FIITJEE Big Bang Edge Test - 2022

for students presently in Class 6 (going to 7) (Paper 1)

Time: 3 Hours (9:00 am – 12:00 pm)

CODE: 67-1

Maximum Marks: 240

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.

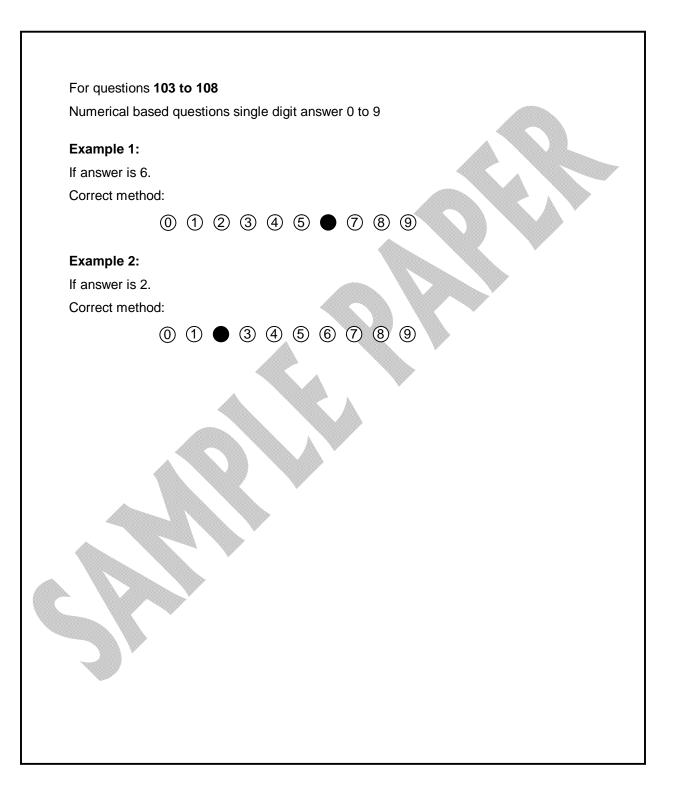
- 1. You are advised to devote 35 Minutes on Section-I, 35 Minutes on Section-II, 50 Minutes on Section-III, 30 Minutes on Section-IV and 30 Minutes on Section-V.
- 2. This Question paper consists of 5 sections. Marking scheme is given in table below:

Section	Subject		Question	Question Marking Scheme for each q		
Section			no.	Correct answer	Wrong answer	
SECTION - I	APTITUDE TEST		1 to 12	+3	0	
SECTION -1	AFTITODE TEST		13 to 18	+4	0	
	PHYSICS (PA	RT-A)	19 to 22	+2	0	
SECTION II	CHEMISTRY (PA	RT-B)	23 to 26	+2	0	
SECTION - II	MATHEMATICS (PA	RT-C)	27 to 31	+2	0	
	BIOLOGY (PA	RT-D)	32 to 36	+2	0	
	PHYSICS (PA	RT-A)	37 to 48	+1.5	0	
	CHEMISTRY (PA	RT-B)	49 to 60	+1.5	0	
SECTION - III	MATHEMATICS (PA	RT-C)	61 to 72	+1.5	0	
	BIOLOGY (PA	RT-D)	73 to 84	+1.5	0	
	PHYSICS (PA	RT-A)	85 to 88	+3	0	
SECTION - IV	CHEMISTRY (PA	RT-B)	89 to 92	+3	0	
	BIOLOGY (PA	RT-C)	93 to 96	+3	0	
SECTION V	MATHEMATICS (PA	RT-A)	97 to 102	+3	0	
SECTION - V	MATHEMATICS (PA	(RT-B)	103 to 108	+3	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 below.
- 6. See method of marking of bubbles at the back of cover page for question no. 103 to 108.

Note: Please check this Question Paper contains all 108 questions in serial order. If not so, exchange for the correct Question Paper.

