TALLENTEX 2027

Syllabus & Pattern

Class: 6

PHYSICS



- Our Amazing planet (5th)
- Energy—How Things Work (5th)
- Exploring Magnets (6th)
- Measurement of Length and Motion (6th)

CHEMISTRY



- Water—The Essence of Life(5th)
- Journey of a River(5th)
- Clothes—How Things are Made(5th)
- Materials Around Us(6th)
- Journey Through States of Water(6th)

BIOLOGY



- Animal and Plant Life
- Human Body and Health
- The Wonderful World of Science
- Diversity in the Living World
- Mindful Eating : A Path to a Healthy Body

MATHS



- Symmetry (5th)
- Multiplication and Division (5th)
- Pictorial Representation of Data (5th)
- Area and its Boundary (5th)
- Factors and Multiples (5th)
- Measurement (5th)
- Patterns in Mathematics (6th)
- Lines and Angles (6th)
- Number Play (6th)
- Data Handling and Presentation (6th)
- Prime Time (6th)

IQ



- Alphabet Test
- Coding-Decoding
- Mathematical Operations
- Direction Sense
- Embedded Figure
- Mirror Image
- Series (Verbal & Non-Verbal)
- Number, Ranking and Time Sequence Test
- Sitting Arrangement
- Venn Diagram
- Counting of Figures
- Inserting the Missing Character
- Blood Relation
- Water Image
- Counting of Figures

Offline & Online Exam Mode Pattern

Pattern of Questions

80 Objective Type Questions - Offline

100 Objective Type Questions - Online

MCQs of 4 choices (single correct answer)

Marking Scheme

+4 for correct answer

(No Negative Marking for wrong answer)

Question Distribution – Offline

Physics: 11, Chemistry: 11, Biology: 11, Maths: 25, IQ: 22

Question Distribution – Online

Physics: 14, Chemistry: 14, Biology: 15, Maths: 30, IQ: 27

Medium : English Only

Duration: 2 Hours.

Online: 2 Hours. It is Compulsory to be logged in to the portal at least 30 minutes before the test to avoid technical issue.

Offline: 2 Hours. It is Compulsory to take seat in exam hall at least 30 minutes before test to fill OMR.

Corporate Office : ALLEN Career Institute Pvt. Ltd. "SANKALP", CP-6, Indra Vihar, Kota (Rajasthan)-324005

Tel.: +91-8690660111, +91-8951395299 | **Mail:** info@allen.in | **Website:** www.allen.ac.in

Get Rank, Recognition, Cash Prize & Much More

#SuccesskaAssurance

TALLENTEX

ALLEN's Talent Encouragement Exam **2027**

SAMPLE TEST PAPER

FOR OFFLINE EXAM

CLASS VI

ALLEN

"TALLENTEX COORDINATION CELL"

ALLEN CAREER INSTITUTE PVT. LTD.

'Sankalp' CP-6, Indra Vihar, Kota (324005) RAJASTHAN

PHONE : +91-9606970199 (Offline), +91-9513736499 (Online)

E-MAIL : contact@tallentex.com | WEBSITE : allen.in/tallentex

A Specially Designed Initiative at National Level to Encourage Young Talent by

SECTION-A : PHYSICS

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

1. Which of the following has kinetic energy?

(1) A sleeping boy (2) A girl watching T.V.

(3) A moving car (4) A student sitting in class

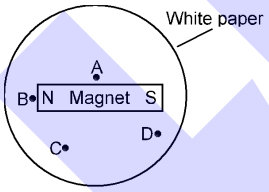
2. Match the entries of column-I with identical magnitudes in column-II

Column-I		**Column-II**	
(A)	5 cm test tube	(p)	500 cm rope
(B)	500 m distance	(q)	0.5 km long bridge
(C)	5 m ribbon	(r)	50 mm pin

(1) A-r, B-q, C-p (2) A-r, B-p, C-q (3) A-p, B-r, C-q (4) A-q, B-p, C-r

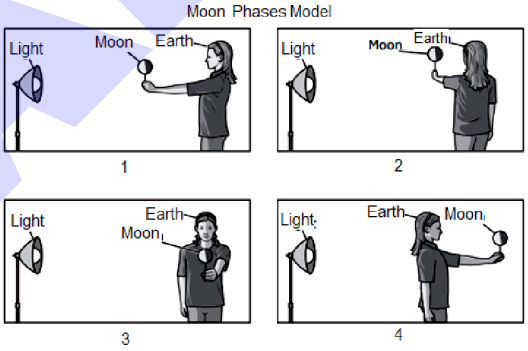
3. The diagram below shows a bar magnet resting on top of a piece of white paper. The north and south poles of the magnet are labeled N and S. Points A, B, C, and D represent four locations around the magnet.

