FIITJEE Talent Reward Exam - 2018

for students presently in

Class 8 Paper 1

Time: 3 Hours (9:30 am - 12:30 pm)

Code | 8000

Maximum Marks: 210

Instructions:

Caution: Class, Paper, Code as given above MUST be correctly marked on the answer OMR sheet before attempting the paper. Wrong Class, Paper or Code will give wrong results.

- 1. You are advised to devote 60 Minutes on Section-I, 60 Minutes on Section-II and 60 Minutes on Section-III.
- 2. This Question paper consists of 3 sections. Marking scheme is given in table below:

Section Subject		Overtien no	Marking Scheme for each question	
Section	Subject	Question no.	correct answer	wrong answer
SECTION - I	APTITUDE	1 to 30	+3	0
SECTION - II	PHYSICS (PART-A)	31 to 39	+2	0
	CHEMISTRY (PART-B)	40 to 48	+2	0
	MATHEMATICS (PART-C)	49 to 57	+2	0
	BIOLOGY (PART-D)	58 to 66	+2	0
SECTION - III	PHYSICS (PART-A)	67 to 78	+1	0
	CHEMISTRY (PART-B)	79 to 90	+1	0
	MATHEMATICS (PART-C)	91 to 102	+1	0
	BIOLOGY (PART-D)	103 to 114	+1	0

- 3. Answers have to be marked on the OMR sheet. The Question Paper contains blank spaces for your rough work. No additional sheets will be provided for rough work.
- 4. Blank papers, clip boards, log tables, slide rule, calculator, cellular phones, pagers and electronic devices, in any form, are not allowed.
- 5. Before attempting paper write your OMR Answer Sheet No., Registration Number, Name and Test Centre in the space provided at the bottom of this sheet.

Note: Please check this Question Paper contains all 114 questions in serial order. If not so, exchange for the correct Question Paper.

OMR Answer Sheet No.	÷
Registration Number	÷
Name of the Candidate	·
Test Centre	÷

Recommended Time: 60 Minutes for Section - I

Section - I

APTITUDE TEST

This section contains **30 Multiple Choice Questions** number **1 to 30**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

JIIOICE	3 (A), (D), (C) and (D), but of willen diver dive	13 COLLECT.
1.		en. Below the series, a number along with (1), (2)
	(3) (4) and (5) is given. You have to complete t	he series following the same sequence as that of
	the given series. Then answer the question that	follows.
	8, 4, 6, 15, 52.5, 236.25	
	4, $(1),$ $(2),$ $(3),$ $(4),$ (5)	
	What will come in place of (4)?	
	(A) 36.25	(B) 26.25
	(C) 16.25	(D) 32.75
2.	In the following question, which one set of lett	ters when sequentially placed at the gaps in the
	given letter series shall complete it?	
	W_YZ_X_ZW_Y_	
	(A) ZWZXX	(B) YWYYZ
	(C) XWYYZ	(D) XWYXZ
3.	Select the related word from the given alternativ	es.
	Flow: River:: Stagnant:?	
	(A) Pond	(B) Rain
	(C) Stream	(D) Canal

- 4. If '-' stands for division, '+' for multiplication, '÷' for subtraction and 'x' for addition, which one of the following equations is correct?
 - (A) $18 \div 3 \times 2 + 8 6 = 10$

(B) $18 - 3 + 2 \times 8 \div 6 = 14$

(C) $18 - 3 \div 2 \times 8 + 6 = 17$

- (D) $18 \times 3 + 2 \div 8 6 = 15$
- 5. Which of the following interchange of signs would make the equation correct?
 - $5 + 3 \times 8 12 \div 4 = 3$
 - (A) and \div

 $(B) + and \times$

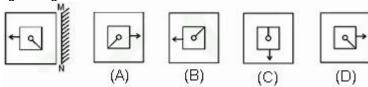
(C) + and ÷

- (D) + and -
- 6. Find the odd word from the given alternative.
 - (A) Shimla

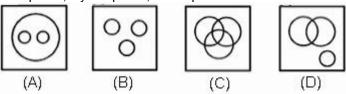
(B) Ooty

(C) Darjeeling

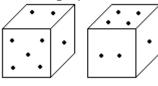
- (D) Agra
- 7. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



8. Identify the diagram that best represents the relationship among the given classes. Biosphere, Hydrosphere, Atmosphere



9. Two positions of dice are shown below. How many points will appear on the opposite to the face containing 5 points?



- (A) 3
- (C) 2

- (B) 1
- (D) 4
- 10. Select the correct combination of mathematical signs to replace * signs and to balance the equation.

