Time: 09.00 a.m. to 12.00 noon CENTRECODE: DATE: 0 7 1 1 EXAM SEAT NO .: 3 6 1 8 EXAM SEAT NO. (in words) three опе eight zero zero NATIONAL TALENT SEARCH EXAMINATION 2018 (STD. X)

Instructions to the Candidates:

PART I Mental Ability Test
 PART II Scholastic Aptitude Test

Time 45 Minutes

Maximum Marks 50

PART II Scholastic Aptitude Test
PART III Language comprehensive Test

Time 90 Minutes

Maximum Marks 100

Time 45 Minutes Maximum Marks 50

- Write your Seat No. both in figures and in words on this Question Booklet (above) as Well as on the Answer Sheet supplied to you.
- 3) Each question carries one Mark.
- 4) All questions are compulsory.
- 5) You have to mark your answers on Answer sheet provided with the Question Booklet. Each question is provided with four alternatives. Answer to each question is to be indicated by making a dark circle on the number of the correct alternative in the Answer sheet from amongst those given against the corresponding question in the Question Booklet.
- 6) The answer sheet have three parts:
 - PART— I Mental Ability Test, PART II Scholastic Aptitude Test and PART III Language comprehensive Test. Answers to questions of MAT (PART-I) are to be indicated in PART I Portion of the Answer Sheet. Answers to questions of SAT (PART — II) are to be indicated in PART—II portion of the Answer Sheet and Answers to questions of Language comprehensive Test are to be indicated in PART— III portion of the Answer Sheet.
- 7) Rough work can be done any where in the question booklet.
- 8) Extra time of 30 minutes will be allotted to the Physically Handicapped candidate with Defects of vision only. Please Note the Centre Codes:

1.	Bicholim	0001
2.	Bardez	0002
3.	Pernem	0003
4.	Sattari	0004
5.	Tiswadi	0005
6.	Ponda	0006
7.	Salcete	0007
8.	Sanguem	8000
9.	Canacona	0009
10.	Quepem	0010
11.	Dharbandora	0011
12.	Mormugao	0012

Std: X

Identify the missing number in the following sequence Q. 1.

5, 7, 24, 18, 100, 51, 7, 150

- (1)
- 404
- (2)
- 102
- (3)
- 376

29

89

(4)

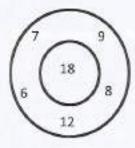
- Q. 2. If $\frac{79}{43} = 8$ and $\frac{67}{14} = 5$ then $\frac{59}{14} =$
 - (1)
- 66
- (2)
- 14
- (3)

(4)

- 23
- If $A \rightarrow 3$, $H \rightarrow 73$, $N \rightarrow 211$, $Q \rightarrow 307$, then find the number that represent K 3+6+4+12+18+21+24+27 = 0
 - (1)
 - 158
- (2)

(2)

- 133
- (3)
- 183
- (4) 91
- Facing north I start my journey and make turning towards the right(R) and left(L) in the Q. 4. sequence given below. N
- Which sequence will finally lead me to face a direction other than the north?
- (1) L, L, R, L, R, R \$
- (2)
- R, L, R, L, R, L (3) R, R, L, L, R, R (4) L, L, R, R, R
- If the day before yesterday was Monday, what day will three days after the day after Q. 5. tomorrow be? МТФІБЗЗМТ
 - (1)
- MONDAY
- SUNDAY
- (3)
- TUESDAY
- (4) SATURDAY
- Find the missing number in the second figure on the basis of the number arranged in the first Q. 6. figure.



- (1)
- 22
- (2)
- 12
- (3)
- 20

20

- (4)
- 16

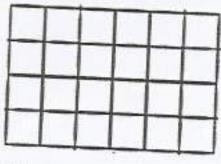
132

(3)

(3)

(3)

Find the number of rectangles in the figure Q. 8.



1.62

- (1)
 - 150
- (2)
- 210

- 48
- 64

(4)

Shamika correctly remembers that her sister's birthday is before 20th but after 14th October, but her father correctly remembers that his daughter's birthday is before 17th October on even day. Shamika's sister's birthday is on _

- 19th October (1)
- 16th October
- 18th October (4) 15th October

Q. 10. What is the value of M in the following?

14 - 30.

5	6	23	3	
7	8	М	5	1
9	10	109	9	-

- (1)
- 68
- (2)
- 159

- 131
- (4) 47

Q. 11. In the given sequence some letters are missing. Which of the given option can fill the blanks in the correct order from left to right

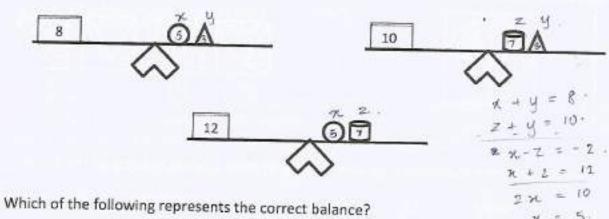
lin moj inmolin malin ma

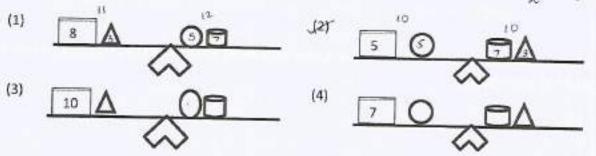
- (1)
- i, i, m, o, o
- (2)
- i, i, o, m, o
- (3)

(3)

- i, m, m, o, o
- (4)
 - i, o, m, o, i

Q. 12. Observe the following figure representing a balance





Q. 13. If P,Q,R,S are distinct decimal digits then which of the following option is correct ?

- (1) 9,6,1,5 (2) 4,7,1,8 (3)2,3,1,7 (4) 7,6,1,4
- Q. 14. Which letter will replace the question mark? 4 6 8 9 10 12. D, F, H, I, J, L, ?, 14 (2) M (3) 0 (4)

Q. 15. In a bus there are 7 vacant seats .In how many ways can 4 passengers sit on them?









Q. 17. If your grandfather'sbirthday is on Republic day of India at 00.01 hours then the day is ____

12)

FRIDAY

THURSDAY

MONDAY

JE MITWAG

Q. 18. What is the minimum number of square tiles for paving the floor of the room 5m 44cm long and 3m 74cm broad?

(1) 176

(2) 200

(3)96

(4)324

Directions:- (Q. No.:-19-20)

Find from the alternative the number which will replace the question mark (?)