If iron filings were sprinkled evenly across the entire paper circle, at which location would the greatest concentration of iron filings be found after 30 seconds?



(1) A (2) B (3) C (4) D

4. A student models moon phases. She holds a foam ball on a stick in front of her body and then stands in front of a light as shown. The student uses herself to represent Earth. She turns her body slowly to represent four different moon phases.



Which numbered diagram represents the student modeling a full moon?

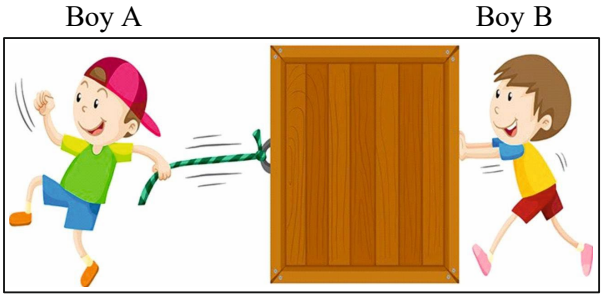
(1) Diagram 1 (2) Diagram 2 (3) Diagram 3 (4) Diagram 4

5. Earth appears to be the only planet that can support life as we know it. Which of the following gives Earth the conditions needed to support life?

(1) the shape of the orbit (2) the closeness of Mars

(3) the presence of a moon (4) the distance from the Sun

6. Forces exerted by boy A and boy B are the examples of (a) _____and (b) ____respectively.



(1) pull, pull
(2) push, push
(3) pull, push
(4) push, pull

7. When the Earth is directly between the Sun and the Moon, what type of eclipse occurs?

(1) Solar
(2) Lunar
(3) Transit
(4) Inferior conjunction

8. A needle shaped magnet is freely suspended just above a strong bar magnet. North pole of the needle shaped magnet

(1) will point in the direction of geographic north pole of the earth.
(2) will point in the direction of north pole of bar magnet.
(3) will point in the direction of south pole of bar magnet.
(4) will not point in any specific direction.

9. The distance between Bengaluru and Mysore is usually expressed in units of:

(1) Decametre
(2) Metre
(3) Centimetre
(4) Kilometre

10. **Statement I :** A galaxy is a system of millions of stars, together with gas and dust, held together by gravitational attraction.

Statement II : Andromeda is a type of galaxy.

(1) Statement I is true, Statement II is false.
(2) Statement I is false, Statement II is true.
(3) Both statements are true.
(4) Both statements are false.

11. Ravi wants to measure the circumference of his water bottle. Which of the following instruments can be used to determine the circumference?

(1) A 15 cm scale and a meter scale
(2) A meter scale
(3) Hand span and meter scale
(4) Thread and meter scale

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.

12. Nitesh scratched four different materials P, Q, R and S with a piece of glass. He observed that he could make a scratch only on two materials Q and S. What is the reason behind this observation?

(1) Because glass is a transparent material.

(2) Because glass is a softer material than Q and S.

(3) Because glass is a harder material than P and R.

(4) Because glass is a harder material than Q and S.

13. Which one of the following is insoluble in water ?

(1) Oxygen (2) Sugar

(3) Salt (4) Sawdust

14. Which of the following options is correct?

(1) Solids do not have a fixed shape.

(2) Chalk is not a matter.

(3) In gases, particles are closely packed.

(4) Liquids can take the shape of the container they are poured into.

15. In how many physical states does water mainly exist ?

(1) 2 (2) 3

(3) 4 (4) 5

16. Complete the correlation and select the correct option.

Coal : Fossil fuel :: Wind : ?

(1) Exhaustible resource

(2) Limited resource

(3) Non-Replenishable resource

(4) Renewable resource

17. The diagram below shows the effect of a river on an area over many years.



Which process caused valley to form?

