



**Vidyamandir Intellect National Incentive Test** 

For Students

Currently In Class 5th



**FOUNDATION** 





Head Office: Aggarwal Corporate Heights, 1st Floor, Netaji Subhash Place, Opp. Wazirpur Depot, Pitampura, Delhi.





## Sample Paper - 1 Year Program

## **Vidyamandir Intellect National Incentive Test**

Duration: 2.5 Hrs Maximum Marks: 350

#### **PAPER SCHEME:**

- The paper contains **60 Objective Type Questions** divided into three sections: **Section I, Section II and Section III.**
- Section I contains 10 Multiple Choice Questions (1-10) based on Mental Aptitude. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE CHOICE is correct.
- Section II contains 35 Multiple Choice Questions (11-45) based on Mathematics. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE CHOICE is correct.
- Section III contains 15 Multiple Choice Questions (46-60) based on Science. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE CHOICE is correct.

#### **MARKING SCHEME:**

- Section I : For each question, 5 marks will be awarded for correct answer and -1 negative marking for incorrect answer.
- Section II & III: For each question, 6 marks will be awarded for correct answer and -1 negative marking
  for incorrect answer.

#### **GENERAL INSTRUCTIONS:**

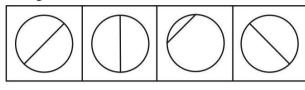
- For answering a question, an ANSWER SHEET (OMR SHEET) is provided separately. Please fill your Name,
   Roll Number, Seat ID, Date of Birth and the PAPER CODE properly in the space provided in the ANSWER
   SHEET. IT IS YOUR OWN RESPONSIBILITY TO FILL THE OMR SHEET CORRECTLY.
- Violating the examination room discipline will immediately lead to the cancellation of your paper and no excuses will be entertained.
- No one will be permitted to leave the examination hall before the end of the test.
- Please submit both the question paper and the answer sheet to the invigilator before leaving the examination hall.

**SUGGESTIONS:** Before starting the paper, spend 2-3 minutes to check whether all the pages are in order and report any issue to the invigilator immediately.

- Try to attempt the Sections in their respective order.
- Do not get stuck on a particular question for more than 3-4 minutes. Move on to a new question as there are 60 questions to solve.

#### **SECTION - I [MENTAL APTITUDE]**

1. Choose the figure which is different from the rest.



2

(1)

(2)**(B)** 

(3)

(4)

3

**(C)** 

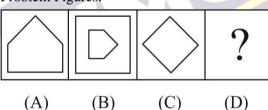
2. In this question consists of two sets of figures. Figures A, B, C and D constitute the Problem Set while figures 1, 2, 3, 4 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by selecting a suitable figure from the Answer Set that would replace the question mark (?) in fig (D).

Select a suitable figure from the Answer Figures that would replace the question mark (?).

**Problem Figures:** 

1

**(A)** 

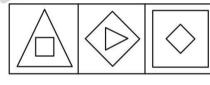


(A)

**(B)** 

(D)

**(C)** 



(1)

**Answer Figures:** 

(2)**(D)**  (4)

- **3.** A and B are brothers. C and D are sisters. A's son is D's brother. How is B related to C?
  - (A) Father
- **(B) Brother**

2

**(C)** Uncle

3

**(D)** Grandfather

4

(3)

- 4. Choose the alternative which is closely resembles the water-image of the given combination. monday
  - yadnom **(1)**
- monday **(2)**
- monpak **(3)**
- mon da y **(4)**

- 1 **(A)**
- **(B)** 2
- **(C)** 3
- **(D)** 4
- 5. If air is called green, green is called blue, blue is called sky, sky is called yellow, yellow is called water and water is called pink, then what is the color of clear sky?
  - (A) Blue
- **(B)** Sky
- **(C)** Yellow
- **(D)** Water

6. Choose a figure which would most closely resemble the unfolded form of Figure (Z).

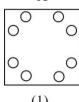


X

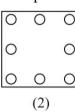




Z



(1)





(3)



(4)

- **(A)**
- **(B)** 2
- **(C)**
- 3

25

- **(D)**
- 7. Look at this series: 22, 21, 23, 22, 24, 23, ... What number should come next?

24

- **(A)** 22
- **(B)**
- **(C)**
- - 26 **(D)**

8. Identify the figure that completes the pattern.



(X)

**(A)** 



(1)



(2)

**(C)** 



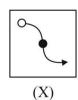


- (4)**(D)**
- 9. Arrange the words given below in a meaningful sequence.

