Form No.



TALLENTEX (Pre) 2015 : (12, October 2014)



CLASS - 5th (V)

Duration: 2 Hrs. Maximun Marks: 320

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 risk

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 Form No. in the space provided on the top of this page.
- 3. 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 ball point pen.
- 4. Total Questions to be Attempted 80. Part-I: 20 Questions & Part-II: 60 Questions.
- 5. After breaking the Question Paper seal, check the following:
 - a. There are 16 pages in the booklet containing question no. 1 to 80 under 2 Parts i.e. Part-I & Part-II.
 - b. Part-I contains total 20 questions of IQ (Mental Ability).
 - c. Part-II contains total 60 questions under 4 sections which are Section (A): Physics, Section (B): Chemistry, Section(C): Biology & Section (D): Mathematics.
- 6. Marking Scheme:
 - a. If darkened bubble is RIGHT answer: 04 Marks.
 - b. If darkened bubble is WRONG answer: -01 Mark (Minus One Mark).
 - c. If no bubble is darkened in any question: No Mark.
- 7. Think wisely before darkening bubble as there is negative marking for wrong answer.
- 8. If you are found involved in cheating or disturbing others then your ORS will be cancelled.
- 9. Do not put any stain on ORS and hand it over back properly to the invigilator.
- 10. You can take along the question paper after the test is over.

A Specially Designed initiative at National Level to Encourage Young Talent

by





PART-I

IQ (MENTAL ABILITY)

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

1.	Find the wrong term in following series.						
	4, 8, 13, 16, 20, 24						
	(1) 8	(2) 13	(3) 16	(4) 20			
2.	. What direction will you face if you start facing west and make $\frac{1}{4}$ of a revolution clockwist						
	(1) South	(2) North	(3) West	(4) East			
3.	If the first and last i.e.	abet are paired, the second and					
	25th, the third and the	e 24th and so on are p	paired which of the follow	wing would be such a pair?			
	(1) EW	(2) BY	(3) FV	(4) BW			
4.	How many 3 digit nur	mbers can be formed	using digits 4, 5, 6 only	once			
	(1) 5	(2) 6	(3) 3	(4) 4			
5.	In the following quest	f words that show the sar	me relationship as given in the				
	above pair						
	Summer : Raining						
	(1) Monday : Sunday	,	(2) Summer: Winter				
	(3) December: Januar	ry	(4) Licence: Driving				
6.	Letters of the word give	Letters of the word given below have been jumbled up. You are required to construct the word. Each					
	letter has been numbered. Choose the option which gives the correct order of the letters as indicated						
	by the numbers to form the word.						
		T	R I F U				
		1	2 3 4 5				
	(1) 3, 1, 2, 4, 5	(2) 4, 2,5, 3, 1	(3) 4, 3, 2, 1, 5	(4) 5, 3, 2, 1, 4			
7. How many triangles are there in the following figure ?							
	(1) 6	(2) 10	(3) 11	(4) 12			
8.	In the following questi	on, four words are give	en. Which of them will o	come at the third position if all			
	of them are arranged alphabetically as in a dictionary ?						
	(1) Heaven	(2) Hillock	(3) Hawker	(4) Hilt			
9.	If in a certain languag	e KINDLE is coded a	s ELDNIK, how is EXO	TIC coded in that code?			
	(1) CXOTIE	(2) COXITE	(3) CITOXE	(4) EOXITC			



- 10. A plane flying in North-West direction turns clockwise by an angle of 45°. In which direction is it flying now?
 - (1) North
- (2) South
- (3) West
- (4) South-west
- 11. X is brother of Y. B is brother of A. A is mother of X. What is B of Y?
 - (1) Aunt
- (2) Niece
- (3) Nephew
- (4) Uncle
- **12.** Find the missing character from amongst the given alternatives.



- (1) 37
- (2) 38
- (3) 39
- (4) 42

Direction: (Q.13 & Q.14): P, Q, R, S, T, U, V and W are sitting round the circle and facing the centre P is second to the right of T who is the neighbour of R and V.

S is not the neighbour of U.

V is the neighbour of U.

