

# FIITJEE Big Bang Edge Test - 2022

for students presently in **Class 7 (going to 8) (Paper 1)**

Time: 3 Hours (9:00 am – 12:00 pm)

**CODE: 78-1**

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 no.	Marking Scheme for each question	
			Correct answer	Wrong answer
SECTION – I	APTITUDE TEST	1 to 12	+3	0
		13 to 18	+4	0
SECTION – II	PHYSICS (PART-A)	19 to 22	+2	0
	CHEMISTRY (PART-B)	23 to 26	+2	0
	MATHEMATICS (PART-C)	27 to 31	+2	0
	BIOLOGY (PART-D)	32 to 36	+2	0
SECTION – III	PHYSICS (PART-A)	37 to 48	+1.5	0
	CHEMISTRY (PART-B)	49 to 60	+1.5	0
	MATHEMATICS (PART-C)	61 to 72	+1.5	0
	BIOLOGY (PART-D)	73 to 84	+1.5	0
SECTION – IV	PHYSICS (PART-A)	85 to 88	+3	0
	CHEMISTRY (PART-B)	89 to 92	+3	0
	BIOLOGY (PART-C)	93 to 96	+3	0
SECTION – V	MATHEMATICS (PART-A)	97 to 102	+3	0
	MATHEMATICS (PART-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 No. :** \_\_\_\_\_  
**Registration Number :** \_\_\_\_\_  
**Name of the Candidate :** \_\_\_\_\_  
**Test Centre :** \_\_\_\_\_

For questions **103 to 108**

Numerical based questions single digit answer 0 to 9

**Example 1:**

If answer is 6.

Correct method:

① ② ③ ④ ⑤ ● ⑦ ⑧ ⑨

**Example 2:**

If answer is 2.

Correct method:

① ● ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

SAMPLE PAPER

# Recommended Time: 35 Minutes for Section – I

## Section – I

### APTITUDE TEST

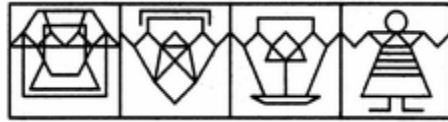
This section contains **18 Multiple Choice Questions** number **1 to 18**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

1. Find out the alternative figure which contains figure (X) as its part.



(X)

(A) 1



(1)

(B) 2

(2)

(3)

(4)

(C) 3

(D) 4

2. Ravi travelled 8 km straight towards South. He turned left and travelled 6 km straight. How far is he from the starting point?

(A) 8 km

(B) 10 km

(C) 12 km

(D) 18 km

3. Find the missing term.

2, 3, 5, 7, 11, \_\_\_\_\_, 17

(A) 12

(B) 13

(C) 14

(D) 15

4. Find the missing term.

6, 11, 21, 36, 56, \_\_\_\_\_

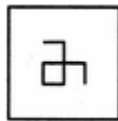
(A) 42

(B) 51

(C) 81

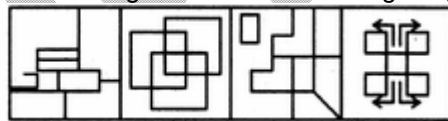
(D) 91

5. Find out the alternative figure which contains figure (X) as its part.



(X)

(A) 1



(1)

(B) 2

(2)

(3)

(4)

(C) 3

(D) 4

Space for Rough Work

6. Find the missing term.

9, 27, 81, \_\_\_\_\_

- (A) 324 (B) 243 (C) 512 (D) 676

7. Find the missing term.

5, 9, 17, 29, 45, \_\_\_\_\_

- (A) 60 (B) 65 (C) 68 (D) 70

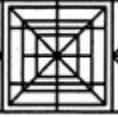
8. Find out the alternative figure which contains figure (X) as its part.



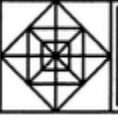
(X)



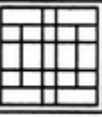
(1)



(2)



(3)



(4)

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

9. Find the missing term.

2, 9, 28, 65, 126, .....