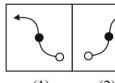
**(B)** 

- 1. **Protect**
- 2. Pressure
- **3.** Relief

- 4. Rain
- Flood
- 2, 4, 3, 1, 5 **(A)**
- **(B)** 2, 4, 5, 1, 3
- 2, 5, 4, 1, 3 **(C)**
- **(D)** 3, 2, 4, 5, 1
- **10.** Choose the correct mirror image of the given figure (X) from amongst the four alternatives.



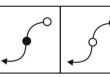
**(A)** 



**(B)** 

(2) (1)

2

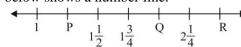


- (3) (4)
  - **(C)** 3
- **(D)**

## **SECTION - II [MATHEMATICS]**

- Vijay and Ajay are filling a fish tank with water. Vijay fills  $\frac{1}{5}$  of the tank. Then Ajay fills  $\frac{2}{5}$  of the tank. 11. How much of the tank have they filled in all?
  - **(A)**
- **(B)**
- **(C)**
- **(D)**

**12.** Figure below shows a number line.



The value of P+Q+R is:

- $5\frac{1}{4}$ **(A)**
- **(B)**
- (C)  $5\frac{3}{4}$

**13.** The number 2\*3\* has the same digit in the place of the asterisks and is divisible by 3. Which of the following digits should replace the asterisks?

- (A)
- **(B)**
- **(C)**
- **(D)**

14. Which multiplication is not correct?

 $\frac{1}{2} \times 4.12l = 2600 \text{m}l$ 

**(B)**  $\frac{2}{3} \times 2.19l = 1460 \text{m}l$ 

(C)  $\frac{3}{4} \times 3l = 2250 \text{m} l$ 

**(D)**  $\frac{4}{5} \times 2l = 1600 \text{ m}l$ 

There are 45 animals in a pet shop.  $\frac{2}{3}$  of them are puppies, 6 of them are parrots and the rest are kittens. **15.** 

How many kittens are in the pet shop?

- **(A)** 10
- **(B)**
- $(\mathbf{C})$

**16.** Sameer was told to multiply 126 by 32. Instead he multiplied 126 by 23. The difference in his answer, is:

- **(A)** 1134
- **(B)** 1143
- **(C)** 2898
- **(D)** 4032

A watermelon is 10 times as heavy as two apples of equal mass. If the mass of each apple is 214 g, find **17.** the mass of 3 such watermelons.

- 12840 g **(A)**
- **(B)** 6420 g
- **(D)** 4280 g

18. The adjoining figure is made up of 2 similar squares, A and B. Find the perimeter of the figure if the area of square A is 36 cm<sup>2</sup>

A	В
Area = $36 \text{ cm}^2$	

- (A) 24 cm
- 48 cm **(B)**
- **(C)** 30 cm
- **(D)** 36 cm

19. The charges for hiring a boat are shown below

 commendation and the commendation of the comme	
For the first hour	Rs. 15
For every additional hour or part there of	Rs. 10

Mr. Paul hired a boat from 9.00 a.m. to 2.30 p.m. How much did he pay?

- (A)
- **(B)** Rs. 45
- **(C)**
- **(D)** Rs. 70

The decimal representation of  $6+2\frac{21}{25}+\frac{9}{1000}$  is \_\_\_\_\_ 20.

> (A) 6.849

(A)

- **(B)** 8.0849
- **(C)**
- **(D)** 8.93

 $\underline{2012 + 2012 + 2012 + 2012 + 2012 + 2012 + 2012 + 2012}$ Find the value of the expression 21. 2012 + 2012 + 2012 + 2012