48 * 4 * 6 * 3 * 30

- $(A) -, +, =, \times$
- $(C) \div, +, \times, =$

- (B) \div , =, x, + (D) -, =, x, +
- X is the husband of Y. W is the daughter of X. Z is the husband of W. N is the daughter of Z. 11. What is the relationship of N to Y?
 - (A) Cousin

(B) Niece

(C) Daughter

- (D) Grand daughter
- 12. Introducing a boy, a man says, "He is the son of the brother of my grandfather's son." How is the boy related to the man?
 - (A) Brother

(B) Grandfather

(C) Nephew

- (D) Cousin
- X walked 20 feet from A to B in the East direction. Then X turned to the right and walked 6 feet. 13. Again X turned to the right and walked 28 feet. How far is X from A?
 - (A) 28

(B) 9

(C) 10

(D) 27

14.	another right turn and travels 35 km in that	right turn and travels 50 km more. Next, she takes direction. How far is she now from her original
	position? (A) 75 km (C) 50 km	(B) 25 km (D) 20 km
15.	In the "PRELIMINARY" find out how many such of which has as many letters between them in the (A) one (C) three	n pairs of letters are there in the given word each ne word as in the English alphabet. (B) two (D) four
16.	Arrange the following words as per the order in 1. RESIGN 2. REPAIR 3. RESIDUE 4. RESEARCH 5. RESCUE (A) 4 5 3 1 2	(B) 2 5 4 3 1 (D) 5 4 3 1 2
17.	(C) 2 5 4 1 3 If the letters in the word INTERNATIONAL are will be in the middle in order after the rearrange (A) L (C) O	rearranged in the alphabetical order, which one
18.		ts in the number 7986032451 are interchanged. digits are interchanged and so on. Which of the after the rearrangement? (B) 6 (D) 0
Space for Rough Work		

19.	In a class of 60, where girls are twice that of there are 9 girls ahead of Kamal, how many bo (A) 3 (C) 12	boys, Kamal ranked seventeenth from the top. If ys are after him in rank? (B) 7 (D) 23
20.		orth. Amit is eleventh from the left and Deepak is r will Shreya, who is third to the right of Amit in the
	(A) 2nd (C) 4th	(B) 3rd (D) 5th
21.	Find the missing number from the alternatives. (A) 125 (C) 225	(B) 175 (D) 250
22.	The angle between the minute hand and the ho (A) 80° (C) 60°	our hand of a clock when the time is 8.30, is: (B) 75° (D) 105°
23.	If FRIEND is coded as HTKGPF then REVEAL (A) TGXFCN (C) TXGNCG	will be coded as: (B) TGXNGC (D) TGXGCN

24.	In a certain code language, "CUTE" is written a "RESCUE" written in that code language? (A) 413921 (C) 423911	us "9251" and "REST" is written as "4135". How is (B) 431291 (D) 413912
25.	have to consider the statements to be true even	ven each followed by two conclusions I and II. You en if they seem to be at variance from commonly given conclusions, if any, follows from the given (B) Only either I or III follows (D) Only I and II follow
A , B , but sit left of person	opposite each other. G is the second to the right C and fourth to the right of D. E is second to the	on carefully and answer the following questions. table. Only two of them are not facing the centre of A and third to the right of C. B is second to the right of H and is facing the centre. One of the pour of G and A both. D sits second to the right of
26.	Who among the following is an immediate neight (A) C,B (C) B,H	abours of E? (B) A,F (D) G,D
27.	Who among the following is second to the left of (A) B (C) G	f F? (B) E (D) D
28.	Who among the following sits second to the right (A) H (C) D	nt of C? (B) F (D) A
29.	Who among the following are not facing the cental (A) CA (C) GF	tre? (B) CF (D) EB
30.	Who among the following is third to the left of B (A) G (C) C	? (B) H (D) F