Q. 19.

20	625
12	126
?	238
14	221
	12

(1)

8

(2)

15

(3)

10

(4)

22

Q. 20.

20 G	8H	12 0
8 5	7 G	20 G
10 Q	?	2 Y

(1)

3C

(2)

3X

(3)

6 U

(4)

6F

	. (1)	20	(2)	42	(3)	108	(4)	56
Q. 22,	them h	men and thre Mr.P does not nder given con	want any la	idy neighbor a	and Mrs. C	a circular table Ldoes not want e possible?	for a mee t any man	ting. Amon to sit next to
	(1)	3	(2)	8	(3)	6	(4)	4
Q. 23.	Find th	e letter to be	placed in pl	ace of questio	n mark (?) in the given fi	gure	
				5 1	V	R		
			N		Н	?		
			N I)	Z	G		
			L		С	R		
	(1)	w	(2)	P	(3)	х	(4)	s
Q. 24.	Find the	e odd one out	of the follo	wing				
	TC65,0	F95,KQ182,M1	T265,UD89					
	(1)	KQ182	(2)	TC65	(3)	MT265	(4)	UD89
Q. 25.	With wi	nat operation :	should the	X +	42 + 111	= 36	owing exp 165 14 41 _4	7
	(1)	÷ and +	12)	÷ and x	(3)	+ and ÷	(4)	× and÷
Q. 26.	Which o	f the following	g alternativ					
	(1)	147	(2)	189	(3)	R 165	(4)	170
			11,80,80		177	103	177	178

Q. 21. An auditorium can accommodate 80 adults or 168 children. If 60 adults are inside the

auditorium, how many children can be admitted?

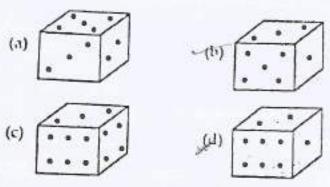
- Q. 27. In shipping yard there are 20 ships that are docked. Each ship contains fish and weighs 120 tonnes each. If weight of first 5 ships is 18 tonnes each, weight of another 5 ships is 25 tonnes each and remaining ships weighs 35 tonnes each, then what is the total weight of the fishes in tonnes?
 - (1) 2505 (2) 1965 (3) 3785 (4) 1835
- Q. 28. Which two years will have the same calendars?

13

- (1) 1915-1921 (2) 1947-1958 (3) 2005-2009 (4) 2000-2012

(1) 50 (2) 51 4 (3) 52 (4) 53 3 N .

Q. 30. The total number of dots on opposite faces of a cubical block is alwys 7, find the figure which is correct?



(1)	a only	(2)	h aut.	LVEST			
	0.470.776	121	b only	(3)	both b and C	(4)	both a and d

Directions:- (Q. No.:- 31-33)

The codes for left column are given in the right column .Find out the codes for letters and answer the questions

PROBLEM		greatsd
ROMAN	Hanf	cftxs
LAME	M O D E bcza	fgat
BOLD		gcdz

Q. 31.	. Wha	it is the code for	letter L ?					
	(1)	t	(2)	c	(3)	а	141	g
Q. 32.	Wha	t is the code for	letter N ?					
	(2)	×	(2)	g	(3)	t	(4)	с
Q. 33.	Wha	t is the code for	the word "	MODE"?				
	(1)	ctaz	12)	tcza	(3)	ftcz	(4)	tfzc
Q. 34.	One	ring is fixed and	second rine	rotates on the	e circumfere	are of the a	ther withou	ıt sliding
	How	many revolution	ns will it tak	e to reach diar	metrically op	posite point	of the first	ring?
	(1)	2	(2)	4	(3)	1	141	0.5
	Direc	tions:- (Q. No.:-	35-37)					
	In th	e following que ify the correct re	estions, on ule applied	e of the rules	below has	been appli	ed to set o	of numbers.
	l.	Subtract thric	e a number	from its squar	e			
	II.	Subtract cube	of a numb	er from its squ	are			
	ш.	Add half of a r	number to i	ts square				
	IV.	Subtract squa		ber from its c	ube.			
Q. 35.	0.5,0	0.75 , 0.84375		×0.5				
	(1)	IV	(2)	0.25	(3)	11.	(4)	111
						75		
Q. 36.	9,54,2	2754						
	(1)	IV	(2)	- 1	(3)	111	(4)	Н

(1) | (2) || (3) ||| (4) ||V

Q. 38. In how many ways can you distribute 20 tennis balls into into two boxes so that they are not empty?

(1) 20 (2) 10 (3) 19 (4) 11

Q. 39. In a certain code, "CERTAIN" is coded as "XVIGZRM", "SEQUENCE" is coded as "HVJFVMXV". How would "REQUIRED" be coded?

(1) IVJFRIVW (2) FJIVWVIR (3) WVJRIFVI (4) VJIFWTRY

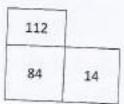
Q. 40. A solid metallic sphere of diameter 12cm is melted and moulded into two identical wires of length 3cm. What is the area of the cross section of the wire?

(1) 36 (2) 48π (3) 72π (4) 60

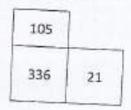
Directions:- (Q. No.:- 41-44)

The numbers in the first two figures are according to some order. Choose the correct answer from the alternatives and write at the place of question mark(?) for third figure

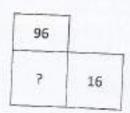
Q. 41.



(1) 160

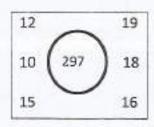


(2) 144 (3) 176

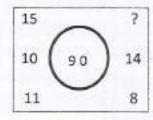


(4) 1258

Q. 42.



11 16 12 14 205 13 15



(1) 6

(2)44

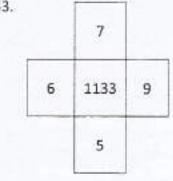
(3)

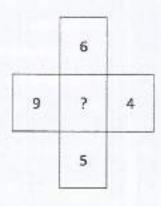
10

(4)

23

Q. 43.





(1)

456

(2)

784

248

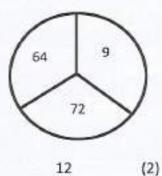
(3)

7

(4)

386

Q. 44.



25

45

36

5 81

(1)

12

(3)

42

(4) 14

Q. 45. Suman enters all the natural numbers from 1 to p such that p< 100 in the first column in the ascending order. She then enters the same number in the second column in the descending order. Then she cancels the rows in which one number is the factor of other. If she cancels 8 rows then find the number of rows initially taken.