6036

- **(B)** 2012
- **(C)**
- **(D)**

22.	How	many numbers o	containin	g 8 in their te	ns place are	there between	300 and	400 ?			
	<b>(A)</b>	9	<b>(B)</b>	10	<b>(C)</b>	19	<b>(D)</b>	20			
23.	What	is the difference	e of the g	reatest 7 digit	number an	d the smallest 5	5 digit nu	mber?			
	<b>(A)</b>	9, 98, 099	<b>(B)</b>	99, 899	<b>(C)</b>	9, 98, 999	<b>(D)</b>	99, 89, 999			
24.	The d		-	-		-		the digit in the one's place. Igit in the ten's place is 2.			
	(A)	623	<b>(B)</b>	432	<b>(C)</b>	622	<b>(D)</b>	224			
25.		y is given to exp		as a product of 660 330 4	of prime nu			P, Q and $R$ respectively.			
	<b>(A)</b>	11, 55, 2	<b>(B)</b>	55, 11, 2	<b>(C)</b>	2, 55, 11	<b>(D)</b>	55, 2, 11			
26.	The p	ictograph shows	s the num	nber of eggs so	old by a trac	der in three day	rs.	1986			
		Monday				12					
		Tuesday			$\supset \bigcirc$		5				
		Wednesday			$\supset \subset$			110h			
26.		represe	ents 25 eg	ggs.		3	10	eggs he had at first			
	If the	trader still had	115 eggs	left after the t	three days, o	calculate the nu	ımber of	eggs he had at first.			
	<b>(A)</b>	185	<b>(B)</b>	300	(C)	215	<b>(D)</b>	415			
27.	What	is the missing s	ign in the	e box?	SICH						
	What is the missing sign in the box? $4\frac{1}{5} + 9\frac{1}{5} - 3\frac{1}{3} \boxed{6\frac{1}{4} - 8\frac{1}{4} + 5\frac{1}{4}}$ (A) < (B) = (C) > (D) Can't be determined										
	(A)	<	<b>(B)</b>	=	<b>(C)</b>	>	<b>(D)</b>	Can't be determined			
28.	Saura	bh can read 6 bo	ooks in a	day How ma	nv weeks w	vill he take to fi	nish 1440	) such books?			
20.	(A)	33	(B)	35	(C)	240	( <b>D</b> )	10			
20		is thinking of a	. ,		(0)	2.0	(2)				
<i>2)</i> .	•		•								
	•	The fourth digit is the greatest.  When the third digit is divided by the first digit, the quotient is 2.									
	•	The difference between the second and third digit is 1.									
	•	The first digi				511 13 1.					
	( <b>A</b> )	3768	( <b>B</b> )	4789	<b>(C)</b>	5698	<b>(D)</b>	1239			
30.	Inac	emi-final match	againet	Pakietan run	s scored by	M.S. Dhoni w	as divicil	ale by 11-7 and 2. If total			
JU.	In a semi-final match against Pakistan, runs scored by M.S. Dhoni was divisible by 11, 7 and 2. If total score of India is 302 runs, then find the runs scored by M.S. Dhoni is:										
	(A)	144	( <b>B</b> )	154	(C)	124	<b>(D)</b>	Data is not sufficient			
							-				

31. Which expression is true?

- $\frac{1}{5} > 0.2$
- $\frac{1}{4} < 0.25$ **(B)**
- (C)  $\frac{1}{4} > 0.5$
- $\frac{1}{4} > 0.2$ **(D)**

32. Which of the following numbers is divisible by 24?

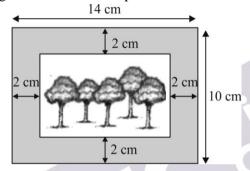
- (A) 88888
- **(B)** 76542
- **(C)** 301632
- **(D)** 30567

33. What is the missing number in the box?

$$3\frac{3}{4}$$
,  $3\frac{1}{2}$ ,  $\boxed{?}$ ,  $3$ ,  $2\frac{3}{4}$ 

- $3\frac{1}{4}$ **(B)**
- $3\frac{2}{5}$ **(C)**

34. The figure shows a framed picture.



Find the area of the picture in cm<sup>2</sup>.

- 96 (A)
- **(C)**
- 60

172 FOUNDATI **35.** Figure below shows an incomplete bill of the items bought by Mary. She paid the shopkeeper Rs. 50.

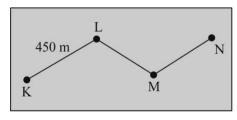
Quantity	Item	Price per kg	Price
1.5 kg	Biscuits	Rs. 9.00	
4 kg	Beans	Rs. 3.50	
1 kg	Cooking oil	Rs. 4.80	

What else can she buy with the balance of the money?