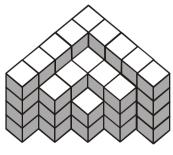
Q is not between S and W. W is between Q and S.

- **13.** What is the position of S?
 - (1) Between U and V

- (2) Second to the right of P
- (3) To the immediate right of P
- (4) Data inadequate
- 14. Which two of the following are not immediate neighbours?
 - (1) R and V
- (2) U and V
- (3) R and P
- (4) Q and W
- Find the value of + + + If = 175 and \div = 5**15.**
 - (1) 7

- (2) 14
- (3) 35
- (4) 49

How many unit cubes are there in the figure ? **16.**



- (1) 52
- (2) 53
- (3) 54
- (4) 56

17. What should come next?

























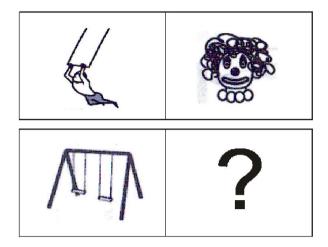


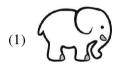






18. Which figure completes the second pair in the same way as the first pair.



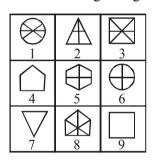








19. Group the following figures into three classes regarding common properties amongst them.



(1) 4, 7, 9; 2, 5, 8; 1, 3, 6

(2) 4, 7, 9; 2, 5, 6; 1, 3, 8

(3) 1, 2, 3; 4, 5, 6; 7, 8, 9

(4) 1, 2, 3; 4, 7, 9; 5, 6, 8

20. In the following question, from amongst the figures marked (1), (2), (3) and (4), select the one which satisfies the same condition of placement of the dot as in the given figure (X)













PART-II

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.

21. In which of the following figures only pushing force is applied?









- 22. Work is always done when
 - (1) an object moves.

- (2) a force moves an object.
- (3) a force is exerted on an object.
- (4) an object has mass.
- 23. An axe is an example of which type of simple machine?
 - (1) Screw

(2) Inclined plane

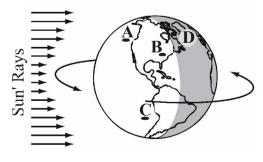
(3) Wedge

- (4) Lever
- **24.** A standard bottle opener is an example of which type of lever?
 - (1) Lever of the first order

(2) Lever of the second order

(3) Lever of the third order

- (4) Lever of the fourth order
- 25. In the diagram below, which of these locations would enter the night-time side of Earth next?



(1) A

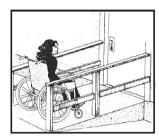
(2) B

(3) C

(4) D



- **26.** The Great Red Spot is a planetary feature that has been observed for hundreds of years. On which planet is the Great Red Spot?
 - (1) Venus
- (2) Mars
- (3) Neptune
- (4) Jupiter
- 27. The illustration below shows a student approaching the door to a building.



Which two simple machines are being used to enable the student to reach the door?

(1) Inclined plane and pulley

(2) Lever and wheel-and-axle

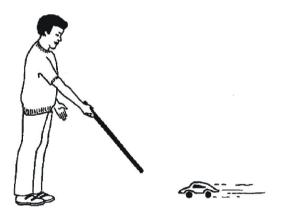
(3) Pulley and lever

- (4) Wheel-and-axle and inclined plane
- **28.** Which among the following is the unit of force?
 - (1) Newton

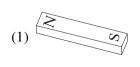
(2) Dyne

(3) $kg \frac{m}{s^2}$

- (4) All are units of force
- 29. The picture shows Raj pulling the car made of iron with a wand.



Which of these is probably inside the wand?



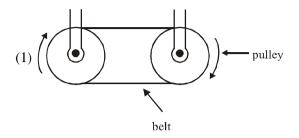


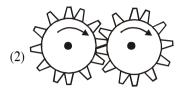


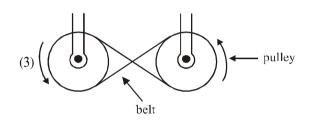


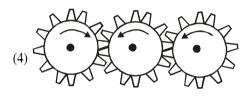


30. Alisha wants to build a machine for her technology class. To think of ideas, she drew four sketches of moving parts for her machine. Which design will work?