(1) Condensation (2) Deposition

(3) Erosion (4) Evaporation

18. Nazia divided some substances into two groups as shown below.

Group 1	Group 2
Wool	Stone
Cotton	Plastic
Paper	Iron

How did Nazia group the substances ?

(1) Things that are soft and things that are hard.

(2) Things that are natural and things that are not.

(3) Things that absorb water and things that do not.

(4) Things that are opaque and things that are not opaque.

19. _____ is the fertile component in soil.

(1) Gravel (2) Humus

(3) Moisture (4) Air

20. Which of the following is a property of gas?

(1) Gases can be compressed easily.

(2) Particles of gases do not move.

(3) Gases fill up the entire space of a container.

(4) Both (1) and (3)

21. I am thick, black liquid. I am non-renewable resource. My products are used to produce heat, light, power and transportation fuels. Who am I?

(1) Kerosene

(2) Diesel

(3) Petroleum

(4) Bitumen

22. **Statement-I :** Some substances appear lustrous and some appear non-lustrous.

Statement-II : Wood appear lustrous.

(1) Both Statement-I & II are correct and statement-II is correct explanation of statement-I.

(2) Both Statement-I & II are correct and statement-II is not correct explanation of statement-I.

(3) Statement-I is correct and statement-II is incorrect.

(4) Statement-II is correct and statement-I is incorrect.

SECTION-C : BIOLOGY

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

23. Most producers obtain energy primarily from

(1) water

(2) sun

(3) nutrients in the soil

(4) decomposers

24. Select the incorrect statement from the following -

(1) Human body prepares vitamin D in the presence of sunlight.

(2) About 70% of human body weight is that of water.

(3) Vitamin D helps our body to use calcium for bones and teeth.

(4) Vitamins and minerals are required in large quantities while carbohydrates and proteins are required in small quantities.

25. Which of the following is not a part of circulatory system?

(1) Heart

(2) Blood

(3) Blood vessel

(4) Oesophagus

26. Read the given statements carefully and select the incorrect statement.

(1) Snake has two hollow teeth (fangs), through which poison enters the person's body, when it bites.

(2) Most of the birds have their eyes on either side of the head, to focus on two different things at a time.

(3) Life cycle of mosquito does not include larval stage.

(4) Tiger's whiskers are very sensitive to vibrations in air.

27. Rickets is the softening of bones in young children due to deficiency or inadequate metabolism of vitamin D.

This is what some students said about how the body gets the required amount of vitamin D.

Atul : Vitamin D in sunlight is absorbed by the body.

Salim : Vitamin D in food is absorbed by the digestive system.

Dennis : Vitamin D is synthesized by the skin when exposed to sunlight. Who is correct?

(1) Only Atul

(2) Only Atul and Salim

(3) Only Salim and Dennis

(4) All - Atul, Salim and Dennis

28. Complete the table by selecting correct option.

Vitamin	Function	Deficiency disease
A	Healthy skin and eyes	Night blindness
Vitamin D	Healthy bones	B
Vitamin K	C	Hemorrhage

(1) A-Vitamin-B, B- Scurvy, C-Growth of bones

(2) A-Vitamin-A, B- Beriberi, C-Keeps mouth and skin healthy

(3) A-Vitamin-C, B- Rickets, C-Increase the Immune system

(4) A-Vitamin-A, B- Rickets, C-Blood clotting process

29. I am the life line of a person's body. I am the king of circulatory system. I pump the blood throughout the body and if I stop working, the person will die. Who am I?