**(A)** 3 kg of biscuits **(B)** 5 kg of beans

**(C)** 4 kg of cooking oil **(D)** 1 kg of biscuit and 2 kg of cooking oil

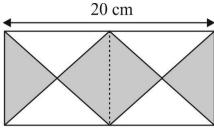
36. The figure shows the road map of four places, K, L, M and N. The distance from K to L is the same as the distance from L to M. The distance from M to N is  $\frac{1}{3}$  of the distance from K to M.



What is the distance in km, from *K* to *N*?

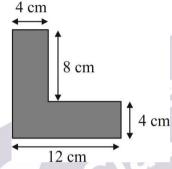
- **(A)** 1.20
- 1.05 **(B)**
- **(C)** 1.10
- **(D)** 0.30

**37.** The figure given below shows 8 identical triangles in 2 squares each of side 10 cm. Find the area of all the shaded triangles.

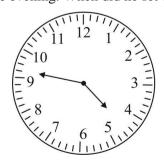


- (A)  $200 \text{ cm}^2$
- **(B)**
- $150 \, \mathrm{cm}^2$
- (C)  $125 \text{ cm}^2$
- **(D)**  $100 \text{ cm}^2$

- **38.** The value of  $15 \times (17+19) \div 4 35 \div 7$  is \_\_\_\_\_.
  - **(A)** 100
- **(B)** 120
- **(C)** 125
- **(D)** 130
- **39.** Find the area of the shaded part of the rectangular strip of papers.

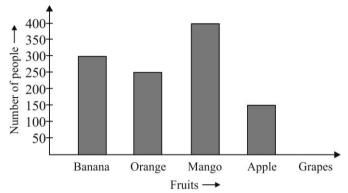


- $(\mathbf{A}) \qquad 8 \text{ cm}^2$
- **(B)**  $32 \text{ cm}^2$
- (C)  $72 \text{ cm}^2$
- **D**)  $80 \text{ cm}^2$
- **40.** Javed saved some notes which consist of Rs. 1, Rs. 10 and Rs. 20, notes. If his savings was Rs. 200, and he has 10 Re. 1 note and 3 Rs. 10 notes then how many Rs. 20 notes he had?
  - (A) 8
- **B**) 10
- **(C)** 12
- **(D)** 9
- 41. Anil transferred eggs from 24 paper trays into plastic trays. Each paper tray could hold 30 eggs while each plastic tray held 20 less. How many plastic trays did he use?
  - (**A**) 36
- **(B)** 7
- **C**) 8
- **(D)** 108
- 42. If  $\div$  = 84 and + + + + + + = 15, then what is the value of ?
  - $(\mathbf{A})$  = ?
    - **(B)** 249
- **(C)** 252
- **(D)** 255
- 43. Mr. Sharma drove from town P to town Q. He took 2 hours 15 minutes for the journey. The clock shows the time he arrived at town Q in the evening. When did he set off from town P?



- (A) 2:32 a.m.
- **(B)** 2:32 p.m.
- (C) 3:32 a.m.
- **(D)** 2:23 p.m.

44. The given bar graph shows the number of people like different types of fruits. Study the graph and answer the question that follows.



If number of people like grapes is double to the number of people like apple, then find the total number of people in the survey.

- **(A)** 1450
- **(B)** 1500
- **(C)** 1400
- **(D)** 1350

- **45.** Identify the number Z.
  - Add 156 to number Z, it will be 9800.
  - Subtract 156 from number Z, it will be 9488.
  - (A) 9544
- **(B)** 9644
- **(C)** 9744
- **(D)** 9844

### **SECTION - III [SCIENCE]**

**46.** The muscles found in front of your thighs are known as :

- (A) Iris
- (B) Cerebrum
- (C) Quadriceps
- (D) Melanin

**47.** Read the statements carefully and choose the correct option :

Statement A: There are 2 stomachs in the human body

Statement B: There are 2 lungs in the human body

(A) A is true

- **(B)** B is true
- (C) Both A and B are true
- **(D)** Both A and B are False

**48.** Match the following :

A	Lungs	1	Urinary system					
В	Kidneys	2	Nervous system					
С	Stomach	3	Respiratory system					
D	Brain	4	Digestive system					