- **31.** All stars appear to move from
 - (1) East to West

(2) West to East

(3) North to South

- (4) South to North
- 32. Which among the following planets has no rings around it?
 - (1) Jupiter

(2) Saturn

(3) Uranus

(4) Mars

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.

- 33. Substance from which metal is economically extracted is known as
 - (1) Mineral
- (2) Ore
- (3) Flux
- (4) Slag

- **34.** Soil can be conserved by
 - (1) Afforestation

(2) Terrace farming

(3) Bunds

- (4) All the above
- 35. The origin point of an earthquake is called the
 - (1) Epicentre

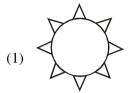
(2) Crater

(3) Focus

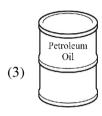
- (4) None of these
- **36.** What is the full form of 'NGO'?
 - (1) Non-Government Organisation.
- (2) National Government Organisation
- (3) National Growth Organisation
- (4) New Great Organisation



37. Nonrenewable resources are natural resources that cannot be replaced quickly by nature when they get used up. According to this definition, which of these is a nonrenewable resource?

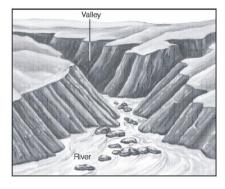








- **38.** Diamond is formed at.....
 - (1) high temperature and high pressure
- (2) high temperature and low pressure
- (3) low temperature and high pressure
- (4) low temperature and low pressure
- 39. The diagram below shows the effect of a river on an area over many years.



Which process caused the valley to form?

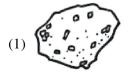
(1) condensation

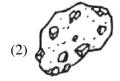
(2) deposition

(3) erosion

(4) evaporation

40. The size of crystals in igneous rock can be determined by how fast the magma cools and solidifies. The faster the magma cools, the smaller the crystals. Which sample of granite is formed from magma that is cooled and solidified at the slowest rate?



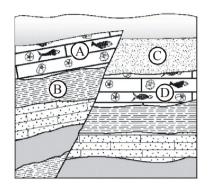








41. The layers of this area do not line up. Which of the following could have caused this?



- (1) Weathering
- (2) Earthquakes
- (3) Erosion
- (4) Volcanoes

- **42.** Carbon dioxide is produced during:
 - (1) Photosynthesis and inspiration
 - (3) Burning and respiration
 - Vermi Composting involves the addition of
 - (1) Red-worm

43.

(3) Pesticides

(4) Respiration and photosynthesis

(2) Transpiration and combustion

- (2) Chemicals
- (4) Wastes of plants only

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.

- 44. The main sources of vitamins and minerals are
 - (1) Pulses, meat and egg

- (2) Oil, butter and ghee
- (3) Fruits and green vegetables
- (4) Potato, maize, wheat and rice
- **45.** Respiratory pigment found in insects is
 - (1) Haemocyanin

(2) Haemoglobin

(3) Both 1 and 2

- (4) Lymph
- 46. A person is suffering from Anaemia, the food recommended for recovery of this disorder are
 - (1) Iodised salt & sea food

(2) Sea food and milk

(3) Butter, fish & meat

- (4) Apple & Spinach
- 47. Which of the following disease is non communicable?
 - (i) Cholera

(ii) Typhoid

- (iii) Diabetes
- (2) (iii) only
- (iv) Chicken pox(3) (i) & (ii) only
- (4) All of these
- **48.** According to the feeding habits of sparrows i.e. crushing of seeds, their beaks have been specialised as being
 - (1) Broad and notched

(1) (i), (ii) and (iii)

(2) Short & strong

(3) Sharp and hooked

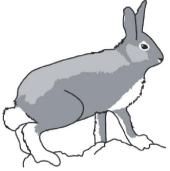
(4) None of these

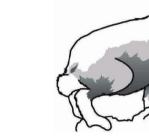


- 49. Pernicious anaemia, failure of erythrocytes to mature, is mainly due to deficiency of
 - (1) Vitamin K
- (2) Thiamine
- (3) Vitamin C
- (4) Cyanocobalamin

- **50.** Which of these best defines communicable diseases?
 - (1) They can be cured.