Recommended Time: 60 Minutes for Section - II

Section - II

PHYSICS - (PART - A)

This part contains **9 Multiple Choice Questions** number **31 to 39**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

31.	What is the momentum of an object of mass m, (A) $(m\upsilon)^2$	moving with a velocity υ ? (B) $m\upsilon^2$
	(C) $\frac{1}{2}$ m v^2	(D) mυ
32.	Newton's second law of motion gives us a meas (A) force (C) mass	sure of (B) inertia (D) acceleration
33.	The S.I. unit of thrust is (A) Newton (C) N m	(B) N m ⁻¹ (D) Pascal
34.	Fluids are (A) solids and liquids (C) solids and gases	(B) liquids and gases (D) only liquids
35.	An instrument commonly used in laboratory to p (A) sonar (C) tuning fork	roduce a sound of some particular frequency is (B) electric bell (D) a stretched wire
36.	Galileo's law of inertia is another name for Newt (A) first (C) second	on's law of motion (B) third (D) none of these
37.	In which of the three mediums: air, water and st (A) Air (C) Steel	eel, does sound travel the fastest? (B) Water (D) None of these
38.	Buoyant force exerted by different fluids on a giv (A) same (C) zero	ven body is (B) different (D) negligible
39.	other is	quantity which is transferred from one place to the
	(A) mass (C) momentum	(B) force (D) energy

CHEMISTRY - (PART - B)

This part contains **9 Multiple Choice Questions** number **40 to 48**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

40.	The most abundant element in the universe is (A) hydrogen (C) helium	(B) oxygen (D) carbon
41.	The major raw materials for rayon is obtained from (A) wood (C) petroleum	om (B) coal (D) both coal and petroleum
42.	The conversion of wood into coal occurs by a years and is known as(A) catenation (C) pyrolysis	biochemical process that takes over millions of (B) carbonization (D)destructive distillation
43.	Select the one that occurs in native form: (A) Calcium (C) Sodium	(B) Aluminium (D) Gold
44.	Main constituent of marsh gas is (A) ethane (C) ethyne	(B) acetylene (D) methane
45.	Which of the following contains isoprene units? (A) Natural rubber (C) Polyethylene	(B) Nylon-6, 6 (D) Dacron
46.	Now-a-days coal gas is used as a source of (A) light (C) electricity	(B) heat (D) steam
47.	Which among the following alloys contain mercu (A) Alnico (C) Stainless steel	rry as one of its constituents: (B) Solder (D) Zinc Amalgam
48.	Correct full form of abbreviation PET is (A) Polyethylene terephthalate (C) Polyacetylene terephthalate	(B) Polyethane terephthalate (D) None of these

MATHEMATICS - (PART - C)

This part contains **9 Multiple Choice Questions** number **49 to 57**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

- 49. The value of $\sqrt{10 + \sqrt{25 + \sqrt{108 + \sqrt{154 + \sqrt{225}}}}}$ is
 - (A) 4
 - (C) 8

- (B) 6
- (D) 10
- 50. There are two positive numbers in the ratio 5:8. If the larger number exceeds the smaller by 15. Find the smaller number
 - (A) 25

(B) 30

(C) 20

- (D) 35
- 51. (x+4)(x+3)-(x-4)(x-3) is equal to
 - (A) $2x^2 14x + 24$

(B) $2x^2 + 14x - 24$

(C) 14x

- (D) 24
- 52. What number should be divided by $\sqrt{0.25}$ to give the result 25?
 - (A) 25

(B) 50

(C) 12.5

- (D) 125
- 53. If $\frac{5}{7}$ of 49 + 20% of 130 = x + 49, then x =
 - (A) 10

(B) 12

(C) 16

(D) 18

- 54. The least number which is a perfect square and has 540 as a factor.
 - (A) 8100 (C) 4800

(B) 6400

- (D) 3600
- 55. Diagonals of a rhombus are 6 cm and 8 cm respectively. The side will be equal to (in cm)

(C) 5

- (D) 6
- Which of the following is not a pythagorean triplet? 56.
 - (A) (8, 15, 17)

(C) (18, 80, 82)

- (B) (12, 35, 38) (D) (10, 24, 26)
- A rational number between $\frac{-2}{3}$ and $\frac{1}{2}$ is 57.