OMR Answer Sheet N	lo. :
Registration Number	:
Name of the Candida	te:
Test Centre	<u> </u>



Recommended Time: 35 Minutes for Section - I

Section - I

APTITUDE TEST

This section contains 18 Multiple Choice Questions number 1 to 18. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

1.	Find the next term in th (A) 15Q	e sequence 7G, 11K, 13l (B) 17Q	M, (C) 15P	(D) 17P
2.	In the following question between the first two work Cap: Head:: specs: (A) Eye		lds same relation with th	e third word as there is (D) Face
3.	(X) (1)	figure which contains fig		
	(A) 1	(B) 2	(C) 3	(D) 4
4.	Arrange the following ir 1) Curd, (A) 2, 5, 4, 3, 1	n a meaningful order:- 2) Grass (B) 4, 2, 5, 3, 1	3) Butter (C) 5, 2, 4, 1, 3	4) Milk 5) Cow (D) 5, 2, 3, 4, 1
5.	Which value will come 12, 22, 69, 272, 1365, (A) 6830	in the place of question n ? (B) 8184	nark (?) (C) 8195	(D) 8196
6.	If 234 = 4916, 562 = 25 (A) 25436	364, then what will be the (B) 250436	e value for 526 (C) 42536	(D) 362504

SAMPLE PAPER-BBE-2022-C-VI-(Paper-1)-AT+S&M-4

7.	If 'REQUEST' is written (A) BDJE	as 'S2R52TU', how will (B) 1394	'ACID' be written ? (C) B3J4	(D) None of these
8.	If 7 + 3 = 421, 11 + 7 = (A) 444	477 and 9 + 5 = 445, th (B) 412	en 6 + 2 = ? (C) 475	(D) 487
9.	•	vord cannot be formed fr	om the given words?	
	CONSTRUCTION (A) CAUTION	(B) COINS	(C) NOTION	(D) SUCTION
10.		ooth turn right and again	directions for 3 km Mani walk 3 km each. Both tu	
	(A) East	(B) South	(C) South-East	(D) North-West
Direction		T ,U and V are standing T. boy between them. oys between them. te right of u.	swer the questions given g in a line.	below:-
11.	R is standing between : (A) P and U	(B) S and V	(C) P and S	(D) None of these
12.		5, then which of the follo	us 4, D is coded as 7, T is twing is the coded form o (C) 4 5 2 7 83	s coded as 2, M is coded of QKTBFM ? (D) None of these
13.		oes not score the highes	s in an examination. If B t marks then which of th (C) C	s scored more marks than e following has the (D) D
14.	In the following question	n, select the odd letter gi	roup from the given alterr (C) E S G T	• •

15. Find out the alternative figure which contains figure (X) as its part. (1) (2) (B) 2 (3) (4)(D) 4 16. Find out the alternative figure which contains figure (X) as its part. (1) (3)(B) 2 (C) 3 (D) 4 17. Find out the alternative figure which contains figure (X) as its part. (2) (B) 2 (3)(4)(A) 1 (D) 4 (C) 3 Study the diagram and identify the region which represents students who study both physics 18. and chemistry but not mathematics.



Chemistry

Physics -

Space for Rough Work

Recommended Time: 35 Minutes for Section - II

Section - II

PHYSICS - (PART - A)

This part contains 4 Multiple Choice Questions number 19 to 22. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

- 19. Which of the following shows a random motion
 - (A) motion of a fan
 - (C) dogs playing in a playground
- (B) Train on a straight bridge
- (D) None of these
- 20. A speed of 90 kmph is equivalent to
 - (A) 25 m/s
 - (C) 30 m/s

- (B) 20 m/s
- (D) 40 m/s
- 21. 1 man walks 70 km North, 80 km South & then 20 km North. Find his displacement & distance
 - (A) 20 km, 170 km

(B) 50 km, 180 km

(C) 10 km, 170 km

- (D) 100 km, 180 km
- 22. The image formed by a plane mirror
 - (A) cannot be cast on screen
- (B) is real

(C) is always virtual

(D) both (A) and (C)

CHEMISTRY - (PART - B)

This part contains **4 Multiple Choice Questions** number **23 to 26**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

- Yarn is woven to get fabric using

 (A) Charkha
 (B) Spinning machines
 (D) Knitting needles

 Which is a magnetic material?

 (A) Copper
 (B) Nickel
 (C) Aluminium
 (D) Oxygen
- 25. Identify the sublimiable salt (A) NaCl (B) KCl (C) NH₄Cl (D) MgCl₂
- 26. Making a dough from flour is a ____ change
 (A) Physical reversible
 (C) Chemical reversible
 (D) Physical irreversible



MATHEMATICS - (PART - C)

This part contains **5 Multiple Choice Questions** number **27 to 31**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

27. The length of longest tape which can be used to measure exactly the length 7m, 3m 85 cm and 12m 95 cm. (A) 35 cm (B) 30 cm (C) 40 cm (D) 45 cm Two angles of a triangle are complementary. The third angle is 28. (B) 45° $(C) 36^{\circ}$ (D) 90° 29. An isosceles trapezium has (A) equal parallel sides (B) equal non parallel sides (C) equal opposite sides (D) None of these 30. A circle has (A) no line of symmetry (B) one line of symmetry (D) an unlimited number of lines of symmetry (C) two lines of symmetry 31. If 1A2B5 is exactly divisible by 9, then the least value of (A + B) is (A) 0(B) 1 (C) 2 (D) 10