(1)

99

(2)

91

(3)

80

(4)

54

	In eac	ch of these au	actions on									
	assur	nptions ,	estions one	statement is f	followed b	y two assump	tions(I)	and (II). If a				
	If ass	umption (I) is	strong ther	mark A								
		umption (II) is										
	If bot	h assumption:	s are strong	mark C								
		h assumptions										
Q. 46	. Stater	ment:- If you a	re a graphic	artist ,we have	e a challen	ging job for vo	ш					
		Statement:- If you are a graphic artist, we have a challenging job for you Assumptions:										
	I. Yo	You are graphic artist										
	II. We	e need a graph	ic designer									
	(2)	С	(2)	А	(3)	D	(4)	В				
Q. 47.	Chan			12° (5000)								
47.			cessful man	has ability to j	udge hims	elf correctly						
		ptions:										
				to the successfi								
				nake a wrong ji	idgment.							
	(1)	В	(2)	D	(3)	Α	(4)	С				
0.40	If DOE 4											
U, 46.	11 9254	Zb is coded as	642259, wł	nat will be the	code for 76	59118?						
	(1)	867119	(2)	896711	(3)	811697	(4)	891716				

Q. 49.	The ren	nainder when	2 ⁹⁹ is divide	ed by 33 is	21	PXI						
					#3.3x11							
	(1)	29	(2)	23	(3)	31	(4)	17				
		AV 1X										
Q. 50.	A clock i	is set to show	correct time	e at 4.00 am. W	/hat is the	correct ties in a	IE al.					
	minutes	a day and sho	ws 4.30 pm	day after tom	orrow?	correct timing	if the cl	ogk gains 1				
	(1)	5.00 pm	(2)	4.00 pm	(3)	5.30 pm	(4)	5.00				
					1-7	3.30 pm	(4)	6.00 pm				
			12									
			+12 24	1								
				10								

SCHOLASTIC APTITUDE TEST

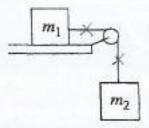
Part II

Std. X

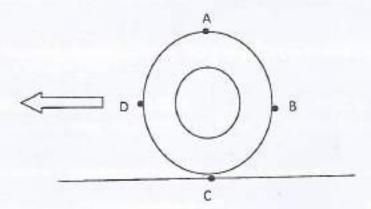
Time: 9.45 am to 11.15 am

(For question no. 1 to 13, Answers are rounded off to the nearest number)

Q.1. What are the forces acting on the blocks m₁ resting on smooth surface and block m₂ over a frictionless pulley?



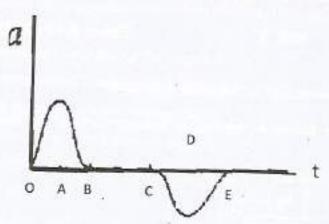
- The weight of m₁ block acting on the surface, frictional force towards left tension T towards right and on m₂ it's weight downwards and tension T upwards.
- The weight of m₁ block acting on the surface, the normal reaction of the surface on the block N, tension T₁towards right and on m₂, it's weight downwards and tension T₂ upwards.
- m₁ block acting on the surface, the normal reaction of the surface on the block N, tension T towards right and on m₂, it's weight downwards and tension T upwards.
- 4) The weight of m₁ block acting on the surface, frictional force towards left tension T towards left and on m₂, it's weight downwards and tension T upwards.
- Q.2. A wheel is rolling without slipping as shown in the figure:



Which of the following statement/s are true?

- 1) The translational velocity is the same at all points A,B,C & D.
- The tangential velocity is the same at all points A,B,C & D.
 - 3) The tangential velocity is the same at all points A,B D & zero at point C
 - 4) The translational velocity is the same at all points A,B,D & zero at point C.

Q.3. The following graph is acceleration against time. Which of the following statement is true?



525

- 1) Between O & A a>0 & increasing; Between A & B a<0 & decreasing Between C & D a<0 & decreasing: Between D & E a<0 & increasing
- Between O & A a>0 & increasing; Between A & B a>0 & decreasing Between C & D a<0 & decreasing: Between D & E a<0 & increasing

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- _3) Between O & A a>0 & increasing; Between A & B a>0 & decreasing Between C & D a<0 & increasing: Between D & E a<0 & decreasing
- 4) Between O & A a>0 & increasing; Between A & B a>0 & decreasing Between C & D a>0 & decreasing: Between D & E a>0 & increasing

Q.4. A car moving at 60 km/h comes to a stop in 4.0 s. What was its average deceleration?

3) 4.2 m/s² 4) 41 m/s²

Q.5. A 1500-kg car accelerates from 0 to 25 m/s in 7.0 s. What is the average power delivered by the engine (1 hp = 746 W)?

373/52 5 1) 60 hp -373

1=5250 x 89.2 = 525 x 892 446

V= 25. t = 75.

a=25.0 3.5. 3) 80 hp

2,5 4) 90 hp F = 1500 x 3, 5. 150 x 35 = 5250 N.

Q.6. In a car the acceleration and deceleration of car can be changed by -

1) the accelerator alone

2) The break alone

73 = 626.

- 3) Using both breaks & accelerator
- 4) Using breaks, accelerator and steering

Q.7. The angular speed of the hour hand of a clock (in radians per second) is

- 1) n/7200
- $2) \pi/3600$

- 3) π/1800
- 4) n/60

Q.8. A piece of cork (density = 0.33 g/cm3) with a mass of 10 g is held in place under water by a string, as shown in the figure below. What is the tension, T, in the string?

1) 0.10 N

2) 0.20 N

3) 100 N

4) 200 N

F = 109 X10 100



9181

Q.9. A 2.0-kg metal object with a temperature of 90 °C is submerged in 1.0 kg of water at 20 °C. The water-metal system reaches equilibrium at 32 °C. What is the specific heat of the metal? (Specific heat of water is 4.187kJ/kg K). 27 3

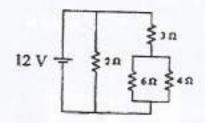
1) 0.840 kJ/kg K

2) 0.129 kJ/kg K

0.512 kJ/kg K
 0.433 kJ/kg K

- Q.10. A Ca2+ ion is placed in an electric field of 800 N/C. Which of the following statement/s is/are true? (q= 1.60 X 10⁻¹⁹ Coulomb) F = Fq.92
 - 1) The ion is doubly charged it will experience the force 2.56X10⁻¹⁶ N in the direction of electric field.
 - 2) The ion is singly charged it will experience the force 2.56X10⁻¹⁶ N perpendicular to the direction of electric field.
 - 3) The ion is singly charged it will experience the force 1.28 X10-16 N in the direction of electric Field
 - 4) The ion is singly charged it will experience the force 1.28 X10-15 N perpendicular to the direction of electric field.
- Q.11. A positive charge is released and moves along an electric field line. This charge moves to a position of
 - lower potential and higher potential energy
 - lower potential and lower potential energy.
 - 3) higher potential and lower potential energy.
 - higher potential and higher potential energy.

