A Specially Designed Initiative to Encourage Young Talent by



TALLENTEX 2018 : (15, October 2017) PAPER CODE

# U

in Maria





## Duration: 2 Hrs. | Maximum Marks: 320

 Answer Sheet No.
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 6
 Image: Comparison of the second second

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 **16 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.

#### CLASS-VI / Paper Code - U

#### **SECTION - A : PHYSICS**

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

- The student is using a model to answer a question. Which question could the model best answer? 1.
  - (1) How many moons does Jupiter have?
  - (2) What causes day and night?

TALLENTFX

- (3) Does Earth have any moons?
- (4) Does Earth revolve around the Sun?
- 2. Which is the order from smallest to largest?
  - (1) Universe, Galaxy, Star, Planet
  - (3) Star, Universe, Planet, Galaxy



(2) Ruler and thread

- (2) Planet, Star, Galaxy, Universe
- (4) Galaxy, Planet, Universe, Star
- 3. Which of the following object(s) can be used to measure the length of the following curved object?



- (1) Ruler and watch
- (3) Watch and thread (4) Only ruler
- 4. Which of the following objects is non-luminous?
  - (1) Sun (2) Star (3) Chair (4) Bulb
- 5. Which of the following diagrams best represents how light travels from a flashlight to a piece of paper that is 40 cm away?



- 6. The image produced by a pin-hole camera is always
  - (1) inverted, coloured
    - (3) erect, coloured
- 7. Which of the following option shows the correct order of length in decreasing magnitude?
  - (1) 1 kilometre, 1 decimetre, 1 metre, 1 decametre
  - (2) 1 kilometre, 1 decametre, 1 metre, 1 decimetre
  - (3) 1 decametre, 1 metre, 1 decimetre, 1 kilometre
  - (4) 1 decimetre, 1 metre, 1 decametre, 1 kilometre
- 8. The motion of the ball shown in the picture below is
  - (1) circular motion
  - (2) rotatory motion
  - (3) curvilinear motion
  - (4) oscillatory motion
- 9. When the North Pole is tilted toward the Sun, it is
  - (1) summer in the Northern Hemisphere
  - (3) daytime in the Northern Hemisphere
- **10.** Choose the incorrect option.
  - (1) Car tyre & Road Friction force
  - (2) Iron & Magnet Magnetic force
  - (3) Falling apple and the Earth Gravitational force
  - (4) Ships & Water spring force
- **11.** A force is a push or a pull.



Which of the following pictures show a pulling force?

(1) 1;4	(2) 1;2;5
(3) 2 and 5 only	(4) 2;3;5



1- C

(2) inverted, black & white

(4) erect, black & white

- (2) winter in the Northern Hemisphere
- (4) daytime in the Southern Hemisphere



- TALLENTEX
- Rohit rubbed his ruler quickly against the edge of a piece of wood. The wood and the ruler became 12. warm. The heat that was produced is caused by
  - (1) combustion
  - (2) electricity
  - (3) sunlight
  - (4) friction



#### **SECTION-B** : CHEMISTRY

This section contains 11 Multiple Choice Questions. Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

- Which of the following statements is/are correct ? 13.
  - (1) Intermolecular forces of attraction in solids are maximum.
  - (2) Intermolecular forces of attraction in gases are minimum.
  - (3) Intermolecular spaces in solids are minimum.
  - (4) All of the above.
- 14. Increasing levels of carbon dioxide are causing global warming. Man contributes to the increasing levels by .....

(4) all of the above

(1) cutting down trees

- (2) setting up more factories and industries
- (3) playing more vehicles on the road
- 15. What material should be used to make the lid opener?



	(1) Rubber	(2) Metal	(3) Fabric	(4) Plastic
16.	The mixture of sand, sa	alt and water can be sepa	arated by	
	(1) sublimation		(2) filtration	
	(3) evaporation		(4) filtration followed l	by Evaporation
17.	Cooking oil can be con	nverted into vegetable g	thee by the process of	
	(1) oxidation		(2) hydrogenation	
	(3) distillation		(4) crystallisation	
18.	Which of the following	g should come in the en	npty box given below?	
		Cotton fibres $\rightarrow$ ?	$] \rightarrow$ yarns or threads	
	(1) Spindle	(2) Retting	(3) Ginning	(4) Handloom

