A Specially Designed Initiative to Encourage Young Talent by



TALLENTEX 2018 : (08, October 2017)

PAPER CODE



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# Duration: 2 Hrs. | Maximum Marks: 320

 Answer Sheet No.
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Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.

**Things NOT ALLOWED in EXAM HALL :** Blank Paper, clipboard, log table, slide rule, calculator, camera, mobile and any electronic or electrical gadget. If you are carrying any of these, then keep them at a place specified by invigilator at your own responsibility.

## INSTRUCTIONS

- 1. This Booklet is your Question Paper. DO NOT break seal of Booklet until the invigilator instructs to do so.
- 2. Fill your TALLENTEX Roll No. & Answer Sheet No. in the space provided on the cover page.
- 3. Carefully fill your **PAPER CODE** and present **CLASS** in space provided **(Serial No. 6 & 12)** of optical response sheet.
- 4. Please make sure that paper you received is of your class only.
- 5. Please make sure that the **Paper Code** Printed on the **Test Booklet Cover Page** and **Inner Pages** are the same. In case of discrepancy, the candidate should immediately report the matter to the Invigilator for replacement of Test Booklet.
- 6. The Answer Sheet is provided to you separately which is a machine readable Optical Response Sheet (ORS). You have to mark your answers in the ORS by darkening bubble, as per your answer choice, by using black or blue ball point pen.
- 7. After breaking the Question Paper seal, check there are **12 pages** in the booklet. This Question Paper contains 80 MCQs with 4 choices (Subjects: Physics: 12, Chemistry: 11, Biology: 12, Maths: 25 & Mental ability: 20).
- 8. Answer once marked by pen cannot be cancelled.
- 9. Each correct answer carries 4 marks. (There is no negative marking)
- 10. If you are found involved in cheating or disturbing others, then your ORS will be cancelled.
- 11. Do not put any stain on ORS and hand it over back properly to the invigilator.
- 12. You can take along the question paper after the test is over.

## **SECTION - A : PHYSICS**

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This section contains **12 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.



Wall

5. Which of the following sources of energy has not been shown in given figure?



7. Four students volunteered to help a librarian move containers of library materials. The numbers in the bars show the mass of each container. The results for each student helper are shown in the table.

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	Helper		Result of Lifting F	orce							
	W	The containe	r was raised 1 m to a s	shelf.							
	X	The containe	r was raised 2.5 m to	the top of a cabinet.							
	Y	The containe	r was raised 0.5 m to	a tabletop.							
	Z	The containe									
	Based or	this informa	ork on a container?								
	(1) Helpe	er W	(2) Helper X	(3) Helper Y	(4) Helper Z						
		season come	s in between winter	and summer-							
	(1) Autu	mn	(2) Spring	(3) Rainy	(4) None of these						
	The movement of earth on its axis is called(i) and movement of earth around sun is called(ii)										
	Choose the correct option to fill in the blanks.										
	(1) (i) rotation, (ii) revolution (2) (i) revolution, (ii) rotation										
	(3) (i) ro	tation, (ii) vil	oration	(4) (i) vibration, (ii	i) rotation						
).	Which of	f the followir	ng energy conversion	is incorrect?							
	(1) Elect	ric Bulb $\rightarrow$ E	Electrical energy to lig	ht energy							
	(2) Batte	$ry \rightarrow Chemic$	cal energy to electrica	l energy							
	(3) Photo	osynthesis $\rightarrow$	Chemical energy to l	ight energy							
	(4) Gene	rator $\rightarrow$ Mec	hanical energy to elec	ctrical energy							
l.	What is	the danger w	hen there is a large an	mount of unstable snow	on a steep mountain slope ?						
	(1) Aval	anche	(2) Dense fog	(3) Mud slide	(4) Flood						
2.	Which of	f the followin	g is not a unit of mas	ss ?							
	(1) Kilog	gram	(2) Quintal	(3) Pound	(4) Mile						
			SECTION-B	<b>CHEMISTRY</b>							
his	section co	ontains 11 Mu	Iltiple Choice Questi	ons. Each question has	four choices (1), (2), (3) and (4)						
		ONLY ONE									