Q.12. From the following circuit which of the statement/s are true?



a)	The voltage across 2Ω is $12V$.	
----	---	--

US IR

The current supplied by the battery depends only upon 2Ω

- Maximum current is through $2\Omega \sim$
- d) The current supplied by the battery depends on all resistance
 - 1) Statements (a) (c) & (d) are true. 2) Statements (a) (b) & (c) are true.

- 3) Statements (b) (c) & (d) are true. 4) Statements (a) (b) & (d) are true.
- Q.13. A converging lens has focal length 20 cm. An object placed 50 cm from the lens will have an image at location ----- and lateral magnification-----

1)
$$\frac{2}{3}$$
 X 10² cm, $\frac{-2}{3}$ 2) $\frac{1}{3}$ x 10² cm, $-\frac{2}{3}$ 3) $\frac{2}{3}$ x 10² cm, $-\frac{1}{3}$ 4) $\frac{1}{3}$ x 10² cm, $\frac{1}{3}$

2)
$$\frac{1}{3}$$
 x 10² cm, $-\frac{2}{3}$

3)
$$\frac{2}{3}$$
 x 10² cm, $-\frac{1}{3}$

4)
$$\frac{1}{3}$$
 x 10^2 cm, $\frac{1}{3}$

Q.14. The maximum number of elements in 3rd period is _

1)8

2) 18

3) 32

4) between 8 and 18

Q.15. The most electro negative element in the periodic table is

1) Nitrogen

2) Oxygen 2

3) Fluorine

4) Chlorine

2,6

2,8,1.

Q.16. Which of the following metals displace H₂ from an acid ?

2) Iron

2) Silver

Copper

4) Gold

Q.17. In Galvanization, the metal used is _

1) Nickel

2) Chromium

3) Silver

A) Zinc

Q.18. Reduction involves

1) gain of electrons

2) addition of oxygen 3/ loss of electrons 4) removal of hydrogen

Q.19	. XY + Z →	X + YZ		
	The above react	tion is an example of		
	2 Displacer	nent reaction	2) Disproportionation react	ion
	2) Combinat	tion reaction	4) Decomposition reaction	
Q.20.	. The general fo	ormula of Alkenes is		
	1) C _n H _{2n}	2) C _n H _{2n-1}	3) C _n H _{2n+2}	4) C _n H _{2n-2}
Q.21	CH₃ − CH −	me of the structural form - CH — CH ₃ C ₂ H ₅	ula .	
	1) 2,3 - Diethy	rl butane 2)	2 – Ethyl – 3 – methyl pentane	
	3) Heptane	.41	3,4 – Dimethyl hexane	
Q.22.	The shape of C		H H - C - H	
	1) Linear	2) Trigonal planar	r) 3) Tetrahedral	4) Pyramidal
Q.23.	Identify 'X' in t	he following reaction.		
	Fe ₂ O ₃ + Al	X + Al ₂ O ₃		
	A) Fe	2) FeO	3) Fe ₃ O ₄	4) O ₂
Q.24,	The chemical f	ormula for rust is		
	1) FeO	,2) Fe ₂ O ₃	3) Fe ₂ O ₃ . nH ₂ O	4) Fe ₃ O ₄
Q.25.		per of structural isomers	for pentane are	
	1) 2	2) 3	3) 4	A) 5
Q.26.	Hydrogen gas i	s not evolved when a me	tal reacts with nitric acid beca	use
	1) Nitric acid is	a strong oxidizing agent		
	2) Nitric acid is	strong reducing agent		
	3) Metal does n	ot react with nitric acid		
	4) Nitric acid is	unstable		

Q.27. Kidney stones are mainly	PURSANCES, VISING
1) Sodium chloride	formed by which of the following compound ?
3) Calcium bicarbonate	2) Silicates
, dicarbonate	4) Calcium Oxalate
Q.28. Who discovered the Polio v	accine ?
1) Louis Pasteur	
3) Konrad Zuse	2) Jonas Salk 4) Eli Whitney
Q.29. Exchange of genetic material	takes place in
a) vegetative reproduction	
3) sexual reproduction	2) asexual reproduction
	4) budding
Q.30. Which of the following is an abi	intic co
1) animals	
3) micro-organisms	2) plants
	A) soil
Q.31. Salivary glands secrete which of	
1) Amylase	these enzymes ?
3) Pepsin	2) Lipase
	4) Trypsin
Q.32. In our country vast tracts of fore practice promotes	ests are cleared and a single species of plants is cultivated. This
 biodiversity in that area 	
_3) monoculture in that area	2) growth of natural forest
that area	 preserve the natural ecosystem in the area
Q.33. Which of the following is a group of	
1) mammals	
3) reptiles	2) pisces
	A) arthropods
Q.34. The number of daughter cells form 1) 2 haploid cells	ed at the and as
1) 2 haploid cells	21 2 and or melosis from a cell
,374 haploid cells	2) 2 diploid cells
	4) 4 diploid cells

Q.33.	breakdown of pyruvate to yield	CO ₂ , H ₂ O and energy takes place in
	-1) cytoplasm	2) mitochondrion
	3) chloroplast	4) nucleus
Q.36.	Which among the following is n	ot a component of respiratory system in humans ?
	1) pharynx	2) larynx
	3) hypothalamus	4) trachea
Q.37.	How many of the following are i	involved in Nitrogen fixation ?
	Nostoc, Anabaena, Rhizobium, A	Azotobacter
	1) 1	2) 2
	31 3	4) 4
Q.38.	The primary source of synthesis	of carbohydrates in plants is
	1) atmospheric CO ₂	2) lipids
	3) fats	4) proteins
Q.39.	Insectivorous plants digest the b	oodies of insects by secreting which type of enzymes ?
	1) carbohydrases	2) esterases
	3) proteolytic enzymes	A none of these
Q.40.	Which one among the following	vitamins is necessary for blood clotting?
	1) Vitamin – A	2) Vitamin - D
	3) Vitamin – K	4) Vitamin - C
Q.41.	Where did Gandhiji started the S	atyagraha movement against the indigo plantation system?
	1) Champaran	2) Porbandar
	3) Chilka	4) Assam
Q.42,	The Quasi-military wings of the y	routh called 'Storm troopers' was raised by
	1) France	2) Italy
	3 Germany	4YTurkey