- (A) 345 (B) 217 (C) 515 (D) 730

10. Find the missing term.

\_\_\_ aba \_\_\_ ba \_\_\_ ab

- (A) abbba (B) abbab (C) baabb (D) bbaba

11. Find the missing term.

EH, JK, ON, \_\_\_\_\_

- (A) UQ (B) TR (C) TQ (D) UR

**Directions (Q12 & 13):**

If p means 'x'; y means '-'; x means '+'; z means ÷ then

12. The value of  $6P20Z5X8Y5$

- (A) 23 (B) 25 (C) 27 (D) 30

13. The value of  $8X6Z3Y7P3$

- (A) -21 (B) -11 (C) -10 (D) 31

*Space for Rough Work*

14. How many pairs of letters are there in the word 'CLANGOUR' which have as many letters between them in the word as in the alphabet ?  
 (A) Two (B) Three (C) Four (D) Five
15. The value of  $200z5 \times 10y5p10$   
 (A) 0 (B) 1 (C) 10 (D) 100
16. If  $5 \times 3 = 16$ ,  $9 \times 8 = 73$  and  $6 \times 7 = 43$ , then  $7 \times 8 = ?$   
 (A) 72 (B) 58 (C) 85 (D) 57

**Directions (Questions 17 to 18):** In the following questions, a group of letters is given which are numbered 1, 2, 3, 4, 5 and 6. Below are given four alternatives containing combinations of these numbers. Select that combination of numbers so that letters arranged accordingly, form a meaningful word.

17. I N E T O C  
 1 2 3 4 5 6  
 (A) 2, 5, 4, 1, 6, 3 (B) 3, 6, 4, 1, 2, 5 (C) 4, 3, 6, 5, 2, 1 (D) 6, 5, 2, 3, 4, 1
18. N A E H L D  
 1 2 3 4 5 6  
 (A) 2, 6, 4, 3, 5, 1 (B) 4, 2, 1, 6, 5, 3 (C) 4, 3, 6, 5, 2, 1 (D) 2, 1, 6, 4, 3, 5

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*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 is a good conductor of heat?  
(A) Mercury (B) paper  
(C) wood (D) All of these
20. What is the range of the temperature reading of a clinical thermometer?  
(A)  $35^{\circ}\text{C} - 42^{\circ}\text{C}$  (B)  $-20^{\circ}\text{C} - 100^{\circ}\text{C}$   
(C)  $0^{\circ}\text{C} - 100^{\circ}\text{C}$  (D)  $36^{\circ}\text{C} - 42^{\circ}\text{C}$
21. The heat is transferred from hotter body to surrounding  
(A) conduction (B) induction  
(C) convection (D) radiation
22. Water transfer the heat from one point to another point by  
(A) radiation (B) convection  
(C) conduction (D) all of these

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*Space for Rough Work*

## 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.

23. Silk is derived from  
(A) cocoon (B) pupa  
(C) Egg (D) moth
24. "Litmus" Natural dye is an extract of which of the following?  
(A) China rose (B) Lichen  
(C) Beet Root (D) Blue berries Jamun
25. Which of the following is a Chemical Change?  
(A) Twinkling of stars (B) Cutting of fruits  
(C) Cooking of vegetables (D) Boiling of water
26. What happened when wool fibre is burn  
(A) It produces a sizzling noise (B) It smells like burning hair  
(C) Curls away from flamed (D) All of these

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*Space for Rough Work*

**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. If one-fifth of two-third of one-half of number is 30, then find the number.  
(A) 450 (B) 900 (C) 950 (D) 400
28.  $\frac{(63 + 36)^2 + (63 - 36)^2}{63^2 + 36^2} = ?$   
(A) 1 (B) 2 (C) 3 (D) 4
29. The median of the following data is equal to:  
-2, 3, 4, -5, 9, 8, 11  
(A) 5 (B) 4 (C) 9 (D) none of these
30. The sum of three consecutive odd numbers is 51. Find the greatest of them  
(A) 19 (B) 15 (C) 17 (D) 13
31. What is the probability of getting a prime number when a dice is thrown?  
(A)  $\frac{2}{3}$  (B)  $\frac{1}{3}$  (C)  $\frac{1}{2}$  (D)  $\frac{1}{6}$