BIOLOGY - (PART - D)

This part contains **9 Multiple Choice Questions** number **58 to 66.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

58.	Moat, Dhekli and Rahat are different (A) Traditional methods of cultivation (C) Traditional methods of seed sowing	(B) Traditional methods of weeding (D) Traditional methods of irrigation
59.	(A) Vaccination (C) Medication	es active immunity to a particular disease. (B) Antibiotics (D) none of these
60.	The Ranthambore National Park and wildlife sar (A) Odisha (C) Madhya Pradesh	nctuary is located at (B) Rajasthan (D) Uttar Pradesh
61.	Which of the following is not true for fertilizers? (A) They increase the yield (B) Their excessive use disturbs the balance of (C) They are generally used in small quantity (D) They are environment friendly	nutrients in soil
62.	Which one of the following agricultural implement (A) Sickle (C) Harvester	nt is used for soil preparation? (B) Plough (D) None
63.	Tuberculosis is caused by (A) Bacillus (C) Paramyxovirus	(B) Plasmodium (D) Mycobacterium tuberculi
64.	Food preservation ensures that the food lasts f the following methods is used to preserve the fo (A) Drying and dehydration (C) Saltation	or a longer time without getting spoiled. Which of od materials? (B) Sterilization (D) All of these
65.	The conversion of Ammonia (NH ₃) to Nitrite (NC (A) Nitrification (C) Deamination	0 ₂ -) and then to Nitrates (NO ₃ -) is called– (B) Denitrification (D) Nitrogen fixation
66.	Which of these is used to store grains on a large (A) Gunny bags (C) Containers	e scale? (B) Silos (D) none of these

Recommended Time: 60 Minutes for Section - III

Section - III

PHYSICS - (PART - A)

This part contains 12 Multiple Choice Questions number 67 to 78. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

67.	The forces of action and reaction are (A) always equal only (C) always equal but in same direction	(B) always equal and opposite (D) always unequal and opposite
68.	The inertia of an object tends to cause the (A) to increase its speed (B) to decrease its speed (C) to resist any change in its state of rest (D) to decelerate due to friction	
69.	A beaker is filled with a liquid of density pressure on the walls is (A) 0 (C) h ρ g/2	ρ upto a height h. If the beaker is at rest, the mean (B) h ρ g (D) 2 h ρ g
70.	Which of the following gas is the densest of (A) Air (C) Ozone	f all? (B) Chlorine (D) Argon
71.	A passenger in a moving train tosses a contrain is (A) accelerated (C) retarded	oin which falls behind him. It means that motion of the (B) uniform (D) along circular tracks

72.	When each side of a cuboid is doubled, its volume (A) two times (C) eight times	ne becomes (B) four times (D) sixteen times
73.	The construction of a submarine is based on (A) Archimedes principle (C) Pascal's law	(B) Bernoulli's principle (D) Newton's law
74.	Rocket works on the principle of conservation of (A) mass (C) momentum	(B) energy (D) velocity
75.	A body floats in a liquid if the buoyant force is (A) zero (C) equal to its weight	(B) less than its weight (D) none of these
76.	The force of friction (F) is equal to reaction) (A) $\mu R/2$ (C) $2\mu R$	(where μ = coefficient of friction and R = normal (B) μR (D) $\mu R/3$
77.	The speed of sound in a certain medium is 960 minute, the wavelength is (A) 2 m (C) 4 m	m/s. If 3600 waves pass over a certain point in 1 (B) 8 m (D) 16 m
78.	A source of frequency 500 Hz emits waves of v 300 m? (A) 70 s (C) 12 s	vavelength 0.2 m. How long does it take to travel (B) 60 s (D) 3 s

CHEMISTRY - (PART - B)

This part contains 12 Multiple Choice Questions number 79 to 90. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