13.	Which is NOT a state of	of matter ?		
	(1) Gelatinous	(2) Solid	(3) Liquid	(4) Gas
14.	Copper wire is often w	rapped in plastic. Plastic	e material is a good	
	(1) electromagnet	(2) insulator	(3) circuit	(4) current
15.	Which of the following	is used to know how c	old or hot the weather i	s ?
	(1) wind	(2) precipitation	(3) humidity	(4) temperature

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(1) marble (2) igneous rock (3) volcanic dust (4) sedimentary rock

- 17. Continual process in which a rock is changed into an another rock is called
  (1) rock sedimentation (2) sorting of rocks
  (3) accumulation of rocks
  (4) rock cycle
- 18. Water vapour is the ..... state of matter ?
  (1) solid
  (2) gaseous
  (3) liquid
  (4) all are correct
- **19.** Study the given diagram and answer the following question.



Which of the following best represent W, X, Y and Z ?

	W	X	Y	Z			
	(1) Rock	Iron	Wood	Book			
	(2) Eraser	Jewellery	Wood	Rock			
	(3) Umbrella	Mirror	Linen	Wood			
	(4) Polybags	Pen	Rock	Wood			
20.	Wind speed is measure	ed by					
	(1) Thermometer		(2) Anemometer				
	(3) Barometer		(4) Potometer				
21.	The substance in a roc	k that is of no use to u	s is called	·			
	(1) gangue	(2) mineral	(3) ore	(4) metal			
22.	Condensation is :						
	(1) conversion of solid	l into gas.	(2) conversion of solid	l into liquid.			
	(3) conversion gas into	) liquid.	(4) conversion liquid into solid.				
23.	When solid is converte	ed into liquid the proces	s is called ?				
	(1) Melting	(2) Freezing	(3) Boiling	(4) None of these			

#### CLASS-V / Paper Code - A

#### **SECTION-C: BIOLOGY**

This section contains 12 Multiple Choice Questions. Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

24.	They	do	not	have	chlorophyll	
-----	------	----	-----	------	-------------	--

- (1) Fungi (2) Mushroom
- (3) Both (1) and (2) (4) Algae

25. Which of the following are essential for body growth and formation of new cells?

- (3) Minerals (1) Carbohydrates (2) Protein
- 26. The types of joint at X and Y are

(1) X = ball and socket, Y = hinge

(2) X = hinge, Y = ball and socket

- (3) X = ball and socket, Y = fixed
- (4) X = fixed, Y = hinge
- 27. Which of the following is the main role of flowers found in most flowering plants?
  - (1) To take in air

(3) To absorb nutrients

- (2) To produce seeds (4) To protect the stem
- Which of the following adaptations is likely to be found in palm trees? **28**.



- (1) It has flat green stem to store water and prepare food
- (2) Stem is thin and flexible so that it can bend along with the water movement.
- (3) Trees are normally cone-shaped and have needle-shaped leaves.
- (4) Leaves have deeply incised or serrated margins to reduce the effect of wind.
- 29. Which of the following animal lay largest egg?

	(1) Shark	(2) Ostrich	(3) Octopus	(4) Elephant
30.	Which one of the	following plants has a	lark red leaves ?	
	(1) Croton	(2) Cactus	(3) Mango	(4) Dodder





(4) Vitamins



**31.** The picture shows a red-eyed tree frog. These frogs are bright green with red eyes, blue stripes and orange feet. They live on trees in the rainforest and feed on small insects. Which one of the following adaptations helps it to feed ?



- (1) It has soft skin without scales.
- (2) It has a long sticky tongue.
- (3) It camouflages itself when sleeping by closing its bright eyes.
- (4) It camouflages itself when sleeping by tucking its feet beneath its body.
- **32.** A carnivore with stripes on its body moves very fast while catching its prey. It is likely to be found in :
  - (1) polar regions (2) tropical rainforests (3) oceans (4) deserts
- **33.** Which one of the following gives birth to young ones ?



- 34. Which of these seeds is dispersed by explosion ?
  (1) Cotton
  (2) Madar
  (3) Castor
  (4) Xanthium
- **35.** Which of the following adaptations is found in the desert plant shown below?