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Space for Rough Work



**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. Human beings can be categorised as  
(A) heterotrophs (B) autotrophs  
(C) parasites (D) saprotrophs
33. Which part of the plant is called its food factory?  
(A) Fruits (B) Seeds  
(C) Leaves (D) Flowers
34. The end products of photosynthesis are  
(A) carbohydrates, oxygen (B) carbohydrates, hydrogen  
(C) carbohydrates, water vapours (D) carbohydrates, oxygen and water vapours
35. Read the following environmental conditions of tropical rain forests:  
(i) Hot and humid climate  
(ii) Unequal lengths of day and night  
(iii) Abundant rain fall  
(iv) Abundant light and moisture  
Identify the conditions from the above list that are responsible for the presence of large number of plants and animals in tropical rain forests.  
(A) (i) and (ii) (B) (i) and (iii)  
(C) (i), (iii) and (iv) (D) (ii) and (iv)
36. Which one of the following is a pair of symbiotic organisms?  
(A) Lichens (B) *Rhizobium* and a legume  
(C) None of these (D) Both (A) and (B)

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**Space for Rough Work**

**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. 10 calorie is equal to  
(A) 42 joule (B) 84 joule  
(C) 21.84 joule (D) 80.0 joule
38. Which of the following is a good conductor of heat?  
(A) Iron (B) Silver  
(C) Gold (D) All of these
39. Which of the following is a poor conductor of heat?  
(A) Paper (B) Wood  
(C) Gold (D) both (A) and (B)
40. Range of the temperature reading of a clinical thermometer is?  
(A) 308 K – 315 K (B) 309 K – 315 K  
(C) 308 K – 316 K (D) 37 K – 42 K
41. Heat from sun reaches to children playing in a garden by  
(A) Conduction (B) Convection  
(C) Radiation (D) None of these
42. The boiling point of water on kelvin scale + a = 546 K. Value of a is  
(A) -373 K (B) -227 K  
(C) -127 K (D) 173 K

*Space for Rough Work*

43. Temperature  $0^{\circ}\text{C}$  is equivalent to  
(A)  $-40^{\circ}\text{F}$  (B)  $32^{\circ}\text{F}$   
(C)  $-32^{\circ}\text{F}$  (D)  $60.6^{\circ}\text{F}$
44.  $90^{\circ}\text{C}$  is equivalent to  
(A)  $70.6^{\circ}\text{F}$  (B)  $80.6^{\circ}\text{F}$   
(C)  $90.6^{\circ}\text{F}$  (D)  $194^{\circ}\text{F}$
45. Cyclone warning is issued by Government  
(A) 1 day in advance (B) 12 hrs in advance  
(C) 20 hrs in advance (D) none of these
46. Speed of light in vacuum is  
(A)  $3 \times 10^5 \text{ m/s}$  (B)  $3 \times 10^8 \text{ cm/s}$   
(C)  $3 \times 10^7 \text{ cm/s}$  (D)  $3 \times 10^{11} \text{ mm/s}$
47. Which of the following statement is false:  
(A) Heat flows from high temperature body to low temperature body.  
(B) Heat is a form of energy.  
(C) Temperature flow from a hot body to cold body.  
(D) both (A) and (C)
48.  $32^{\circ}\text{C}$  is equivalent to  
(A)  $70.6^{\circ}\text{F}$  (B)  $80.6^{\circ}\text{F}$   
(C)  $89.6^{\circ}\text{F}$  (D)  $60.6^{\circ}\text{F}$
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Space for Rough Work