(1) Heart (2) Brain

(3) Kidney (4) Lungs

30. Following test is carried out to confirm……in food.

Drop iodine solution onto the food



(1) Glucose (2) Protein

(3) Fat (4) Starch

31. Which process describes the changes from a caterpillar to a butterfly?

(1) Germination (2) Metamorphosis

(3) Photosynthesis (4) Fertilization

32. Which one is the correct food chain?

(1) Eagle ⟶ Snake ⟶ Grasshopper ⟶ Grass ⟶ Frog

(2) Frog ⟶ Snake ⟶ Eagle ⟶ Grasshopper ⟶ Grass

(3) Grasshopper ⟶ Grass ⟶ Snake ⟶ Frog ⟶ Eagle

(4) Grass ⟶ Grasshopper ⟶ Frog ⟶ Snake ⟶ Eagle

33. Which of the following are good sources of roughage ?

(1) Milk, meat, soyabean, grains

(2) Egg, curd, pulses, fruit juice

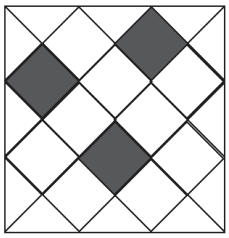
(3) Broccoli, fruits, carrot, spinach

(4) Onion, yoghurt, cheese, pulses

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.

34. The fraction represented by the shaded region in the given figure is



(1) $\frac{1}{6}$ (2) $\frac{1}{4}$ (3) $\frac{3}{12}$ (4) $\frac{3}{14}$

35. In the following pictograph, number of video games sold in week has been shown. (Scale  = 7 video games)

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

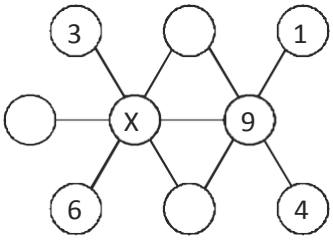
How many video games were sold during first four days of the week?

(1) 120 (2) 140 (3) 160 (4) 180

36. A plastic pipe 50 metres long weighs 4 kilograms. What is the weight of a similar pipe that is 20 metres long?

(1) 1.5 kg (2) 1.6 kg (3) 1.8 kg (4) 2.2 kg

37. In the diagram, each of the integer 1 to 9 is to be placed in one circle so that the integers in every straight row of three joined circles add to 18. Find the value of the number represented by X.



(1) 4 (2) 5 (3) 7 (4) 8

38. If  represents 60 men, then how many men does  represent?

(1) 40 (2) 50 (3) 12 (4) 70

39. Saurabh has organised his birthday party and invited his friends. If he is planning to give 150 gm of cake and 350 ml of cold-drink to each guest. How much quantity of cake and cold-drink he need for 50 guest?

(1) 7.5 kg cake and 17.5 litres cold-drink

(2) 5 kg cake and 22.5 litres cold-drink

(3) 8 kg cake and 12.5 litres cold-drink

(4) 12 kg cake and 17.5 litres cold-drink

40. If  +  = 15 and  > 7 but  < 9, then find the value of  if both symbols stand for whole numbers.

(1) 9 (2) 7 (3) 11 (4) 16

41. An auditorium had 240 rows of chairs. If there are 170 chairs in each row, how many persons can be seated in the auditorium?

(1) 40800 (2) 408 (3) 41000 (4) 410

42. Ram mixed 3.6 kg of hazelnuts with 0.75 kg of cashews. He packed the mixture equally into 5 boxes. What is the mass of each box ?

(1) 14.25 kg (2) 4.35 kg (3) 0.87 kg (4) 0.72 kg

43. The following pictograph shows the number of Maruti Vans manufactured during a week. Read the table and answer the question given below :

Days	Number of Maruti Vans manufactured  = 200 Maruti Vans
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

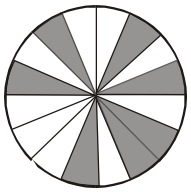
Find the total number of maruti vans manufactured in a week.