Q.43. V	What was the name given to	mass killings of the Jews under Hitler's regime?
1) Special task	
3) Final stage	2) Special Treatment or Final solution4) Special Task or Final Stage
Q.44. A	cross India, from Mizoram to	Kerala many forest thrived because
1)	Government restricted cutt	ing of trees.
.21	Villages protected forest as	sacred groves
3)	Local residents restricted cu	itting of forests
4)	Forest with dangerous anim	als survived as no one dared to enter these forests.
Q.45. In	which state of India are the (Sullar Bakarwals found?
1)	Rajasthan	2) Maharashtra
3)	Gujarat	4) Jammu and Kashmir
Q.46. The	first Indian community to st	art playing the act to
1) .	Jews	art playing the cricket game was the small community of
3) 8	Buddhist	4) Zorastrians
Q.47. The	Youth Lagran state as	
	e Youth League of the Nazis w	
3) 1		2) 1922
	777	4) 1924
Q.48. The	first Railway line in India was	faid in 1853 by
	ord Dalhousie	2) Lord Wellesley
3) Lo	ord Mountbatten	4) Lord Hasting
2,49. Who	was the founder of 'Abhinav	Bharat'?
	enapati Bapat	2) Lala Lajpat Rai
3) Pr	afulla Chaki	4) Vinayak Damoadar Sawarkar
2.50. Who	was the "Father of Goa's Fre	edom Movement"?
	rushottam Kakodkar	2) P.P.Shirodkar
3) Dr	T.B. Cunha	Luis de Menezes Braganca
		The state of the s

1251	The Habsburgs were rulers of					
	1) Austria-Hungery	2) Dutch Republic				
	3) Germany	4) Switzerland				
Q.52	. The great lady freedom fighter unfu	rl Indian flag at Stuttagart in				
	Germany for the first time is					
	Pritilata Wadedar	2) Madam Bhikaji Cama				
	3) Kalpana Dutta	4) Suniti Chaudhari				
Q.53	Which one of the following pheno tropic of Capricorn.	omenon happens when the sun shines vertically over th				
	 High Pressure develops over No 	orth-Western India due to low temperature.				
	2) Low Pressure develops over Nor	rth-Western India due to high temperature.				
	No changes in temperature and pressure occur in North-Western India.					
	4) 'Loo' blows in the North-Wester					
Q.54	When you travel in certain parts of the colour?	India, you will notice red soil. What is the main reason fo				
	1) Abundance of Magnesium	2) Accumulated humus				
	3) Presence of ferric oxides	4) Abundance of phosphates				
Q.55	Which one of the following ports is the 1) Vishakhapatnam	ne deepest landlocked port on the East coast of India? 2) Chennai				
	3) Paradip	4) Kolkata				
Q.56	Consider the following statements					
	(a) Infant mortality rate takes into acc	count death of infant within a month after birth.				
	(b) Infant mortality rate is the numb- during that year.	er of infant death in a particular year per 100 live births				
	Which of the following statements	s is / are correct				
	1) Only (a)	2) Only (b)				
	3) Both (a) and (b)	4) Neither (a) nor (b)				

Q.57	Which of the following is not correct	ctly matched?
	1) Arctic circle 66.5 ⁰ N	2) Tropic of Cancer 23.5° S
	3) Prime Meridian 0 ⁰	4) International date line 180 ⁰
Q.58	Which one among the following or year?	ities never get the vertical rays of the sun all through the
	1) Hyderabad	2) Mumbai
	3) Delhi	4) Kolkata
Q.59	With reference to the river Luni, wh	nich one of the following statements is correct?
	1) It flows into Gulf of Khambhat	
	2) It flows into Gulf of kutchchh	
	3) It flows into Pakistan and merge	es with a tributary of Indus
	4) It is lost in the marshy land of th	ne Rann of Kuchchh
Q.60	Which one of the following is the their normal annual rainfall?	correct sequence of the given Indian cities in the order of
	1) Kochi-Kolkata-Delhi-Patna	2) Kochi-Kolkata-Patna-Delhi
	3) Kolkata-Kochi-Patna-Delhi	4) Kolkata-Kochi-Delhi-Patna
Q.61	The teak is a large tree of the	
	1) Deciduous forest	2) Coniferous Forest
	3) Tidal Forest	4) Tropical rain forest
Q.62	Hanging valleys are carved out by t	he action of
	1) Wind	2) Rivers
	3) Glaciers	4) Ocean waves
Q.63	Transhumance refers to	
	1) Shifting agriculture	
	2) Plantation farming	
	3) Economy solely depending on a	nimals

4) Seasonal migration of people with their cattle.

Q.64	Which of the following statemer	nts is no	ot correct?	
	1) In developing countries most			mary industries
	2) Tertiary occupation develop			
				sary for raising standard of living
	4) Shifting cultivation is a highly			sery for reising standard or living
Q.65	Who summons and prorogues th	ie sessi	on of Parliament?	
	1) Prime Minister 2) Presid	lent	3) Speaker	4) Vice-President
Q.66	A device available to the comm	on ma	sses to seek the Cour	ts interventions in public matters
	1) Public Interest Litigation	2)	Certiorari	
	3) Quo Warranto	4)	Habeas Corpus	
Q.67	Goa became 25 th state of Indian	Union i	n .	
	1) 1986		1987	
	3) 1984	4)	1988	
Q.68	Who among the following UN Sec	cretary	General said "The US	war on Irag was illegal"
	1) Kofi Annan		Kurl Waldheim	
	3) Dag Hammdrskjold	4)	Trygve Lie	
Q.69	Who is the Ex-Officio Chairman of	f Rajya	Sabha?	
	1) Prime Minister	2)	Governor	
	3) President	4)	Vice-President	
Q.70	A democratic government is respo	onsible	to	
	1) The President	2)	The Prime Minister	
	3) Chief Justice of India	4)	The people.	
Q.71	The Constitution of India has creat government in following winds.	ted bot	th in the case of the Ur	nion government and state
	1) Consolidated Fund of India	2) 1	Public Account Fund	
	3) India Fund	4) (Only (1) and (2)	