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19.	Which of the followin	g statement is not true	?	
	(1) Jute is the outer c	overing of coconut.	(2) Fabric is made	from yarn.
	(3) Polyester is a synt	hetic fibre.	(4) Silk fibre is obt	ained from silk worms.
20.	Out of the following,	which is the densest st	ate of matter ?	
	(1) Solid	(2) Liquid	(3) Gas	(4) Plasma
21.	Paper can be recycled	l. Which of the follow	ving things can be made	e after recycling paper?
	(1) Brown paper	(2) Cardboard	(3) Plastic	(4) Both (1) and (2)
22.	In sedimentation proce	ess, the clear liquid ab	ove the settled heavier	component is called
	(1) Solvent	(2) Solution	(3) Supernatant liqu	uid (4) Sediment
23.	Sugar dissolves in wa	ter to form sugar solut	ion. Name the solvent.	
	(1) Sugar		(2) Water	
	(3) Both sugar and wa	ater	(4) None of these	
		SECTION	-C : BIOLOGY	
<u>24.</u> 25.	A bird has just hatched cycle of the bird? (1) Birth The picture given sho the trees of tropical for following adaptations (1) Lemurs have soft, (2) Lemurs have stron (3) Lemurs have small (4) Lemurs have shar	<ul> <li>correct.</li> <li>d from an egg. Which</li> <li>(2) Death</li> <li>ows a lemur. Lemurs a</li> <li>orests. Lemurs eat fruit</li> <li>most likely help lemu</li> <li>grey fur that keeps the</li> <li>ng, long tails that can</li> <li>ll, black eyes that allo</li> <li>p, razor-like teeth that</li> </ul>	of the following stages 1 (3) Growth are mammals that live h it and insects. Which of rs to live in tropical trea hem warm in cool weat be curled around branc w them to see well at n t can be used to tear ap	(4) Reproduction (4) Reproduction igh up in the es? her. ches. ight. art food.
26.	Select the incorrect of (1) Scurvy : Vitamin (3) Goitre : Iodine : I	ption. C : Amla odized salt	(2) Rickets : Vitam (4) Anaemia : Iron	in D : Citrus fruits : Spinach
27.	Use the picture below	to answer the given	question.	
	-		Heart	

What does the heart do for the body?

- (1) It takes oxygen from the environment.
- (3) It removes waste from the blood.
- (2) It turns food into energy.

(4) It moves blood through the body.

28. Which of the following are summer vegetables ?

a. Pea, b. Wheat, c. Radish, d. Okra, e. Gourd

- (1) a and b
- (2) a, b and c
- (3) a, b and d
- (4) d and e
- **29.** If we eat too much food with lots of energy each day, the excess food may be stored as fat and we will gain mass. Look at the table below and then decide which two foods you should eat in small amounts?

Type of food	Energy (in kJ) per 100g
lettuce	20 kJ
chips	1022kJ
yoghurt	96kJ
pasta	752kJ
grilled chicken breast	670 J

- (1) Lettuce and grilled chicken breast
- (2) Pasta and yoghurt
- (3) Chips and pasta
- (4) Chips and yoghurt
- 30. The food web below is made up of organisms that live in a forest.



Which change would most likely occur if all the producers in this ecosystem were removed?

- (1) The mice would become the new producers.
- (2) All the animals would either die or move away.
- (3) The number of mice would increase.
- (4) All the animal populations would increase.

**31.** Our body need food to function normally. We need carbohydrates which are broken down into sugars and provide a ready source of energy. We use this energy to work, run and play. Proteins in our food are used to make us grow and to replace old and damaged tissues (groups of cells) in our bodies. The following pie graph shows the percentage of each nutrient which is required by the average adult.



Select the answer which DOES NOT apply to the pie graph given above.

An adult should consume (eat and drink) .....

- (1) twice the percentage of proteins as compared to fats.
- (2) half of the percentage of proteins as compared to fats.
- (3) three times the percentage of carbohydrates as compared to fats.
- (4) three times the percentage of proteins as compared to water.
- **32.** What information is given by following figure?



- (1) The figure gives information that how the animals live together in a same environment.
- (2) The figure gives information that they all are terrestrial animals.
- (3) The figure gives the information that all living things are ultimately converted into non-living things.
- (4) The figure gives the information that how the living organisms are dependent on one another for their food.
- **33.** Mira's uncle fall ill and she went to see him. There she came to know that he is suffering from a heart disease. Mira concluded that her uncle might be taking diet rich in
  - (1) carbohydrates (2) proteins (3) fats (4) vitamins
- **34.** What is a decomposer?
  - (1) A living thing that breaks down dead organisms
  - (2) A living thing that makes its own food
  - (3) An animal that eats live plants
  - (4) An animal that hunts other animals





(4) Scurvy

(1) Dehydration (2) Marasmus (3) Kwashiorkor **SECTION-D : MATHEMATICS** 

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

36. The pictograph shows the number of new chairs in five classes.

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(4) 6A and 6E

- 37. The students of class 4 are celebrating chirstmas in their school today. Four students were asked to get juice. Marie got 1300 ml of grape juice, Sally got 2580 ml of orange juice, Mickey got 1450 ml of apple juice and Vicky got 620 ml of mango juice. How many litres of juice did they bring ?
  - (1) 5.95  $\ell$  (2) 5.9  $\ell$
  - (3) 5  $\ell$  (4) 5.85  $\ell$
- 38. The values of the following expressions except one are equal. Which one is different ?
  - (1)  $(8 + 8 8) \div 8$
  - $(2) \ 8 + (8 \div 8) 8$
  - $(3) \ 8 \div (8 + 8 8)$
  - $(4) \ 8 (8 \ \div \ 8) + \ 8$
- **39.** The graph below represents the number of English textbooks each costing Rs.80, sold by a shopkeeper during a week. See the graph and answer the question below :



(4) 8.95 quintals

How much more money did the shopkeeper earn on Saturday than Friday ?

