



# ALL INDIA TALENT SEARCH EXAMINATION

2019

Class

Time Allowed: 90 Minutes 5 Maximum Mark: 50

This Test Booklet contains 10 pages. Do not open the Test Booklet until you are asked to do so. *Important instructions* 

- 1. The Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars carefully with blue/black ball point pen only.
- 2. This question paper contains 50 multiple choice questions each of one mark. The question paper is divided into two sections, **Section A** and **Section B**
- 3. Section A is Scholastic Aptitude Test (SAT), contains 30 questions. This section covers Mathematics & General Science
- 4. Section **B** is **M**ental **A**bility **T**est **(MAT)**, **C**omputer **A**wareness and **G**eneral **K**nowledge, contains 20 questions.
- 5. Each question should be answered by **darkening** the appropriate circles (A, B, C or D) with a **blue** or **black ball pen.**
- 6. All questions are compulsory. There will be no negative marks for wrong answer.
- 7. Answer recorded once in the answer sheet cannot be altered.
- 8. All rough works should be done only in the space provided for **rough work** in this question paper.
- 9. Calculator is not permitted in the examination hall.
- Candidate should write his / her name in the space provided for the purpose.

Candidate's Nar	ne :														
Roll Number	:														
Candidate's Signature								Ir	vigil	ator'	s Si	gnati	ıre		

## **SECTION A**

#### **SCIENCE (Question No 1 to 10)**

1	Which one of the following is NOT an excretory organ of our body?									
		[A] Kidney	[B] Skin							
		[C] Heart	[D] Lungs							
2	If a person's of	liet consists of rice, dal and curd	s only, he is likely to suffer from a deficiency							
		[A] Vitamins	[B] Fats							
		[C] Proteins	[D] Starch							
3	Organisms that require oxygen must transfer molecules of oxygen from their environment to their cells. In humans, which two systems are directly involved in the transfer of oxygen from the environment to their cells?  [A] Circulatory and nervous  [B] Respiratory and digestive  [C] Digestive and nervous  [D] Respiratory and circulatory									
4	Arun studied	two groups of things shown in th	ne table below.							
		Biodegradable	Non-Biodegradable							
		Fruit peel	Gold chain							
		Meat	Poly bag							
		Dairy products	Aluminium can							
	He made following inferences. Which one of the inferences is correct?  [A]All non-biodegradable objects are hard									
	[B] All living things are non-biodegradable									
		[C] Biodegradable obje	cts come only from animals							
		[D] Most things obtained	ed from living organisms are biodegradable							
5			slowly. If the globe could rotate only at the gwould each complete rotation take?							
		[A] 30 days	[B] 60 minutes							
		[C] 24 hours	[D] 365 days							

A large area of forest was destroyed completely by forest fire. Which of the following 6 statement holds true regarding it? (i) More soil will be eroded as the soil is not protected by trees from wind and rain (ii) The land will have more fresh air as there are lesser trees to take in oxygen (iii) Wildlife will inhabit the cleared area because more space is available now (iv) New trees will grow quickly to replace the burnt ones as the ash of the burnt trees will make the soil more fertile [A] (i) only [B] (i) & (iv) only [C] (i), (ii) & (iv) only [D] (i), (ii), (iii) & (iv) 7 Four items are placed at same distance from a magnet. Which one of the objects will be the easiest for the magnet to pull? [A] a 1-gram piece of paper [B] a 2-gram eraser [C] a 3-gram steel paper clip [D] a 4-gram iron nail 8 Which one of the following is a change of state due to heat gain? [A] Water becoming ice cubes in an ice tray [B] Ice becoming a puddle of water [C] water in a pond becoming solid during winter [D] Steam becoming water droplets on a metal lid 9 How would you test the permeability of soil? [A] By rolling some soil between your fingers [B] By waiting for rain and then observing the soil [C] By measuring how much water you pour into pots of different soils and comparing how much drains away [D] By watering the soil and letting it drain onto litmus paper Carbon dioxide is different from sea water as 10 [A] It has no definite mass [B] It has no definite shape [C] It has no definite volume [D] All of these

MAT	HEMATICS (Question No 11 to 30)	
11	Predecessor of 100,000,000is	
	[A] 99999999	[B] 9999999
	[C] 999999	[D] 90000099
12	In the given number <b>890436</b> , if you write 0 in be less than this given number?	place of 4, by how much the resulting number
	[A] 40	[B] 400
	[C] 436	[D] 36
13	The common factors of 56 & 44 are	
	[A] 1, 2, 4	[B] 1, 2, 11
	[C] 1, 8	[D] 2
14	Odd one out	
	[A] 1:3	[B] 2:6
	[C] 2 : 5	[D] 3:9
15	What is the solution of the expression 3 X 10	+ 9 X 2
	[A] 48	[B] 78
	[C] 84	[D] 114
16	Which one of the following number is NOT d	ivisible by 3?
	[A] 6741	[B] 776631
	[C] 1529	[D] 150481
17	6342 X 5 X 10 X 0 X 8 = ?	
	[A] 0	[B] 459920
	[C] 2299600	[D] 292960
18	Which of the following number is divisible by	9?
	[A] 5632103	[B] 497365
	[C] 867105	[D] 26905
19	Arun bought 4 soap bars weighing 125g and 3 weight of the soap and detergents is	3 detergent cakes weighing 280g each. The total
	[A] 1kg 590g	[B] 1kg 840g
	[C] 1kg 240g	[D] 1kg 340g
20	The number 32.736 correct to two places of de	ecimal is
	[A] 32.70	[B] 32.740
	[C] 32.746	[D] 32.730

The following model is shaded to represent  $2\frac{3}{10}$ 



Which decimal does the model represent?

