NATIONAL TALENT SEARCH EXAMINATION NTSE STAGE-II (2016)

LANGUAGE COMPREHENSIVE TEST (LCT)

CLASS-X [ENGLISH]

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	2	2	4	3	4	4	2	4	2	2	1	2	1	4
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Ans.	3	2	4	4	3	2	1	2	1	1	3	1	2	1	4
Ques.	46	47	48	49	50										
Ans.	4	3	2	3	1										

LANGUAGE COMPREHENSIVE TEST (LCT)

CLASS-X [HINDI]

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	2	2	4	3	4	4	2	4	1	2	1	2	1	3,4
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	3	3	3	4	1	2	4	1	3	1	3	4	3	2	2
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
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Ques.	46	47	48	49	50										
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