- (1) Flowers only open during the heat of the day
- (2) The leaves are modified to spines to prevent water loss
- (3) The stem becomes woody to stop animals from eating them
- (4) The broad leaves store water

## **SECTION-D : MATHEMATICS**

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This section contains **25 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

	DI WIIICH ONLI ON			
36.	How many times d	loes the digit '1' appear	in number from 1 to 1	00 ?
	(1) 18	(2) 19	(3) 20	(4) 21
37.	76 is a factor of	·		
	(1) 228	(2) 196	(3) 1514	(4) 218
38.	What fraction is sh	aded in the given figure	2 ?	
			$\wedge$	
	(1) $\frac{1}{3}$	(2) $\frac{1}{2}$	(3) $\frac{1}{4}$	(4) None of these
	3	2	(3) 4	
39.	The sum of place	value of 5 and face valu	e of 2 in 15028907 is	·
	(1) 5,000,002	(2) 50,000,002	(3) 5,020,000	(4) 20,005
40.	A full teapot can fi	ill up 5 cups. How many	cups can 3 such teapo	t fill ?
	(1) 15	(2) 16	(3) 18	(4) 20
41.	If I am a six digit	number.		
	(i) Digit of lakhs p	lace and hundreds place	is the greatest digit.	
	(ii) Place value and	d face value of the digit	on thousands place is s	same.
	(iii) Digit on ten th	nousands place is double	of digit on ones place.	
	(iv) Digit on ones	place is a prime number	that is double of digit	on tens place.
	(1) 940912	(2) 920942	(3) 910921	(4) 920912
42.	Which of the follo	wing 3-D shapes has nu	mber of faces and num	ber of vertices are equal?
	(1) Pyramid	(2) Sphere	(3) Prism	(4) Cylinder
43.	The number of prin	me factor for 2016 is		
	(1) 8	(2) 3	(3) 4	(4) 7
44.	What is the weight	of the apple ?		
			25g	
		🖢 75g	100g100g	
	(1) 250 g	(2) 150 g	(3) 75 g	(4) 125 g
4-	c c			
45.	Place value of "0"			
45.	c c	in 36,04,85,593 is (2) lakhs	(3) zero	(4) crores

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16.	The number of f	actors of 54 are						
	(1) 6	(2) 8	(3) 2	(4) 10				
17.	If a line intersect of point of inters	-	parallel lines, then we w	will get how many maximum number				
	(1) 0	(2) 1	(3) 2	(4) 4				
8.	Count the number	er of squares in the g	iven figure.					
		]						
		-						
	(1) 9	(2) 8	(3) 5	(4) 11				
9.	Find the perimet	er of a rectangular fie	eld which is 72 m long a	and 68 m wide ?				
	(1) 364 m		(2) 280 m					
	(3) 3640 m		(4) 2800 m					
50.	String A is 42.8	m long. It is 13.68 m	1 longer than string B. W	string B. What is the length of string B?				
	(1) 56.48 m	-	(2) 28.16 m					
	(3) 29.12 m		(4) 25.20 m					
51.	How many line s	segments are there in	the given figure :					
		• A	B C	D				
	(1) 3	(2) 4	(3) 5	(4) 6				
52.	HCF of 18, 27 a	nd 45 is –						
	(1) 18	(2) 27	(3) 45	(4) 9				
53.	A field is in the of cows.	form of a rectangle 2	$8 \text{ m} \times 8 \text{ m}$ in dimension	ns. Find the area available for grazing				
	(1) 124 m <sup>2</sup>		(2) 110 m <sup>2</sup>					
	(3) 220 m <sup>2</sup>		(4) 224 m <sup>2</sup>					
54.	A Dettol bottle c	ontains 500 ml of De	ttol. How much Dettol i	s contained in 12 dozen such bottles				
	(1) 70 litres		(2) 60 litres					
	(3) 72 litres		(4) 84 litres					
55.	Three square til (not up to the sc		placed as given below	. The perimeter of resultant figure				
	(1) 75 cm		(2) 20 cm					