79.	Which of the following is a step-growth polymer (A) Styrene (C) Teflon	? (B) Nylon-6, 6 (D) Rubber
80.	What is the percentage of gold in a 22 carat gold (A) 75.6% (C) 82.6%	d bar? (B) 91.6% (D) 66.6%
81.	The non-combustible element of producer gas is (A) CO (C) H ₂	(B) N ₂ (D) H ₂ O
82.	Coal is mainly carbon, also having some other et (A) oxygen, hydrogen, nitrogen and Sulphur (B) chlorine, nitrogen, sulphur and helium (C) sulphur, phosphorus, iodine and oxygen (D) bromine, nitrogen, phosphorus and hydroge	
83.	For vulcanization of rubber we use which one of (A) Sulphur (C) Chlorine	the following non-metal? (B) Phosphorus (D) Carbon
84.	Caprolactam is the monomeric unit of which poly (A) Nylon 6,6 (C) Nylon 6	ymer? (B) Nylon-2,6 (D) None of these

85.	The gas which is present in the coal mines and (A) methane (C) hydrogen	is the cause of explosion in coal mines is (B) carbon monoxide (D) carbon dioxide			
86.	Artificial silk is a modified (A) polyester (C) polysaccharide	(B) polyamide (D) polythene			
87.	Study the following equations and mark the correct option. $2A + 2B \longrightarrow 2AOH + H_2$				
	$S + O_2 \longrightarrow C$				
	$C + B \longrightarrow D$				
	(A) Na H ₂ O SO ₂ H ₂ SO ₃ (C) K H ₂ O SO ₂ H ₂ SO ₄	(B) Na H ₂ O SO ₂ H ₂ SO ₄ (D) K H ₂ O SO ₃ H ₂ SO ₃			
88.	We can use coke (A) as an oxidizing agent (C) in printers ink	(B) as a reducing agent (D) as electrode			
89.	Which of these elements is used as an antisepti (A) Carbon (C) Nitrogen	c in medicine? (B) Oxygen (D) Iodine			
90.	Match the following: Column-I (P) Raincoats (Q) Plugs and switches (R) Bags for storage (S) Thermocol (A) $(P) \rightarrow (4)$, $(Q) \rightarrow (2)$, $(R) \rightarrow (3)$, $(S) \rightarrow (1)$	Column -II (1) Styrofoam (2) Bakelite (3) Polythene (4) PVC (B) $(P) \rightarrow (4)$, $(Q) \rightarrow (3)$, $(R) \rightarrow (2)$, $(S) \rightarrow (1)$			
	$(C) (P) \rightarrow (1) (O) \rightarrow (2) (R) \rightarrow (3) (S) \rightarrow (4)$	(D) (P) \rightarrow (4), (Q) \rightarrow (3), (N) \rightarrow (2), (S) \rightarrow (1)			

MATHEMATICS - (PART - C)

This part contains 12 Multiple Choice Questions number 91 to 102. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

91. What is the least number of four digits, when increased by 7, divisible by 35, 48 & 56

(A) 1480

(B) 1473

(C) 1487

(D) 1673

92. If each angle of a regular polygon is 135°. How many sides does it have.

(A) 8

(B) 5

(C) 6

(D) 7

93. If p is the probability of an event, then

(A) 0 < p

(B) p > 1

(C) 0

- (D) $0 \le p \le 1$
- 94. The number of revolutions a wheel of diameter 40 cm makes in traveling a distance of 176 m is equal to

(A) 140

(B) 150

(C) 160

(D) 166

95. If $a^2 - b^2 = 36$ and a + b = 4, then $(a - b)^2 = 1$

(B) 9 (D) 44

(A) 36 (C) 81

What is the percentage of least number in the greatest number if $\frac{3}{5}$, $\frac{9}{5}$, $\frac{1}{5}$, $\frac{7}{5}$ are arranged in

ascending order?

(A) $11\frac{1}{9}\%$

(B) 10%

(C) 20%

96.