Q.72	Cultural and Educational rights inc	slude:
	1) Right of minorities to establish	and administer their educational institutions.
	2) Right of minorities to promote	
	 Right against discrimination freligion, race or caste. 	for admission to educational institution on the ground of
	4) All the above.	
Q. 73.	Indian consumer protection Act w	as passed in the year
	1) 1966	2) 1976
	3) 1986	4) 1996
Q. 74.	Per capita Income = population	
	1) G.D.P.	2) N.I.
	3) N.D.P.	4) A.G.P.
Q. 75.	Which of the following is at presen	t the largest power using sector of the Indian economy ?
	1. Agriculture	
	2. Domestic consumers and street	lighting
	3. Industry	
	 Transport and communication, i 	ncluding Railways
Q.76,	Which of the following day is obser	rved as the World Consumer Day ?
	1) 05 th March	2) 15 th March
	3) 20 th March	4) 25 th March
Q.77.	The common method used to mea:	Sure poverty is
	1) Income	2) Saving
	3) Investment	4) Profit
Q.78.	Which of the following is exclusive and rural development in India.	ly concerned with the credit needs of all types of agriculture
	1) I.B.R.D.	2) R.B.I.
	3) N.A.B.A.R.D.	4) S.B.L.

(2.79. Publ	lic goods are the	ose which_					
	1) A	re brought by m	embers of t	he public as dist	inct from th			
	2) Ar	e produced by	a public com	pany as distinct	from a not	ie Governm	ent.	
	3) Ar	e cheap but not	t of good qua	ality.	mont a nat	ionalized i	ndustry.	
				the community.				
Q	80. Which	h of the followin	ng is not a fu	nction of mone	v 2			
	1) It is	s a medium of e	xchange		r)			
		creases purcha						
		a standard me		e				
		a hedge agains						
3.D	cm res	ngth of diagona pectively. A pe gth of the large 11√2	st rod that c	tubes A, B and (to form a new an be placed in	the new cu	as √108 cr elting thes be formed?	m,√192 ci e cubes. \	m and $\sqrt{300}$ What can be
Ja6 = 1	3 2 32	1142	(2)	12√3	(3)	13√5	(4)	14√6
2 16 Q.8	2 115 2 8 2 8		7			108 = 312	50	H = x A = 3
64X 6 X4	6. 2.2	many ways 144	can be expri	essed as a produ	act of two o	lifferent fac	tors? 34	6 5 A 2 2
[384916]	(1)1	10	(2) -2	9 144 72 86	(3)	8	(4) Ú	7
Q.83		² and 3 ³ are fac	ctors of $n \stackrel{?}{\underset{>}{\stackrel{>}{\stackrel{>}{\stackrel{>}{\stackrel{>}{\stackrel{>}{\stackrel{>}{>$	18	hat is the s	mallest pos	sible value	e of n?
	(1)	75	(2)	65	(3)	55	(4)	45
Q.84	Three fair	r dice are rolled	. What is the	probability tha	t the three	numbers th	nat come (ıp form
	the sides	or o criangle:						

Q.85 If LCM of first 40 natural numbers is x ,LCM of first 50 natural numbers is kx and LCM of first $\frac{(k-27)}{1000}$

Natural numbers is akx then the value of a is ______

- (1) 59 (2) 53
- Q.86 The product of $(a^{\frac{1}{6}} + a^{-\frac{1}{6}}), (a^{\frac{1}{6}} a^{-\frac{1}{6}}), (a^{\frac{1}{8}} + a^{-\frac{1}{8}})$ and $(a^{\frac{1}{4}} + a^{-\frac{1}{4}})$ is ______
 - (1) $\left(\frac{a^2+1}{a}\right)$ (2) $\left(\frac{a^2-1}{a}\right)$ (3) $\sqrt{\frac{a^4-1}{a^2}}$ (4) $\sqrt{\frac{(a-1)^2}{a}}$

(3)

61

(4)

47

- Q.87 Preeti, Isha and Shruti divided some number of chocolates among themselves in the ratio 14:40:27. Since Isha was not happy with the division ,they revised the division to 19:55:37. How many chocolates did Shruti got more from the division?
 - (1) 19 (2) 27 (3) 0 (4) 37
- Q.88 In the given figure a bigger circle is inscribed in a square with perimeter 4 units. A smaller circle intersects the bigger circle at one point and the square at two points. What is the radius of the smaller circle?



- (1) $\frac{3-2\sqrt{2}}{2}$ (2) $\frac{\sqrt{2}-1}{1+2\sqrt{2}}$ (3) $\frac{\sqrt{2}-1}{2}$ (4) $\frac{3-2\sqrt{2}}{1+6\sqrt{2}}$
- Q.89 How many points of (x, y) where x and y are integers satisfy the inequality $(x+2)^2+(y-3)^2\leq 4$?
 - (1) 5 (2) 10 (3) 13 (4) 12

Q.90		If the polynomial $16y^2 - 6y^3 + y^4 + 10 - 35y$ is divided by another polynomial $y^2 + m - 2y$, the remainder is $y + n$ then $m - n$ is							
	(1)	-5	(2)	10	(3)	0	(4)	16	
Q.91	If P(1	,2) and Q(2,-1) and ℓ	IPQR is	an equilateral triangl	e then	co-ordinates of			
	(1)	R cannot lie in the first quadrant	(2)	R cannot lie in the second quadrant	(31)	R is at the origin	(4)	R lies in the third quadrant	
Q.92	If (co	$os^2\emptyset)^2 + \frac{\tan^2\emptyset}{\sec^2\emptyset} = p$							
	(1)	$1 \le p \le 2$	(2)	$\frac{1}{2} \leq p \leq 1$	(3)	$\frac{3}{4} \le p \le 1$	(4)	$\frac{3}{4} \le p \le \frac{13}{16}$	
Q.93		discriminant of the		uadratic equations	are ec	qual and equations	has c	ommon root	
	(1)	are either equal or sum is 4	(2)	have to be always equal	(31)	are either equal or sum is 2			
Q.94		e quadratic equation ible values of p are		px + 48 = 0 has tw	o dist	tinct integer roots t	hen t	he number of	
	(1)	5 ρς 6-4 υ = ρ-4	int.	10	131	12	(4)	14	
Q.95	rotat	ed. If the radius of	the pution p	after another such to pipe is five-fourth or per minute, then th	f imm	ediate right and ri	ght m	ost rotates at	
	(1)	36	(2)	60	(3	3) 64	(4) 24	
Q.96	If tan	$\theta + \cot \theta = 3$ the	-	-cos²θ lcosθ					
	M	√3	(2)	4	(3	3) 7	(4) √5	
	(sini	9 4 1016) (sin 6	1006).		9			
-9	ino+	enie - eres	- (0)	0 30					