## 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. Which of the following is a physical change  
(A) Rusting of iron  
(C) Melting of wax  
(B) Burning of candle  
(D) Combustion of magnesium ribbon
50. Water breaks into its constituents  
(A) by magnetic effect  
(C) by heating  
(B) by light  
(D) by passing electric current.
51. Bases are  
(A) Sour in taste  
(C) Salty in taste  
(B) Sweet in taste  
(D) Bitter in taste
52. \_\_\_\_\_ is a reaction between acid and base to form salt and water  
(A) Electrolysis  
(C) Decomposition  
(B) Neutralisation  
(D) Corrosion
53. Which of the following is an acid-base Indicator?  
(A) Vinegar  
(C) Turmeric  
(B) Lime water  
(D) Baking soda
54. Crystallisation is a process to obtain  
(A) Pure solids only  
(C) Pure liquid only  
(B) Pure solids & liquids  
(D) Solids or powder
55. Which of the following set of substances contain acids?  
(A) Grapes, lime water  
(C) Curd, Vinegar  
(B) Curd, milk of magnesia  
(D) Vinegar, Soap

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**Space for Rough Work**

56. The gas which escapes out from many aerated soft drinks is  
(A)  $\text{CO}_2$  (B)  $\text{SO}_2$   
(C) CO (D)  $\text{SO}_3$
57. When  $\text{CO}_2$  is passed through lime water, it turns lime water.  
(A) Milky (B) Blue  
(C) Silver (D) Golden
58. Reeling of silk is  
(A) a process of making silk reels  
(B) the spinning of silk fibres  
(C) the weaving of silk cloth  
(D) the process of taking silk threads from the cocoon
59. Silkworms secrete fibre made of  
(A) Fat (B) Protein  
(C) Cellulose (D) Nylon
60. Formation of gas bubbles is  
(A) A physical change (B) A physical property  
(C) A chemical change (D) A chemical property

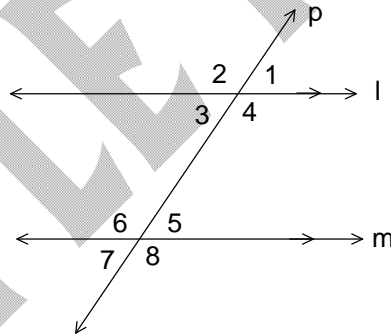
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*Space for Rough Work*

## 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.

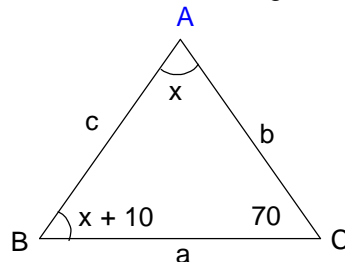
61. The denominator of a fraction is 2 more than its numerator. If 2 is added to both numerator and denominator, then we get  $\frac{3}{5}$ . The required fraction is  
 (A)  $\frac{1}{3}$  (B)  $\frac{3}{5}$  (C)  $\frac{7}{9}$  (D)  $\frac{9}{11}$
62. One seventh of a number is same as one eighth of that number plus 3. Find the number.  
 (A) 165 (B) 168 (C) 158 (D) 169
63. The value of x for which  $\sqrt{3x-2} = 5$   
 (A)  $\frac{\sqrt{3}}{2}$  (B) 5 (C) 9 (D)  $\frac{\sqrt{2}}{3}$
64. The simplification of  $3.\overline{36} - 2.\overline{05} + 1.\overline{33}$  equals:  
 (A) 2.60 (B) 2.64 (C)  $2.\overline{61}$  (D)  $2.\overline{64}$
65. Which of the following is incorrect for the given figure.



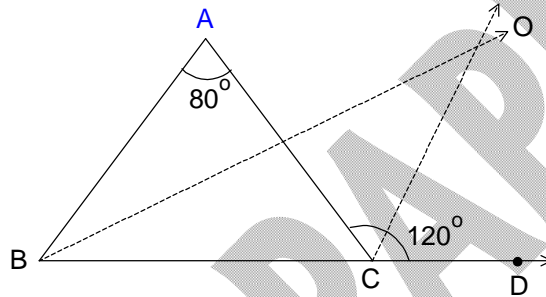
- (A)  $\angle 1 + \angle 2 = 180^\circ$  (B)  $\angle 2 + \angle 3 = \angle 1 + \angle 4 = \angle 6 + \angle 7$   
 (C)  $\angle 3 + \angle 6 = 180^\circ$  (D)  $\angle 1 = \angle 8$