- (2) They are caused by bacteria.
- (3) They are spread to others.
- (4) They can spread only in winter.
- **51.** The pictures below show the change in the fur of an arctic hare from summer to winter.





Fur in summer

Fur in winter

Which of the following statements best describes how this change helps arctic hares?

- (1) It lowers their body temperature.
- (2) It protects their eyes from sunlight.
- (3) It helps them to move on slippery ice.
- (4) It makes them less visible to predators.

52. John has diabetes.

Which of the following should he be careful about eating or drinking?

- (1) Beef
- (2) Eggs
- (3) Milk
- (4) Fruit juice
- 53. A polar bear is almost completely covered with white fur. The few parts without fur include the foot pads on its large, clawed paws. The foot pads are black and covered with many small bumps. The bumps help the polar bear to
 - (1) Conserve body heat

- (2) Swim quickly in cold water
- (3) Walk on ice without slipping
- (4) Blend in with its surroundings
- 54. Observe the mouthpart of the insect in the illustration below and determine how it would feed?



(1) Cut plant tissues

(2) Siphon nectar

(3) Sponge up food

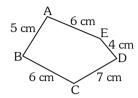
- (4) Pierce skin and suck liquids
- 55. For immediate energy production in cells one should take
 - (1) Glucose
- (2) Proteins
- (3) Vitamin C
- (4) Minerals



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.

56. Find the perimeter of the following figure.



- (1) 23 cm
- (2) 25 cm
- (3) 28 cm
- (4) None of these
- 57. Which figure can be made using 3 matchsticks (without breaking the sticks)?
 - (1) Square
- (2) Rectangle
- (3) Triangle
- (4) Circle
- **58.** Which figure represents greater fraction by shaded part ?





- (1) (i)
- (2) (ii)
- (3) both are equal
- (4) None of these
- **59.** Which point is interior to the angle in the following figure?



(1) P

(2) Q

(3) R

(4) Both P & Q

60. A pipe leaks 3.5 gallons of water each hour.

Which table represents the total amount of water leaked at the end of each hour?

Wasted (gallons) 1 3.5		Time(Hours)	Water
1 3.5			Wasted
			(gallons)
2 3.5		1	3.5
(1) $\stackrel{\mathcal{L}}{=}$ 3.3	11	2	3.5
(1) 3 3.5	1)	3	3.5
4 3.5		4	3.5
5 3.5		5	3.5

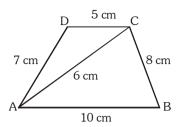
	Time(Hours)	Water
		Wasted
		(gallons)
	1	3.5
(2)	2	7
(2)	3	10.5
	4	14
	5	17.5

	Time(Hours)	Water
		Wasted
		(gallons)
	1	3.5
(2)	2	7
(3)	3	21
	4	84
	5	420

	Time(Hours)	Water Wasted (gallons) 3.5 12.25 42.88 150.06	
		Wasted	
(4)		(gallons)	
	1	3.5	
(4)	2	12.25	
(4)	3	42.88	
	4	Wasted (gallons) 3.5 12.25 42.88	
	5	525.22	



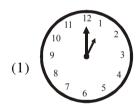
61. Find the perimeter of the following figure ABCD.

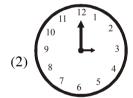


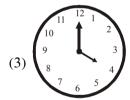
- (1) 30 cm
- (2) 36 cm
- (3) 42 cm
- (4) 24 cm
- 62. If two angles of a triangle are equal and third is unequal, then the triangle is
 - (1) Isosceles triangle
- (2) Equilateral triangle (3) Scalene triangle
- (4) None of these
- 63. Mrs. Joshi will put a fence around her rectangular garden.
 - The length of the garden is $9\frac{5}{6}$ yards.
 - The width of the garden is $5\frac{1}{4}$ yards.

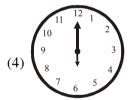
How many yards of fencing does Mrs. Joshi need?

- (1) $14\frac{6}{10}$
- (2) $29\frac{1}{12}$
- (3) $29\frac{1}{5}$
- (4) $30\frac{1}{6}$
- 64. In which clock is the angle between the hour hand and the minute hand less than 90°?