8409 400 19

Ω.97	A train meets an accident after moving 30km. Its speed then comes to four-fifth of the original
	one. Consequently runs 45 minutes late. If the accident takes place 18 km farther away it
	would have been 36 minutes. The distance between the two stations is

- (1)
- 150
- (2)
- 200
- (3)
- 240
- (4) 120

If the number with base with base 6 is 15111 then number with base 8 is

- (1)
- 6014
- (2)
- 7125
- (3)
- 4563
- (4) 2164

The total cost price of two items is ₹ 10200 and their selling prices are equal. If one of the item is sold at loss of 12% and and another at a loss of 18%, then the cost price of an item which is sold at a loss of 18% is _

- ₹ 4920
- (2)
- ₹ 5280
- ₹ 6400 (3)
- (4) ₹300

Q.100 The slope of a line 3x - 5y = 8 is _

- (1)

- (2) $-1\frac{2}{3}$
- (3)
- (4)-1.6

100 $\frac{51+}{612}$ $\frac{12}{100}x + \frac{18}{100}y = 10200$

18 408

$$2x + 3\% y = 170000$$

$$x = 17000 - 3y$$

$$2(17000 - 3y) + 184000$$

NATIONAL TALENT SEARCH EXAMINATION 2017-18

LANGUAGE COMPREHENSION TEST STD X

Part III

Time: 11.15 a.m. to 12.00 noon

Marks: 50

Q 1 – 5. Read the following passage and answer the questions given below:

Santosh was rather looking forward to his first journey by the Tube, as the underground railway in London is called. He had heard a great deal about it from his friends who had already been to England. They had all advised him not to travel alone the first time. But Santosh is the kind of person who never listens to anyone's advice. It is not surprising therefore that his first journey by the Tube was not a great success.

Santosh entered the station shortly after five o'clock in the afternoon. This is a bad time to travel in London, both by bus and train, because crowds of people go home from work at this hour. He had to join a long queue of people who were waiting for tickets. When at last his turn came he had some difficulty in making the man at the counter understand the name of the station he wanted to go. The people in the queue behind him began to grumble impatiently at the delay.

Complete the following statements by selecting the most appropriate alternative:

1,	All Santosh's friends advised him to					
	1) Travel always by bus.	2) Never to travel by the Tube.				
	3) Travel alone by the Tube	A) Never travel alone by the Tube.				
2.	The "Tube" is the name given to					
	1) The railway in London	The underground sewage system in London.				
	3 The underground railway system in	London. 4)The railway bridge in London.				
3.	He knew about the Tube because					
	1) He had travelled many times before.					
	2) His parents had been telling him about it.					
	3) His friends who had visited London had told him about it.					
	4) He had read a lot about it in magazine					

4. Sa	ntosh had difficulty in buying the	ticket because					
1)	The clerk had no change						
21	He could not pronounce the nar	me of the station properly.					
3) He did not know where to stand.							
4)	He did not know the name of th	e place.					
5. W	hen Santosh entered the booking	place it was					
1)	Early morning.	2) Late night.					
,31	Late afternoon.	4) Late evening.					
Q. 6 – 10.	Read the following passage and a	answer the questions given below:					
thick volu reference photograp reach, so down the Twenty p Smitha fe Choose th	mes: dictionaries in many langua . She found nothing that was li phy which was one of her hobbie she had to fetch a small ladder in ladder the book she had chosen airs of eyes looked up at her si						
(P)	They were too thick.	2) They were expensive.					
,31	They were on a high shelf.	4) They were with the other readers.					
7. "T	wenty pairs of eyes looked up at	her <u>simultaneously"</u> . Here the underlined word means					
4)	At the same time.	2) From different directions.					
3)	Without blinking.	4) Threateningly					
8. In	order not to disturb the others S	mitha					
1)	Took the longer route.	2) Did not take any book.					
21	Walked on her tiptoes.	4) Walked without shoes.					

	9.	Sm	itha had to make us	se of ato	get her book.	
		1)	A small stick.		2) A small stool.	
		3)	A small plank.		,4) A small ladder.	
	10.	.Sm	itha dropped the bo	ook because		
		1)	She wanted everyb	ody to look at her.	,2) She was nervous.	
		3)	She was angry since	she had to fetch it	. 4) She did not like the b	ook.
1 . :	11-	- 15	. Read the passage a	and answer the que	stions given below:	
	Sa	and	esh told the inspect	or his name and add	dress.	
ea	ne i . I d :el t	eve deci o h	r since my wife died	three years ago. To early because of the	his year, as usual, I went to bad weather. On my wa	er" said Sandesh. I've lived to spend my holidays by the ly back I stopped at the Sur
of t	ere he	l ha	ad left my car. I had	just unlocked the d e for a lift. Before I	oor and was about to get had time to reply he hit	ashed towards the car parl in when a man stepped ou me hard on my head. Afte
	Cl	hoo	se the most suitable	alternative from the	ose given below each star	tement:
	1	1)	Do you think Sand	esh is	On the second	
			1) At a bus stop?	2) In a car park?	3) At the excise station?	AY At the police station?
	1	2)	A person becomes	a widower when h	is	
					3) Both parents die.	4) Only child dies.
	1	3)	Dinner is the meal	that is taken in the		
			1) Morning.	2) Afternoon.	3) Evening	4) Anytime.
	1	4)	Sandesh had to da	sh to the car park b	ecause	
			1) He saw a man o	pening his car.	2) It was dark.	
			-31 It was raining.		4) He was in a hurry.	