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

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

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

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

**49.** What simple machine uses a slanted surface that connects a lower level to a higher level ?

- (A) Inclined Plane (B)
- B) Screw
- (C) Wedge
- (**D**) Lever

**50.** A dry comb after combing the hairs is brought near the tiny pieces of paper, what happens?

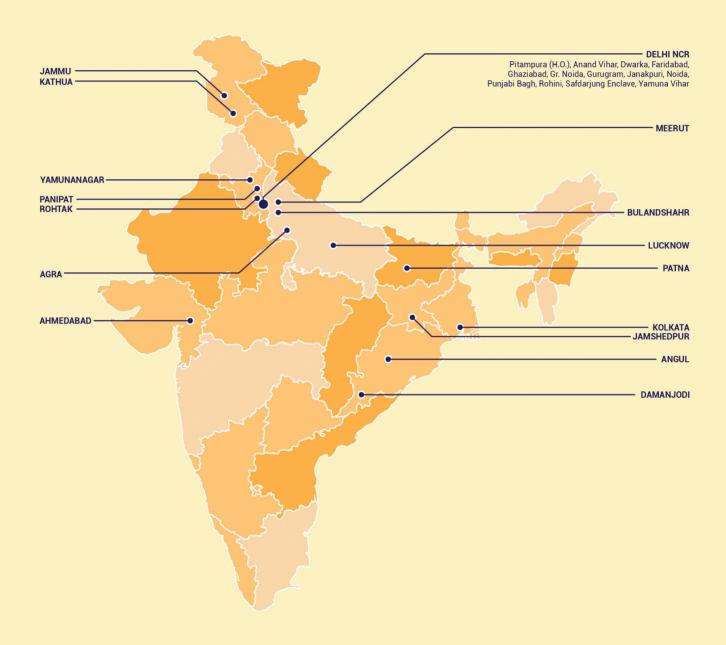
- (A) The paper pieces will get repelled due to magnetic force
  - (B) The paper pieces will get repelled due to electrostatic force
  - (C) The paper pieces will get attracted and stick with comb due to electrostatic force
  - (**D**) The paper pieces will get attracted to comb due to friction force

51.	(i) Sci ( <b>A</b> )	issors (ii) bottle o (i) and (iv)	pener (B)	iii) nail cutter, (iv (ii) and (iv)	(C)	os. Which of the (i), (ii) and (ii		ngs are example of levers? (i), (ii), (iii), (iv)	
52.	Which (A)	n of the following Condensation		place when water Vaporisation	vapour (C)	changes into ico		Evaporation	
53.	Which (A) (C)	n of the following Melting of ice Breaking of Gl		nysical change?	(B) (D)	Baking of Ca Both A and C			
54.	Which (A) (C)	A block of woo Balloon filled	od	e compressed easi	ly? (B) (D)	A Glass of m All of these	ilk		
55.	Which (A)	n Disease is cause Rickets	ed by V ( <b>B</b> )	itamin B1 deficie Beriberi	ency?	Pellagra	<b>(D)</b>	Gingivitis	
56.	Defici	iency of which el Iron	ement i	is caused by using Potassium	g purgat ( <b>C</b> )	ives on a regula Iodine	r basis?	Sodium	
57.	Select	the group of Dis	eases tl	hat spread by the	same m	eans or have the	e same ca	nuse:	
	<b>(A)</b>	Goitre, Anaem		•	<b>(B)</b>			ght Blindness	
<b>=</b> 0	(C)	Cholera, Typh		lergy	<b>(D)</b>	BeriBeri, Ma	laria, Pel	lagra	
58.	(A) (C)	Remove the we Beautify the fig.	eeds		(B) (D)	Remove the i		ier	
<b>59.</b>	Eating	g Fish is healthy a	as comp	pared to meat bec	ause fis	h contains :			
	<b>(A)</b>					Essential fatty acids			
	<b>(C)</b>	More essential	vitami	ns and Proteins	<b>(D)</b>	All the nutrie	nts of fo	od	
60.	In add	lition to proteins	and car	bohydrates, the o	ther ele	ments of nutrition	onal valu	e in milk include:	
	(A)	Potassium and	iron	EE	<b>(B)</b>	Calcium and	potassiui	m	
	<b>(C)</b>	Calcium, potas	sium a	nd iron	<b>(D)</b>	Calcium and	iron		