 (1) Rs. 800
 (2) Rs.7500

 (3) Rs. 400
 (4) None

**40.** The point of concurrence of the medians of a triangle is called \_\_\_\_\_

- (1) centroid(2) centre(3) orthocentre(4) mid point
- 41. 795000 grams equal how many quintals?
  - (1) 750 quintals (2) 800 quintals
  - (3) 7.95 quintals

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42. The incomplete bar graph shows the number of cookies sold by Raghu in 5 days.

450 400 350 300 300 200 150 100 Fri Thu Wed Sat Sun The total number of cookies sold was 2000. How many cookies were sold on Sunday? (1)750(2) 850 (3) 800 (4) 950 43. Which of following statement is true ? (1) Every square is a rectangle (2) Every rectangle is a square (3) Every parallelogram is a rectangle (4) Every parallelogram is a rhombus 44. From each of the two given numbers, half the smaller number is subtracted. Of the resulting numbers the larger one is three times the smaller. What is the ratio of the larger to smaller numbers ? (1) 2 : 1(2) 1 : 2(3) 3 : 1(4) 1 : 345. Greatest integer between -10 & -15 is ? (1) - 10(2) - 11(3) - 15(4) - 14**46**. A satellite orbits Earth every 7200 seconds. How many times does the satellite orbit Earth in 1 day ? (1) 120(2) 12(3) 3600(4) 2A car is moving at an average speed of  $3\frac{1}{9}$  km/h. How much distance will it cover in  $5\frac{1}{7}$  hours ? 47. (1) 15 km (2) 14 km (3) 13 km (4) 16 km **48**. In the given pictograph, which mode carries the maximum number of students ?

Bus	****
Car	****
Cycle	****
On foot	***

(1) Bus	(2) Car	(3) Cycle	(4) On foot

- **49.**  $\frac{-3}{5} = \frac{1}{-15}$
- (1) 9
   (2) -9
   (3) 0
   (4) 1

   50. In Roman numeral system, the symbol 'XCV' represents the number \_\_\_\_\_.
   (1) 85
   (2) 95
   (3) 105
   (4) 500

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- 51. What is value of  $\frac{1}{1 + \frac{1}{1 + \frac{1}{2}}}$ (1)  $\frac{3}{5}$  (2)  $\frac{5}{3}$  (3)  $\frac{8}{5}$  (4)  $\frac{5}{8}$ 52. If 2459 × 1108 = 2724572 then value of 24.59 × 0.1108 is (1) 272.4572 (2) 2724.572
  - (3) 0.2724572 (4) 2.724572
- **53.** There are 1000 children who were asked about their hobbies. The children who told about their hobby, has been shown below. But some children didn't reply.



Which of the following is the correct pictorial representation for the children who did not reply ?

- $(1) \begin{array}{c} & (2) \\ & & (2) \\ & & (3) \\ & & (3) \\ & & (4)$
- 54.  $\frac{42.53 \times 1.001 \times 10.51}{104.3 \times 519.32 \times 2.67}$  is same as

(1)	$\frac{4253 \times 1001 \times 1051}{1043 \times 51932 \times 267}$	(2)	$\frac{425.3 \times 100.1 \times 1051}{1043 \times 5193.2 \times 2.67}$
(3)	$\frac{4.253 \times 10.01 \times 105.1}{104.3 \times 5193.2 \times 2.67}$	(4)	$\frac{42.53 \times 10.01 \times 1.051}{1.043 \times 51932 \times 0.267}$