BIOLOGY - (PART - D)

This part contains **5** Multiple Choice Questions number **32 to 36**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

32.	For photosynthesis plants need (A) Carbon dioxide (C) Sunlight	(B) Water (D) All of these
33.	Small, soft stem plants are called as (A) Herbs (C) Trees	(B) Shrubs (D) Tendrils
34.	Female reproductive part of a plant is called as (A) Stamen (C) Petiole	(B) Anther (D) Pistil
35.	Nodes and Internodes are present in (A) Leaves (C) Roots	(B) Stem (D) Flower
36.	Exchange of gases in plants occurs through (A) Stomata (C) Pollens	(B) Flower (D) Style

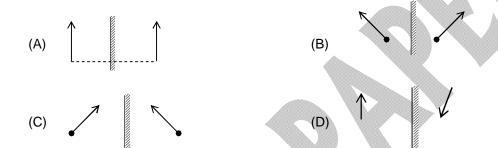
Recommended Time: 50 Minutes for Section - III

Section - III

PHYSICS - (PART - A)

This part contains 12 Multiple Choice Questions number 37 to 48. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

37. Which one is wrong image formation:



- 38. Consider the motion of the tip of the second hand of a clock. In 1 minutes
 - (A) the distance covered is zero
- (B) the displacement is zero

(C) the average speed is zero

(D) none of these

- 39. 144 minutes is equal to
 - (A) 1 hour

(B) 0.1 hour

(C) 2.4 hours

- (D) 0.5 hour
- 40. Calculate the value of 65 m s^{-1} in km h^{-1}
 - (A) 90

(B) 50

(C) 234

- (D) 25
- 41. The CGS unit of speed is _____
 - (A) second

(B) cm s⁻¹

(C) Both (A) and (B)

(D) hour

42.	A man travels 80 m distance in 10 sec and 220 r (A) 2 m/s. (C) 10 m/s.	n distance in 20 sec. His average speed will be (B) 4 m/s. (D) 25 m/s.
43.	12000 minutes is equal to (A) 2000 hours (C) 20 hours	(B) 200 hours (D) 1 hour
44.	Which of these is not a luminous source of light? (A) Stars (C) Sun	(B) Venus (D) both (B) and (C)
45.	In Solar eclipse which among the earth, moon, s (A) Earth (C) Sun	un lies between other two? (B) Moon (D) none of these
46.	Height of the image formed by a plane mirror, of from the mirror is (A) 10 m (C) 2 m	an object of 10 m high kept at distance of 10 m $$ (B) 20 m $$ (D 0.2 m $$
47.	Motion of a Mars is an example of (A) Periodic motion (C) Oscillatory motion	(B) Circular motion (D) both (A) and (C)
48.	An athlete runs along a circular track of radius 42 by the athlete to complete 2 rounds is (A) 264 s (C) 52.8 s	2 m with a speed of 20 m/s then the time taken (B) 26.4 s (D) incomplete information

CHEMISTRY - (PART - B)

This part contains 12 Multiple Choice Questions number 49 to 60. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

49.	Soda water contains excess in dissolved state.				
	(A) H ₂	(B) CO ₂			
	(C) O_2	(D) N_2			
	(3) 32				
50.	For any substance, its molting point will be the	ome as its point			
50.	For any substance, its melting point will be the s				
	(A) Vaporization	(B) Sublimation			
	(C) Freezing	(D) Condensation			
51.	Dissolution of a solute in a solvent depends upo	n			
	(A) Pressure	(B) Temperature			
	(C) Amount of the solute	(D) All of these			
52.	The purest form of natural water is				
JZ.	(A) Rain water	(B) Ground water			
	(C) Surface water	(D) Sea water.			
	14 (1)				
53.	Which gas is used to fill weather observation ba				
	(A) Hydrogen	(B) Helium			
	(C) Oxygen	(D) Chlorine			
54.	The reverse process of boiling				
	(A) Vapourization	(B) Distillation			
	(C) Condensation	(D) None of these			
	(c) cemacineamen	(2)			
55.	Which materials make a heterogeneous mixture	2			
55.	(A) Sand + Water	(B) Salt + Water			
	(C) Alcohol + Water	(D) Ink + Water			