**Space for Rough Work**

66. In the given figure, the arrangement of sides in ascending order is



- (A)  $c > b > a$                       (B)  $b > c > a$                       (C)  $a > c > b$                       (D) none of these
67. In the given figure CO and BO are the bisectors of exterior angles and interior angles  $\angle ABC$ . The measure of angle BOC is



- (A)  $20^\circ$                       (B)  $30^\circ$                       (C)  $50^\circ$                       (D) none of these
68. The temperature at 12 noon was  $10^\circ\text{C}$  above zero. If it decreases at the rate of  $2^\circ\text{C}$  per hour until midnight at what time would the temperature be  $8^\circ\text{C}$  below zero?  
 (A) 9 pm                      (B) 10 pm                      (C) 11 pm                      (D) none of these
69. A rectangular sheet of paper is  $12\frac{1}{2}$  cm long and  $10\frac{2}{3}$  cm wide. Its area in square m is  
 (A)  $\frac{1}{75}\text{m}^2$                       (B)  $\frac{1}{90}\text{m}^2$                       (C)  $\frac{1}{105}\text{m}^2$                       (D) none of these
70. If  $x_1, x_2, x_3, x_4, \dots, x_n$  are the  $n$  different observations of data and  $N$ , a positive real number is subtracted from each observations, the new mean will differ by  
 (A)  $\frac{N}{2}$                       (B)  $N$                       (C)  $N - 2$                       (D) none of these
71. If  $\alpha, \beta$  are the possible solutions of the equation  $|2x - 5| = 10$  then  $\alpha + \beta =$   
 (A) 5                      (B) 4                      (C) 25                      (D) none of these
72. If a 4 digit number A381 is divisible by 11, find the value of smallest natural number A.  
 (A) 5                      (B) 6                      (C) 7                      (D) 9

**Space for Rough Work**

## 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. Which of the following is an insectivorous plant?  
(A) Pitcher plant (B) Indian telegraph plant  
(C) 4 'O' clock plant (D) Cuscuta
74. Bile is produced in  
(A) Gall bladder (B) Blood  
(C) Liver (D) Spleen
75. Cud is the name given to the food of ruminants which is  
(A) swallowed and undigested. (B) swallowed and partially digested.  
(C) properly chewed and partially digested. (D) properly chewed and completely digested.
76. Which among the following is generally not predicted in a daily weather report?  
(A) Temperature (B) Pressure  
(C) Humidity (D) Rainfall
77. The false feet of Amoeba are used for:  
(A) movement only (B) capture of food only  
(C) capture of food and movement (D) exchange of gases only
78. Read the following statements with reference to the villi of small intestine.  
(i) They have very thin walls.  
(ii) They have a network of thin and small blood vessels close to the surface.  
(iii) They have small pores through which food can easily pass.  
(iv) They are finger-like projections.  
Identify those statements which enable the villi to absorb digested food.  
(A) (i), (ii) and (iv) (B) (ii), (iii) and (iv)  
(C) (iii) and (iv) (D) (i) and (iv)

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**Space for Rough Work**



79. The main function of the lacteals of intestine is the absorption of  
 (A) amino acids (B) glucose and vitamins  
 (C) lactic acid (D) fatty acids and glycerol
80. Gastric digestion takes place efficiently in  
 (A) acidic medium (B) alkaline medium  
 (C) neutral medium (D) highly alkaline medium
81. Which is not digested by human?  
 (A) Protein (B) Fats  
 (C) Glucose (D) Cellulose
82. How many premolars teeth found in mouth?  
 (A) 2 (B) 4  
 (C) 6 (D) 8
83. Given below from (i) to (iv) are some food items.  
 (i) Boiled and mashed potato  
 (ii) Glucose solution  
 (iii) A slice of bread  
 (iv) Mustard oil  
 Which of the above will give blue-black colour when tested with iodine?  
 (A) (i) and (ii) (B) (i) and (iii)  
 (C) (ii) and (iii) (D) (iii) and (iv)
84. Read carefully the terms given below. Which of the following set is the correct combination of organs that do not carry any digestive functions?  
 (A) Oesophagus, Large intestine, Rectum (B) Buccal Cavity, Oesophagus, Rectum  
 (C) Buccal Cavity, Oesophagus, Large intestine (D) Small intestine, Large Intestine, Rectum