(1) 2300 (2) 4600 (3) 23 (4) 46

44. The length of a rectangle is $\frac{7}{5}$ of its breadth. If its perimeter is 144 m, what is its area?

(1) 1260 m^2 (2) 1620 m^2 (3) 1800 m^2 (4) 2340 m^2

45. What part of total area is shaded.



(1) $\frac{4}{15}$ (2) $\frac{8}{32}$ (3) $\frac{7}{16}$ (4) $\frac{10}{32}$

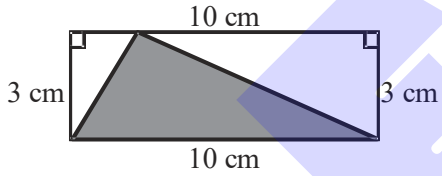
46. $12+\frac{2}{10}+\frac{4}{1000}=$

(1) 12.204 (2) 12.240 (3) 12.402 (4) 12.240

47. $3 \times (3 + 3) \div 3$ equals

(1) 6 (2) 3 (3) 2 (4) 12

48. In the diagram, what is the area of the shaded triangle?



(1) 6.5 cm^2 (2) 7.5 cm^2 (3) 15 cm^2 (4) 13 cm^2

49. Simplify : $3\frac{1}{2}+\frac{15}{4}-\overline{2\frac{3}{4}-1\frac{5}{8}}$

(1) $8\frac{1}{6}$ (2) $6\frac{1}{8}$ (3) $\frac{50}{8}$ (4) $\frac{31}{6}$

50. The following pictograph shows the number of autos manufactured during a week. Read the table and answer the question given below :

Days	Number of Autos manufactured	= 300 Autos
Monday	7	
Tuesday	9	
Wednesday	5	
Thursday	6	
Friday	5	
Saturday	8	

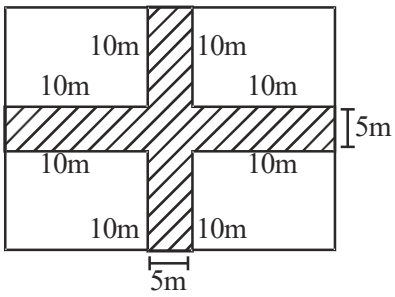
On which day were the maximum number of autos manufactured ?

(1) Monday (2) Tuesday (3) Thursday (4) Friday

51. Simplify : $\left[4.6-\left\{3.2-\left(1.8-\overline{2.2-1.8}\right)\right\}\right]$

(1) 1.8 (2) 2.8 (3) 3.8 (4) 4.8

52. Find the area of shaded region in given figure.



(1) 225 m^2 (2) 150 m^2

(3) 180 m^2 (4) 200 m^2

53. 0.35 equals

(1) $\frac{700}{20}$ (2) $\frac{7}{20}$

(3) $\frac{70}{20}$ (4) $\frac{7}{200}$

54. 1004×1390 equals

(1) 13,95,460 (2) 13,95,560

(3) 12,95,560 (4) 11,56,500

55. The product divided by the multiplicand equals the

(1) Multiplier (2) Smaller number

(3) Larger number (4) None of these

56. Amos is reading a 400 page book. On Monday, he reads 40 pages. On each day after the first, the number of pages that he reads is 20 more than on the previous day. Amos finishes the book on

(1) Friday (2) Saturday

(3) Sunday (4) Tuesday

57. The angle between two parallel line is

(1) 0° (2) 60°

(3) 90° (4) 30°

58. Subtract 9 km 75 m from 16 km 20 m.

(1) 6 km (2) 6.945 km

(3) 5.965 km (4) 6.941 km

SECTION-E : MENTAL ABILITY

This section contains **22 Multiple Choice Questions.** Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

59. Which of the following words will come at second position if all the words are arranged alphabetically?

(1) Boast (2) Broad (3) Board (4) Bull

60. Two men and two women are playing cards and are seated North, East, South and West of a table. No women is facing East. Persons sitting opposite to each other are not of the same sex. One man is facing south, which direction ladies are facing ?

(1) North and East (2) East and West

(3) South and East (4) North and West

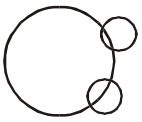
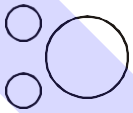
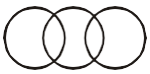
61. Following question are based on the following letters of English alphabet. Study the pattern and then answer these questions.

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

If second half of the above alphabets is written in reverse order, which letter would be 5th from right of 9th letter from left?

(1) Z (2) M (3) N (4) P

62. Below you are served with four different type of Venn diagrams that indicate a definite relationship between Tennis, Rugby and Soccer. You need to find out the diagram which is the most relevant

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

63. In a certain code, "APPROVAL" is writen as "LAVORPPA". How would "ROUTINE" be written in that code?

(1) ENITUOR (2) ROUENIT (3) UORENIT (4) ENITOUR

64. Sara is facing towards West and turns through 45° clockwise, again 180° clockwise. In which direction is she facing now?

(1) North-West (2) North-East

(3) South-East (4) South-West

65. If in the English alphabet, every alternate letter from B onwards is written in small letters while others are written in capitals, then how will the 3rd day from Tuesday will be coded?