22 L C M of 24, 36 and 40 is

A tailor had a piece of cloth 8 m long. He cut 3 smaller pieces of cloth each  $\frac{3}{4}m$  m from it. How many metres of cloth were left?

[A] 
$$\frac{1}{4}$$
 m

[B] 
$$\frac{3}{4}m$$

[C] 
$$2\frac{1}{4}m$$

[D] 
$$5\frac{3}{4}m$$

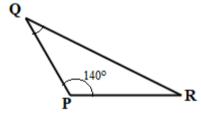
24 The greatest number that will divide 37, 50, 123 leaving remainder 1, 2 and 3 respectively is

In the triangle given below, angle P measures 140°. Angle Q has the same measure as angle R. What is the measure of angle Q?



$$[B] 40^{\circ}$$

$$[C] 70^{\circ}$$



What is the value of the following expression?

$$50 + [100 - {35 - (30 - 20)}] \times 2$$

27 If your present age is P, then your age 6 years ago was

$$[A] P - 6$$

$$[B] 6 - P$$

$$[C] P + 6$$

In a map, 1 cm is used to represent 100 km. Find the distance between the two places in the map if the actual distance between them is 200 km.

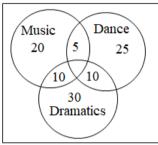
[A] 20 cm

[B] 10 cm

[C] 2 cm

[D] 2 m

A group of 100 students were asked which hobby they like. The Venn diagram shows the data



What is the ratio of number of students who like both music and dance, but not dramatics to the number of students who likes only dramatics?

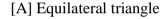
[A] 6:1

[B] 1:6

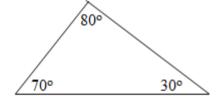
[C] 1:3

[D] 3:1

Name the type of triangle shown in the figure below



- [B] Isosceles triangle
- [C] Right triangle
- [D] Scale triangle



### **SECTION B**

Which one of the following is not related to agro based industry?

[A] Sugarcane

[B] Cotton

[C] Tea

[D] Wheat

Which one of the following is not a source of energy'?

[A] Coal

[B] Petroleum

[C] Fire

[D] Firewood

Which launch vehicle was used for launching Chandrayaan 2?

[A] ASLV

[B] PSLV

[C] GSLV

[D] SLV

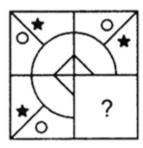
34	Which (	one of t	he follo	wing ic	the stat	ale food	l crop o	of India?				
54	Willeli	hich one of the following is the staple food crop of [A] Wheat										
			[C] Corn									
			·	]			[D] Jowar					
35	Pick ou	t the od	d one									
			Te	acher,	Princi	pal, Si	Reader,	Professor	•			
			[	A] Stu	dent			[B] Professo	or			
			[	[C] Prir	ncipal		[D] Reader					
36	Anisha is living in Chennai. She planned to visit Delhi in her midterm holiday. In which direction she need to travel?											
	[A] South					[B] North West						
			[	[C] Sou	th West	t		[D] North East				
37	Choose	the figu	are which	ch is di	fferent f	rom the	e rest.					
	V W MW											
	1 2 3 4											
				[A] 1		[B] 2						
20	[C] 3 [D] 4											
38												
	B, D, F, I, L,											
				[A] R [C] T			[B] S [D]U					
39	Replace	e the au						<u> </u>				
37	replace	M	14	0	16	?		[A] Q 9	[B]	Q		
		E	6	G	8	?		[C] Q	[D]	8		
40	Replace the question mark.											
	Г		1				1					
		3	9		27	81	?					
	[A] 243						[B] 729					
				[C] 423		[D] 279						

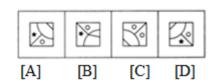
- 41 Replace the question mark:
- 1, 5, 13, 25, ?
- [A] 41

[B] 44

[C] 23

- [D] 55
- Which answer figure will complete the question figure?

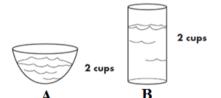




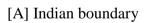
- Find the number of triangles in the given figure.
  - [A] 16
  - [B] 18
  - [C] 19
  - [D] 21



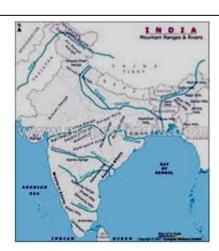
Two cups of water were placed into each of the open containers. Predict what the water levels will be tomorrow.



- [A] The same amount of water will be left in both.
- [B] There will be more water left in container B than in A.
- [C] There will be more water in container A than in B.
- [D] They will both still have two cups of water.
- This map is best to explain:



- [B] Rivers of India
- [C] Indian states
- [D] Neighbors of India



46	Which one of the fol	llowing is not an integral part	of a computer?						
		[A] CPU	[B] Monitor						
		[C] Mouse	[D] UPS						
47	All of the following are examples of storage devices except								
		[A] Hard disk drives	[B] Printers						
		[C] Floppy disk drives	[D] CD drives						
48	Which key combinat	tion helps you to undo last acti	on performed?						
		[A] Ctrl + Y	[B] Ctrl + Z						
		[C] Ctrl + X	[D] Ctrl + Y						
49	What type of keys ar	re 'ctrl' and 'shift'?							
		[A] Adjustment	[B] Function						
		[C] Modifier	[D] Alphanumeric						
50	Devices used to trans	smit data over telecommunica	tions lines.						
		[A] Drives	[B] Drive bays						
		[C] Modems	[D] Platform						

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#### SPACE FOR ROUGH WORK