(D) 25%

- The value of $0.\overline{23} + 0.\overline{22}$ is 97.
 - (A) $0.\overline{45}$

(B) $0.\overline{43}$

(C) $0.4\overline{5}$

(D) 0.45

- If $x + \sqrt{15} = 4$ then $x + \frac{1}{x} = ?$ 98.
 - (A) 2 (C) 8

(B) 4

- (D) 1
- 99. If median and mean of same data are 6 and 4 respectively then mode =
 - (A) 6

(B) 7

(C) 9

- (D) 10
- P(x) = 2x and $Q(x) = 8x^2$ then LCM of p(x) and q(x) is 100.
 - (A) $16x^3$

(B) $16x^2$

(C) $8x^3$

- (D) $8x^{2}$
- The multiplicative inverse of (x+1)+101.
 - (A) $\frac{1}{(x+1)} + (x-1)$

(C) $\frac{x-1}{x^2}$

- 102. ABCD is a rhombus such that $\angle ACB = 40^{\circ}$. Then $\angle ADB$ is
 - (A) 40°

(B) 45°

(C) 50°

(D) 60°

BIOLOGY - (PART - D)

This part contains 12 Multiple Choice Questions number 103 to 114. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

103.	Cod liver oil from fish is rich in which of the follow (A) Vitamin B_{10} (C) Vitamin D	wing vitamin? (B) Vitamin C (D) none of the above
104.	Amount of nitrogen (N_2) in the atmosphere is:- (A) 58% (C) 78%	(B) 68% (D) 88%
105.	Scientist who discovered fermentation was (A) Alexander Fleming (C) John Mendel	(B) Louis Pasteur (D) Edward Jenner
106.	The place meant for conservation of biodiversity (i) Zoological garden (iii) Wildlife Sanctuary	in their natural habitat are (ii) Botanical garden (iv) National Park
	(A) (i) & (ii) (C) (iii) & (iv)	(B) (ii) & (iii) (D) (i) & (iv)
107.	Combines are used for:- (A) Sowing of seeds (C) Threshing	(B) Harvesting the crop (D) Harvesting and threshing both
108.	Mustard is Rabi crop, whereas is khar (A) Barley (C) Gram	rif crop. (B) Cotton (D) Pea
109.	Plant disease citrus canker is caused by (A) Virus (C) Bacteria	(B) Fungi (D) none of these

110.	Which of the following is not a fungi? (A) Paramecium (C) Penicillium	(B) Bread mould (D) Aspergillus
111.	The species which are at the verge of the extinct (A) Endemic (C) Endangered	ion are (B) Extinct (D) none of these
112.	Conservation within the natural habitat is known (A) In situ conservation (C) In vivo conservation	as– (B) Ex situ conservation (D) Ex vivo conservation
113.	Rhizobium (a bacteria) which fixes atmospheric (A) roots of leguminous plants (C) stem of leguminous plants	nitrogen are found in nodules growing in (B) leaves of leguminous plants (D) all of the above
114.	The weed which grows along with every crop is: (A) Amaranthus (C) Bazra	(B) Wheat (D) Both (A) & (B)

FIITJEE TALENT REWARD EXAM

CLASS – VIII (PAPER – 1) ANSWERS

1.	В	2.	D	3.	Α	4.	В
5.	Α	6.	D	7.	Α	8.	Α
9.	D	10.	С	11.	D	12.	D
13.	С	14.	С	15.	С	16.	В
17.	D	18.	D	19.	С	20.	С
21.	С	22.	В	23.	D	24.	Α
25.	В	26.	Α	27.	D	28.	С
29.	В	30.	В	31.	D	32.	Α
33.	Α	34.	В	35.	С	36.	Α
37.	С	38.	В	39.	D	40.	Α
41.	Α	42.	В	43.	D	44.	D
45.	Α	46.	В	47.	D	48.	Α
49.	Α	50.	Α	51.	С	52.	С
53.	В	54.	Α	55.	С	56.	В
57.	В	58.	D	59.	Α	60.	В
61.	D	62.	В	63.	D	64.	D
65.	Α	66.	В	67.	В	68.	С
69.	С	70.	В	71.	Α	72.	С
73.	Α	74.	С	75.	С	76.	В
77.	D	78.	D	79.	В	80.	В
81.	В	82.	Α	83.	Α	84.	С
85.	Α	86.	С	87.	Α	88.	В
89.	D	90.	Α	91.	D	92.	Α
93.	D	94.	Α	95.	С	96.	Α
97.	Α	98.	С	99.	D	100.	D
101.	С	102.	С	103.	С	104.	С
105.	В	106.	С	107.	D	108.	В
109.	С	110.	Α	111.	С	112.	Α
113.	Α	114.	Α				