(1) WeDNeSdAY (2) WEdnESdAY

(3) THURSdAY (4) frIdAY

66. If 'Mountain' is called 'Star', 'Star' is called 'Flower', 'Flower' is called 'Paper' and 'Paper' is called 'Pen', then on which Honey bee sits to prepare honey?

(1) Flowers (2) Star (3) Paper (4) Pen

67. Megha, Priya, Jayanti, Bhavya, Ritu, Teena and Garima are sitting around a circle facing centre and playing Antakshari. Bhavya is third to the left of Jayanti who is second to the left of Megha. Priya is third to the left of Bhavya and second to the right of Ritu. Teena is not an immediate neighbour of Megha. Who is between Bhavya and Megha?

(1) Ritu (2) Jayanti (3) Garima (4) Priya

68. Study the following information carefully to answer the below question

i. P, Q, R, S, T, U and V are sitting along a circle and facing at the centre.

ii. P is between T and S.

iii. U is between Q and V.

iv. Q is 2nd to the right of T. Where is V sitting ?

(1) 2nd to the left of P (2) 2nd to the left of Q

(3) Immediate left of U (4) None of these

69. In a certain code, RAIN is written as " * % + # ", INK is written as " # $ ". How is " R A N K " written in that code?

(1) * % + # (2) + # $* (3) # # ** (4) * % # $

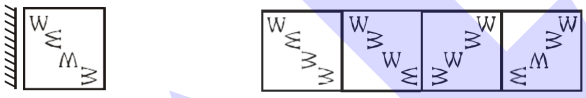
70. Find the missing number in the given series.

14	18	23	29	?

(1) 33 (2) 34 (3) 36 (4) 37

71. Which answer figure will be the correct mirror image the question figure

Question figure **Answer figure**



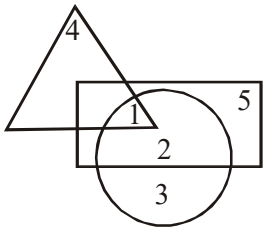
(1) (2) (3) (4)

72. In Alpha-numeric series, letters, and numbers (or digits) together are placed in a specific pattern. Find the correct alternative from the given options.

20AB	40CD	60EF	80GH	?

(1) 100IJ (2) 100JI (3) 120IJ (4) 120JI

73. In the given figure the circle represents children who like Burger, the triangle represents children who like Pizza, reactangle represents children who like Sandwich



Which region represents children who like burger and sandwich both but not pizza ?

(1) 1 (2) 2 (3) 3 (4) 6

74. In the following question, choose the correct water–image of the given word from amongst the four alternative (1), (2), (3) and (4) given along with it.

DISC

(1) CSID (2) ↄSIᗡ (3) DIꙅↃ (4) DISC

75. Riya walks 2 km towards East and then she turns to South and walks 4 km. Again she turns to East and walks 3 km after this she turns to north and walks 4 km. Now, how far is she from starting point?

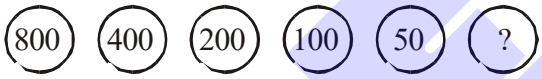
(1) 5 km (2) 7 km (3) 6 km (4) 4 km

76. Find the water image of following figure.



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

77. Which one comes next?



(1) 15 (2) 20 (3) 25 (4) 30

78. Select the correct mirror image of figure (X).



(X)

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

79. If in a certain code TRACTOR is coded as ARTCROT. How is SCOOTER written in that code?

(1) RTEAOTO (2) CSOOETR (3) OCSTORE (4) OCSORET

80. Find the missing term : 2, 5, 11, 23, 47, ?

(1) 53 (2) 95 (3) 84 (4) 66

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	1	2	4	4	3	2	3	4	3	4	4	4	4	2
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	4	3	3	2	4	3	3	2	4	4	3	3	4	1	4
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	2	4	3	1	2	2	3	3	1	2	1	3	2	1	3
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	4	1	3	2	2	1	1	2	2	1	1	1	2	1	4
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	1	2	1	3	4	3	3	1	4	3	4	1	2	3	1
Que.	76	77	78	79	80										
Ans.	1	3	3	4	2										