	15) The phrase	e out of the shadows	means	
	→ From th	e darkness	2) From the sunli	ght.
	3) From un	der the car.	4) From inside the	e car.
Q.16	three mis	nd the last sentence sing sentences in rar ow in what correct or	ndom order under X, Y ;	oh are given below followed by the and Z. Select from the alternatives
Q.16.				
S -1 V	Vhen I had finish	ed my coffee I went t	o a bookstall.	
5 – 2				
S - 3				
S - 4				
S-5	l made myself co	mfortable in a quiet o	corner and began reading	le .
X - Th	ese would help r	ne pass the time.		
Y - Th	en I went into or	ne of the waiting roon	ns.	
Z - Th	ere I bought a co	ouple of magazines.		
Ch	noose the correct	t alternative from bel	ow:	
(1) XYZ (2) YXZ (3	3) XZY (4) ZXY		
Q.17.				
	S – 1-Vasant pa	assed the time by exa	mining the manager's off	ice in some detail.
	S-2 Z			
	S – 3			
	S-4 ×			
	S – 5-The shelv	es were empty excep	t for a dozen or so refere	nce books.
X -To	Vasant's left ther	re was a book case wi	nich covered the greater	part of the wall.
Y - Clo	se to the window	w there were three ch	nairs arranged around a lo	ong table.
Z-On	his right there w	as a large window he	avily curtained.	
Choos	e the correct alt	ernative from below:		
(1)	YZX	(2) XZY	(3) ZYX	(4) ZXY
		2000	N. (1.50 = 1.1)	VARIATION

Q.18 – 19.	The second sentence is missing in the following two sequences. Name the most appropriate one from those given below:				
Q. 18.	18. A. Heat flows from a body at a higher temperature to a body at a lower te				
	В				
	C. These are conduction, convection an	d radiation.			
	(1) There are many principles of this	behavlour .			
	(2) There are other ways of conducting heat.				
	(3) There are three ways in which heat can flow from one object to another.				
	(4) There are different situations where this is found.				
Q. 19.	A. When we do not treat people equally	or with respect we are indulging in discrimination			
	В	r manifold in discinning tion			
	 Discrimination usually takes place distinction. 	when we treat someone differently or make			
	 It happens when we or organizati 	ons incite people.			
	2) It happens when people or organizations act on their prejudices.				
	It happens when certain groups can't get along with others.				
	4) It happens when people are busy with their lives.				
Q. 20 – 27.	Here are some idiomatic phrases. Choos given idiomatic phrases:	se the alternative closest in meaning to each of the			
	20. It caught my eye				
	1) My eye started hurting	2) Something went into my eye.			
	My eye was jaundiced.	A) It attracted my attention.			
	21. One should never lose heart.				
	1) Get a heart attack	2) Be discouraged.			
	3) Donate your heart.	4) Have mercy on others.			
	22. She went red in the face				
	A) She felt embarrassed	2) She felt sick.			
	3) She felt tired.	4) She felt sad.			

1) They block	 They blocked his path. 		2) They gave him a special welcome.		
3) They allow	ved him to sleep.	4) They made	fun of him.		
24. There was a	big hue and cry over his	disappearance.			
	s loud weeping.	2) There was inquiry.			
/3) There we	re angry protests.	4) There we	re complaints.		
25. He almost ju	umped out of his skin.				
1) He was d	oing yoga.	2) Suddenly	he was frightened.		
3) He under	went an operation.	4) He was cool and calm.			
26. I could not	stomach the slight.				
1) I could no	ot digest the food.	I could not make myself full.			
,3) I could no	3) I could not bear the insult.		ear the weight.		
27. She had poi	se beyond her years				
1) She was	1) She was rich and powerful.		/2) She was old but good looking.		
3) She was	calm and confident.	4) She was attractive but short.			
Q. 28 – 32 Fill in the blanks			below each question:		
28. He wrote th	e sentence but certain w	ords were wrongly			
1) spelled	2) spell	3) spelling	4) spelt		
29. The river _	flows close to the c	ity is flooded.			
1) whose	.2] which	3) who	4) when		
30. The bird fle	w my head.				
1) above	2) on	31 over	4) through		

23. They laid the red carpet for him.

31. The task is	than it appears		
1) more hard	2) as hard	3) hard	A) harder
32. We will not reac	h in time for the flight _	we take a taxi.	
Hunless	2) until	3) if	4) in case

33 – 42 In the following passage there are certain blanks that have been numbered. Fill each of these blanks by selecting the correct alternative from those given below:

After lunch the two boys set off (33) the beach (34) lay beyond the headland. It was like discovering a new world. They (35) innumerable caves, half expecting in (36) to come across smugglers there. They looked for fish and (37) sea creatures in the small pools among the rocks. (38) examined all the objects which had been washed up by the (39) and lay upon the beach. In this way the afternoon passed off (40) and the sun was already beginning to set (41) they reluctantly decided to (42) their way homewards.

331) with	2) by	3) along	4) on
34 1) who	.2) which	3) whichever	4) whose
35 1) were exploring	2) would explore	-31 explored	4) will explore
36. – 1) every	21 some	3) any	4) each
37 X other	2) many	3) none	4) any
38. – 1) We	2) You	3) He	4) They
39. – X Waves	2) Fish	3) Tide	4) Boats
40. – 1) Slowly	2) Quickly	3) Lazily	4) uneventfully
41. – 1) As	27When	3) Because	4) Since
42-1)Go	2) Make	3) Come	4) Return

Q 43 - 46 Out of the given alternatives, choose the word which best fits each of the following descriptions:

43. A word which means 'walking slowly through the water'

1) swimming 2) crossing 3) wading 4) floating
44. A word which means 'hardworking'
1) active 2) industrious 3) smart 4) quick

4	5. A word which mea	ans 'oral examination'		
	1) Discussion	2) debate	3) Dialogue	_4) interview
4	6. A word which mea	ns 'writing about the life	of a person'	
	1) Biography	2) Autobiography	3) Story	4) Biodata
Q. 47 – 50	Complete each of the given below:	e below given sentences	by choosing the cor	rect alternative from those
	47. We have to	to the hanging time	5.	
	1) adopt	,2) adapt	3) adept	4) add
	ALICE SEEDING FOR THE SHEET		Y.	
	48. The winner was	paid rich by the	Chief Guest.	
	1) complicates	2) complements	3) completions	4) compliments
	49. Let us introduce	a new in our s	ervice.	
	1) rite	2) right	3) write	4) ride
	50. Money is the	cause of all evil.		
	1) rout	21 root	3) route	4) rude