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Codo A						Codo A	Code
Code-A Mapping	Code-A_Answer Key	Code-A Difficulty	Code-A Subject	Code-A Topic	Code-A Skill	Code-A +Ve Marks	Code-A -Ve Mar
1	С	Easy	Mental Aptitude	Classification	Logical	5	1
2	A	Medium	Mental Aptitude	Analogy	Conceptual	5	1
3	С	Medium	Mental Aptitude	Blood Relation	Application	5	1
4	D	Medium	Mental Aptitude	Water Image	Logical	5	1
5	В	Easy	Mental Aptitude	Coding - Decoding	Memory	5	1
6	Α	Medium	Mental Aptitude	Paper Cutting & Folding	Memory	5	1
7	С	Easy	Mental Aptitude	Verbal and Non Verbal Series	Calculation	5	1
8	D	Difficult	Mental Aptitude	Figure Completion	Memory	5	1
9	В	Medium	Mental Aptitude	Logical Sequence of Words	Logical	5	1
10	С	Easy	Mental Aptitude	Mirror Image	Memory	5	1
11	С	Easy	Mathematics	Fraction and decimal	Calculation	6	1
12	С	Medium	Mathematics	Numbers	Conceptual	6	1
13	С	Medium	Mathematics	Integers	Application	6	1
14	Α	Easy	Mathematics	Fraction and decimal	Application	6	1
15	В	Medium	Mathematics	Fraction and decimal	Calculation	6	1
16	Α	Medium	Mathematics	Integers	Conceptual	6	1
17	А	Difficult	Mathematics	Integers	Application	6	1
18	D	Difficult	Mathematics	Mensuration	Conceptual	6	1
19	С	Medium	Mathematics	Integers	Application	6	1
20	С	Medium	Mathematics	Fraction and decimal	Calculation	6	1
21	D	Medium	Mathematics	Integers	Logical	6	1
22	В	Easy	Mathematics	Numbers	Logical	6	1
23	D	Medium	Mathematics	Integers	Calculation	6	1
24	A	Difficult	Mathematics	Numbers	Conceptual	6	1
25	C	Medium	Mathematics	Numbers	Conceptual	6	1
26	D		Mathematics		· ·	6	1
		Easy		Data handling	Calculation		
27	С	Easy	Mathematics	Fraction and decimal	Calculation	6	1
28	В	Medium	Mathematics	Integers	Logical	6	1
29	В	Difficult	Mathematics	Numbers	Logical	6	1
30	В	Difficult	Mathematics	Numbers	Application	6	1
31	D	Easy	Mathematics	Fraction and decimal	Calculation	6	1
32	С	Medium	Mathematics	Integers	Logical	6	1
33	В	Medium	Mathematics	Fraction and decimal	Calculation	6	1
34	В	Medium	Mathematics	Mensuration	Conceptual	6	1
35	В	Difficult	Mathematics	Fraction and decimal	Application	6	1
36	А	Medium	Mathematics	Data handling	Logical	6	1
37	D	Medium	Mathematics	Mensuration	Conceptual	6	1
38	D	Medium	Mathematics	Integers	Calculation	6	1
39	D	Medium	Mathematics	Mensuration	Application	6	1
40	А	Medium	Mathematics	Integers	Conceptual	6	1
41	В	Difficult	Mathematics	Integers	Conceptual	6	1
42	В	Difficult	Mathematics	Shapes	Logical	6	1
43	В	Easy	Mathematics	Fraction and decimal	Application	6	1
44	С	Medium	Mathematics	Data handling	Logical	6	1
45	В	Easy	Mathematics	Numbers	Logical	6	1
46	С	Easy	Science	The skeletal system	Conceptual	6	1
47	В	Easy	Science	The skeletal system	Memory based	6	1
48	A	Medium	Science	The skeletal system	Memory based	6	1
49	A	Easy	Science	Force and Energy	Application	6	1
50	С	Easy	Science	Force and Energy	Conceptual	6	1
51	D	Medium	Science	Force and Energy	Conceptual	6	1
52	С	Easy	Science	States of Matter	Memory based	6	1
		-					
53	D	Medium	Science	States of Matter	Application	6	1
54	С	Easy	Science	States of Matter	Application	6	1
55	В	Easy	Science	Deficiency and Communicable disease	Memory based	6	1
56	В	Easy	Science	Deficiency and Communicable disease	Memory based	6	1
57	A	Medium	Science	Deficiency and Communicable disease	Application	6	1
58	А	Medium	Science	Food and its components	Memory based	6	1
59	В	Easy	Science	Food and its components	Memory based	6	1
60	В	Medium	Science	Food and its components	Memory based	6	1

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