ALLEN'S Talent Encouragement Exam

**55.** Find the perimeter of figure ABCDE.

		A E	$\begin{array}{c} 0 \\ 4 \\ 4 \\ E \\ 3 \\ B \end{array}$	
	(1) 30	(2) 26	(3) 50	(4) 40
56.	The area of a rectangl	le is 80 sq. cm. the length	of the rectangle is 16	cm. then the breadth (in cm)
	(1) 5	(2) 10	(3) 15	(4) 20
57.	If all the factors of 72	29 are arranged in descen	ding order, then the thi	rd factor is
	(1) 243	(2) 81	(3) 27	(4) -27
58.	A box contains 5 strip in gms of medicine in	os having 12 capsules of 5 n 32 such boxes ?	500 gm medicine in ead	ch capsule. Find the total weight
	(1) 960000 gm	(2) 272000 gm	(3) 905600 gm	(4) 38400 gm
59.	$\frac{50 \times 14 + 1450}{5} = 2150$	) ÷ ?		
	(1) 50.5	(2) 5	(3) 50.05	(4) 45.9
60.	For how many integer their additive inverse	rs does the multiplicative is not same as the numbe	inverse of the number er ?	is same as the number itself but
	(1) 1	(2) 0	(3) 2	(4) can not be determined
		SECTION-E : M	ENTAL ABILIT	Y
This out o	section contains 20 M f which ONLY ONE	ultiple Choice Question is correct.	s. Each question has fo	our choices (1), (2), (3) and (4)
61.	In the following question	ion arrange the given wor	ds in the sequence in w	hich they occur in the dictionary
	and then choose the	correct sequence.		
	(a) Ingredient		(b) Involvement	
	(c) Independent		(d) Inmigration	
	(1) c, a, d, b		(2) a, d, c, d	
	(3) b, c, d, a		(4) d, b, a, c	
62.	Which letter will be th	ne mid way between the 14	4th letter from left end a	and 19th letter from the right end
	of the following alpha	abets?		
	ABCDEFGHIJ	K L M N O P Q R S T U	VWXYZ	
	(1) I		(2) K	
	(3) M		(4) G	

-

**63.** Mr. Om is going to watch a movie in the following picture path followed by him is given. From the options given below select the appropriate combination of direction so that Mr. Om reached the theater easily.

		Mr. Om		Movie Theater
	(1) ESENEES		(2) SENESEE	
	(3) ESENESE		(4) NESESE	
64.	A person started walking	towards North. He wal	ked 10 m and then too	k a left turn and walked a distance
	of 15 m. Then he took a now?	right turn and walked	a distance of 10 m ag	gain, Which direction is he facing
	(1) South		(2) West	
	(3) East		(4) North	
65.	In a certain code language	"RHYTHM" is coded a	s MHTYHR. How wou	ıld "ECASTASY" will be coded?
	(1) SACEYSAT		(2) CESAATYS	
	(3) YSATASEC		(4) YSATSACE	
66.	A watch shows 4 : 15. point?	If the minute hand po	ints West, then in wl	hich direction will the hour hand
	(1) North-West		(2) South	
	(3) South-East		(4) East	
67.	If the first and second le letters, the fifth and the the left ?	tters in the word "HIS" sixth letters and so on,	TORICAL" were inter which of the followin	changed, also the third and fourth ag would be the eighth letter from
	(1) A	(2) I	(3) C	(4) T
68.	If 'MEAT' is written as	'TEAM', then 'BALE'	is written as	
	(1) ELAB		(2) EABL	
	(3) EBLA		(4) EALB	
Dire	ctions (Q. No 69 & 70):-	Read the following inf	ormation carefully and	answer the questions that follow.
(i)	Six flats on a floor in tw	wo rows facing North	and South are allotted	d to P, Q, R, S, T and U.
(ii)	Q gets a North facing f	lat and is not next to a	S.	
(iii)	S and U get diagonally	opposite flats.		

(iv) R next to U, gets a South facing flat and T gets a North facing flat.

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69.	Whose flat is between Q and S?											
	(1) T	(2) U	(3) R	(4) P								
70.	The flats of which of t	he other pair than SU, i	s diagonally opposite to	each other?								
	(1) PT	(2) QP	(3) QR	(4) TS								
71.	Find the missing number	ers in the following serie	s :									
	12, 15, 18, 21, ?											
	(1) 24	(2) 23	(3) 22	(4) 25								
72.	Find the missing number	ers in the following serie	s :									
	5, 5, 10, 30, 120, 600,	?										
	(1) 3600	(2) 3000	(3) 4200	(4) 4800								
73.	Find the missing term	?										
	672, 336, 344, 172, 18	30, ?, 98										
	(1) 188	(2) 100	(3) 90	(4) 120								

74. Select the correct figure which correctly depicts the relationship between the given words:Brinjal, Meat, Vegetables









75. Choose the correct mirror image.





- TALLENTEX B
- 76. Select the correct figure which correctly depicts the relationship between the given words:Singer, Writer, Actor





(2)

77. Select the correct water image:



78. Find the water image of the following figures.





79. Choose the correct mirror image from given alternatives :







80. Answer the following question according to the given table :

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Т	G	А	L	0	S	D	Н	J	N	F	С	R	U	Y	Ι	Ζ	E

"REGRET" is coded as 1318213181. How would "REJOICE" will be coded.

- (1) 131895171115
- (3) 149185151117

(2) 131895161218(4) 131811591512



#### SPACE FOR ROUGH WORK

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