56. The first step for separating the constituent of a muddy water is (A) Decantation (B) Evaporation (D) Filtration (C) Sedimentation 57. Which of the following substance will float on water? (B) Stone (A) Plastic (C) Iron nail (D) Hard metal 58. Burning of paper is (A) Fast change (B) Irreversible change (C) Chemical change (D) All of these The device in a loom that carries yarn back and forth across the lengthwise yarn is 59. (B) Shuttle (C) Weft (D) Bobbins 60. The left over substance in the filter paper during filtration is (A) Filtrate (B) Solvent (C) Residue (D) Solute

MATHEMATICS - (PART - C)

This part contains 12 Multiple Choice Questions number 61 to 72. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

61.	(A) 6	(B) 0	(C) 4	(D) 3
62.	Find ratio of slant height (A) 1: $\sqrt{5}$	It to that of radius of cone (B) $\sqrt{5}:1$	e, if height of cone is dou (C) 1:2	ble the radius (D) 2 : 1
63.	(A) same vertex	adjacent angles if they ha	(B) common arm	
64.	$3.\overline{4} + 5.\overline{8} - 7.\overline{9} = $			
	(A) $\frac{4}{3}$	(B) $\frac{8}{5}$	(C) $\frac{7}{9}$	(D) $\frac{5}{4}$
65.	If $\frac{a}{3} = \frac{b}{4} = \frac{c}{7}$, then $\frac{a+b}{c}$	$\frac{c}{c}$ is equal to		
	(A) 7	(B) $\frac{1}{2}$	(C) $\frac{1}{7}$	(D) 2
66.	If the sides of a square (A) Two times	are doubled then how m (B) three times	uch times its area becom (C) four times	nes ? (D) six times
67.	when 2n is divided by 3 (A) 1	which when divided by 3 g	(B) 2	
	(C) 0	· · · · · · · · · · · · · · · · · · ·	(D) can not say anythin	y

Space for Rough Work

- 68. In the adjoining figure, value of $\angle x$ is equal to (A) 89° (B) 98° (C) 108° (D) 118°
- 69. Diagonals of a rhombus are 8 cm and 6 cm respectively, its side is _____

 (A) 5 cm
 (B) 6 cm
 (C) 7 cm
 (D) cannot be determined
- 70. In a $\triangle DEF$, $\angle D = 45^{\circ}$ and $\angle E$ is less than $\angle D$, then the triangle is (A) acute (B) Right (C) obtuse (D) None of these
- 71. What is the value of $\left(\frac{P+Q}{P-Q}\right)$ if $\frac{P}{Q} = 7$?
 - (A) $\frac{1}{3}$ (B) $\frac{2}{3}$ (C) $\frac{4}{3}$
- 72. Find unit digit of product $11\times12\times13\times14\times15\times16$?
 (A) 2 (B) 6 (C) 4 (D) 0

BIOLOGY - (PART - D)

This part contains 12 Multiple Choice Questions number 73 to 84. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

73.	Sweet potato is an example of (A) Root (C) Fruit	(B) Stem (D) Seed
74.	Which of the following is a root? (A) Potato (C) Sugarcane	(B) Carrot (D) Rose
75.	Which part of the mustard is edible? (A) Flower (C) Seed	(B) Root (D) Embryo
76.	Part of the plant responsible for sexual reproduct (A) Stem (C) Leaves	tion. (B) Root (D) Flower
77.	Which part of the plant is responsible for water a (A) Root (C) Leaves	absorption? (B) Stem (D) Flower
78.	Stalk of the flower is called. (A) Pedicel (C) Petiole	(B) Thalamus (D) Petal
79.	Edible part of Pomegranate is (A) Flower (C) Sepal	(B) Seeds (D) Whole fruit

80. Which is an example of shrub? (A) Spinach (B) Guava (C) Mint (D) Tomato 81. Scurvy is caused due to deficiency of (B) Vitamin B (A) Vitamin A (C) Vitamin C (D) Vitamin D 82. Carbohydrates are present in (A) Rice (B) Carrot (C) Lemon (D) Pulses 83. Which of the following is not a part of a plant? (A) Style (B) Anther (C) Limb (D) Stomata 84. Night blindness can be cured by eating (A) Pumpkin (B) Amla (C) Carrots (D) Both (A) and (C)

Recommended Time: 30 Minutes for Section – IV Section – IV

PHYSICS - (PART - A)

This part contains **4 Multiple Choice Questions** number **85 to 88**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

- 85. Read the given statements and select the correct option:
 - **Statement 1:** The displacement of a moving body may be zero, even distance can be finite.

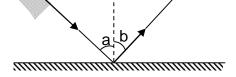
Statement 2: If a body moves such that finally it arrives at initial point, then displacement is zero while distance is finite.