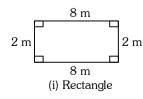


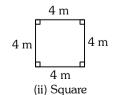
65. Solve

$$92\frac{7}{8} - 49.326 = ?$$

- (1) 40.152
- (2) 43.454
- (3) 43.549
- (4) 57.551

66. Which has greater area?





- (1) (i)
- (2) (ii)
- (3) Both are equal
- (4) None of these

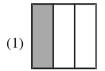


- 67. In a right angled triangle, one angle is 48°. Then find the remaining angle.
 - $(1) 45^{\circ}$

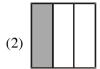
 $(2) 42^{\circ}$

 $(3) 90^{\circ}$

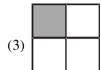
- (4) Can't be determined
- **68.** Which pair of figures has the same fractional area shaded gray?

















- 69. When an arm of an angle is extended then the measure of angle
 - (1) Doubles

(2) Triples

(3) Remains the same

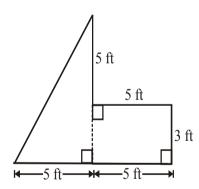
(4) None of these

70.
$$2 + \frac{9}{10} + \frac{9}{100} + \frac{9}{1000} + \frac{1}{1000} =$$

 $(1) \ 3$

(2) 2

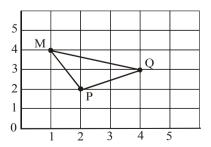
- (3) 2.999
- (4) 2.991
- 71. The diagram below shows the dimensions of the patio in Mr. Hampshire's backyard.



What is the area, in square feet, of the patio?

- (1) 20 square feet
- (2) 35 square feet
- (3) 40 square feet
- (4) 55 square feet

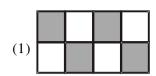
72. Which point is inside triangle MPQ?

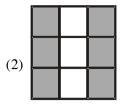


- (1)(2, 3)
- (2)(3, 2)
- (3)(3,4)
- (4) (4, 3)



73. Which of the following is a proper fraction?







(4) All of these

74. If $\angle ABC$ is a right angle, then $\angle DBE = ?$



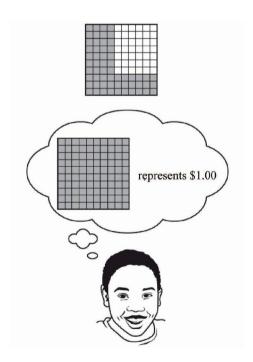
 $(1) 51^{\circ}$

(2) 52°

 $(3) 42^{\circ}$

 $(4) 55^{\circ}$

75. This grid is shaded gray to represent the cost of a muffin.



What is the cost of the muffin?

(1) \$0.43

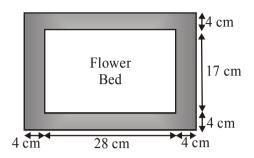
(2) \$0.46

(3) \$0.58

(4) \$0.78

CLASS-V / Paper Code - A

76. A rectangular flower bed measuring 28 cm by 17 cm has path 4 cm wide surrounding it. Find the area of the path

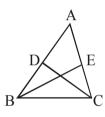


(1) 500 sq. cm

(2) 411 sq. cm

(3) 424 sq. cm

- (4) 619 sq. cm
- 77. How many possible triangles are there in the diagram given here?



(1) 6

(2) 7

(3) 8

- (4) 9
- **78.** Which is greater between 2 right angles and 180°?
 - (1) 2 Right angles
 - (2) 180°
 - (3) Both are equal
 - (4) Cannot be compared
- **79.** Saumya read one third of book on Monday, two fifth of the remaining book on Tuesday, and still 60 pages were left to read. Find the total number of pages she read on Monday and Tuesday.
 - (1) 90

(2) 50

(3) 40

- (4) 60
- 80. If $4256 \div 25 = 170.24$, then which of the following is correct?
 - (1) $4.256 \div 2.5 = 0.17024$

 $(2) \ 42.56 \div 25 = 17.024$

(3) 42.56 \div 2.5 =0.17024

 $(4) 42.56 \div 2.5 = 17.024$



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ANSWER KEY: CLASS - 5th (V)

(Held on: 12-10-2014)

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