56. How many angles measures can be seen in the picture ?



57. Parth and Amrita bought aam papad (dried mango slice) from a shop. Their pieces looked like these



# **SECTION-E : MENTAL ABILITY**

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This section contains **20 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

61.	Gaurav walks 20 meters towards North. He then turns left and walks 40 meters. He again turns lest and walks 20 meters. Further, he moves 20 metres after turning to the right. How far is he from his original position :										
	(1) 20 metres		(2) 30 metres								
	(3) 60 metres		(4) None of these								
62.		estion, arrange the give choose the correct seque	_	ce in which they occur in the iven below.							
	(a) Oversharing										
	(d) Outermets (e) Omnishambles										
	(1) a, b, c, d, e	(2) c, e, a, b, d	(3) e, b, d, a, c	(4) c, a, b, e, d							
63.	A watch reads 03 : 0	00. If the minute hand p	oints East, in what dired	ction will the hour hand point:							
	(1) South-East	(2) South	(3) North	(4) North-West							
64.	In English alphabet s	series which letter is 8th	to the left of 15th from	the left end ?							
	(1) E	(2) F	(3) G	(4) H							
65.	Insert the missing nu	mber in the given series	S.								
	7, 9, 15, 33, 87,	·									
	(1) 239	(2) 249	(3) 259	(4) 269							
66.	A man walks 5 km toward south and then turns to the right. After walking 3 km he turns to the left and walks 5 km. Now in which direction is he from the starting place?										
	(1) West	(2) South	(3) North-East	(4) South-West							
67.		word "CHIPMUNKS" e after the rearrangemen	<b>e</b> 1	ical order, which one will be							
	(1) M	(2) I	(3) N	(4) K							
		m figures. Following b		four figures marked A, B, C arked 1, 2, 3 and 4 called the							

and D called problem figures. Following by four other figures marked 1, 2, 3 and 4 called the answer figures. Select a figure from amongst the answer figures which will continue the same series.



- **70.** Girish is fifth from the left and Prajawal is twelfth from the right end in a row of children. If Prajawal shifts by three places towards Girish, he becomes tenth from the left end. How many children are there in the row?
  - (1) 21 (2) 24 (3) 23 (4) 22

Directions for (71 & 72): Study the diagram given below and answer each of the following questions.

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- 71. How many persons who take tea and wine but not coffee ?
  - (1) 20 (2) 17 (3) 25 (4) 15
- 72. How many persons are there who take both tea and coffee but not wine ?(1) 22(2) 17(3) 7(4) 20
- 73. If water is called black, black is called tree, tree is called blue, blue is called rain, rain is called pink and pink is called fish in a certain language, what is the colour of the sky called in that language ?
  (1) Blue
  (2) Fish
  (3) Rain
  (4) Pink
- **74.** How many 5s are there in the following number sequence which are immediately preceded by 7 and immediately followed by 6?

 Terms: 7 5 5 9 4 5 7 6 4 5 9 8 7 5 6 7 6 4 3 2 5 6 7 8

 (1) 1
 (2) 2
 (3) 3
 (4) 4

**75.** Choose the correct mirror image of the given figure.



**76.** Three of the following four are alike in a certain way and so form a group. Which is the one that does not belong to the group

(1) Rose (2) Marigold (3) Lilly (4) Apple

(4)



(1)

(2)

77. In the following question, a figure marked (X) is followed by four figures (1), (2), (3) and (4) which show that possible water image of figure (X). Choose one out of these four figures which shows the correct water image of the figure (X).





#### SPACE FOR ROUGH WORK

ANS	ANSWER KEY : 08-10-2017 CLASS – V CODE : A														
Q.No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	4	2	4	4	4	3	4	2	1	3	1	4	1	2	4
Q.No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	2	4	2	2	2	1	3	1	3	2	1	2	4	2	1
Q.No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	2	2	1	3	2	4	1	3	1	1	1	1	2	2	3
Q.No.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	2	3	3	2	3	4	4	4	3	4	4	1	4	4	3
Q.No.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	3	3	2	3	2	4	1	3	1	2	2	3	3	1	2
Q.No.	76	77	78	79	80										
Ans.	4	3	2	1	2										