- (A) Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1.
- (B) Both statements 1 and 2 are true but statement 2 is not the correct explanation of statement 1.
- (C) Statement 1 is true and statement 2 is false.
- (D) Statement 1 is false and statement 2 is true.
- 86. What causes a moving body to change in its state of motion?
 - (A) Its acceleration

(B) Force

(C) Its speed

- (D) Its weight
- 87. According to the laws of reflection one can say that if a = 30 degree then b =
 - (A) $\angle a = \angle b = 30$ degree
 - (B) ∠a< ∠b
 - (C) $\angle a > \angle b$
 - (D) none of these



- 88. Which of the following is an example of random motion?
 - (A) Car moving on a straight road
- (B) Athlete running on a circular track
- (C) To-and-fro motion of a pendulum
- (D) Motion of a mosquito in marriage hall.

CHEMISTRY - (PART - B)

This part contains **4 Multiple Choice Questions** number **89 to 92**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

89.	Woolen fibres have (A) Water, Conductor (C) Water, insulator	trapped between them which acts as an of heat. (B) Air, conductor (D) Air, insulator
90.	A mixture of small stones (A) Winnowing (C) Hand picking	and sand can be separated by (B) Sieving (D) Threshing
91.	. ,	on fibres are separated from seeds is called (B) Ginning (D) Retting
92.	Loading speeds up (A) Sublimation (C) Sedimentation	(B) Decantation (D) Filtration

BIOLOGY - (PART - C)

This part contains **4 Multiple Choice Questions** number **93 to 96**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

- 93. Water in xerophytes is stored in
 - (A) Spines
 - (C) Stem

- (B) Roots
- (D) Root hair
- 94. Which of the following is a function of leaves?
 - (A) Photosynthesis
 - (C) Transpiration

- (B) Exchange of gases
- (D) All of these
- 95. Which of the following has fibrous root?
 - (A) Mango
 - (C) Potato

- (B) Wheat
- (D) Peas

- 96. Test for carbohydrates are
 - (A) Iodine test
 - (C) Fehling solution

- (B) Spot test
- (D) Biuret test



Recommended Time: 30 Minutes for Section - V Section - V MATHEMATICS - (PART - A)

This part contains 6 Multiple Choice Questions number 97 to 102. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

97.	Two numbers A and B a 6% of A and 8% of B. Fi		5% of A and 4% and B is	s two-third of the sum of
	(A) 2:3	(B) 1 : 1	(C) 3:4	(D) 4:3
98.	If a ray stands on a line, (A) 90°	then the sum of the adja (B) 180°	acent angles so formed in (C) 270°	s (D) 360°
99.	Three cubes of sides 3 onew cube is	cm, 4 cm and 5 cm are n	nelted and a new cube is	formed. The side of the
	(A) 8 cm	(B) 6 cm	(C) 10 cm	(D) 12 cm
100.	A square of side 1 cm is the perimeter of remaini		s of a rectangle of dimens	sions 6 cm \times 5 cm. Find
	(A) 22 cm	(B) 44 cm	(C) 45 cm	(D) 30 cm
101.		number of sides is calle	ed (C) circle	(D) None of these
	(A) nonagon	(B) octagon	. ,	, ,
102.	If each edge of a cuboid cuboid.	of surface area S is dou	bled, then find the surfa	ice area of the new
	(A) 5S	(B) 6S	(C) 4S	(D) 3S

MATHEMATICS - (PART - B)

This part contains 6 Numerical Based Questions number 103 to 108. Each question has Single Digit Answer 0 to 9.

- 103. The sum of the interior angles of a polygon is three times the sum of its exterior angles. Find the number of sides of this polygon
- 104. The radius of a wheel of a bike is 39.9 cm. If the wheel makes 6000 rotation in one, minute If bike takes 8k minutes to cover a distance of 601.92 km, find the value of k.
- 105. A cuboid has total surface area 40 m² and its lateral surface area is 26 m². Find the area of its base in m²
- 106. If a rectangle of side lengths 5 cm and 15 cm is to the divided into three squares of equal areas, then find the side length of square in cm
- 107. The curved surface area of a right circular cylinder of height 7 cm is 176 cm². Find the diameter of the base of the cylinder in cm.
- 108. Simplify: $14 \left[12 \left\{9 \left(7 \overline{6 2}\right)\right\}\right]$



FITTLE Big Bang Edge Test - 2022 for students presently in Class 6 (going to 7) (Paper 1) SAMPLE PAPER ANSWER KEY

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