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**Space for Rough Work**

**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. Given below are two columns I and II.

Column I		Column II	
(i)	Good Conductor of heat	(p)	Day time
(ii)	Convection	(q)	Aluminium
(iii)	Radiation	(r)	liquids
(iv)	Sea breeze	(s)	Transfer of heat from sun to different planets

- (A) (i)-r, (ii)-p, (iii)-s, (iv)-q  
 (B) (i)-q, (ii)-r, (iii)-s, (iv)-p  
 (C) (i)-r, (ii)-q, (iii)-s, (iv)-p  
 (D) (i)-q, (ii)-s, (iii)-p, (iv)-r
86. Name the device which is used to measure wind speed is.  
 (A) Ammeter  
 (B) Barometer  
 (C) Manometer  
 (D) Anemometer
87. Wind currents are generated due to  
 (A) even heating on the earth  
 (B) unequal heating on the earth  
 (C) flood on the earth  
 (D) none of these
88. A destructive tornado can travel at a speed of about  
 (A) 30 km/h  
 (B) 100 km/h  
 (C) 350 km/h  
 (D) 10 km/h

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*Space for Rough Work*

## 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. What is the formula of rust?  
(A)  $\text{Fe}_2\text{O}_3$  (B)  $\text{FeO}$   
(C)  $\text{Fe}_3\text{O}_4$  (D) None of these
90. The formation of gas bubbles in a liquid during a reaction is called  
(A) Fuzzing (B) Bubbling  
(C) Deliquidizing (D) Efferevesence
91. What is the scientific name of mulberry tree?  
(A) *Magnifera indica* (B) *Morus alba*  
(C) *Desmodium girenca* (D) None of these
92. Phenolphthalein gives colour in acid medium  
(A) Pink (B) Colourless  
(C) Green (D) Red

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*Space for Rough Work*

## 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. The swallowed food moves downwards in the alimentary canal because of  
(A) force provided by the muscular tongue (B) the flow of water taken with the food  
(C) gravitational pull (D) the contraction of muscles in the wall of food
94. Given below are some adaptive features of animals:  
(i) Layer of fat under the skin  
(ii) Long, curved and sharp claws  
(iii) Slippery body  
(iv) Thick white fur  
Which of them are the adaptive features of a polar bear?  
(A) (i) only  
(B) (i) and (ii) only  
(C) (i), (ii) and (iii) only  
(D) (i), (ii) and (iv) only
95. The acid present in the stomach:  
(A) kills the harmful bacterial that may enter along with the food.  
(B) protects the stomach lining from harmful substances.  
(C) digests starch into simpler sugars  
(D) makes the medium alkaline
96. The enzymes present in the saliva convert:  
(A) fats into fatty acids and glycerol (B) starch into simple sugars  
(C) proteins into amino acids (D) complex sugars into simple sugars

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## 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.  $\left(\frac{0.05}{0.25} + \frac{0.25}{0.05}\right)^3 = ?$

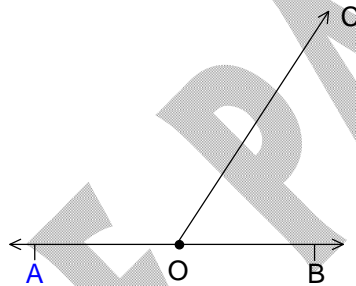
(A) 139.4

(B) 140

(C) 140.6

(D) 143.9

98. Ray  $\overrightarrow{OC}$  stands on a line  $\overleftrightarrow{AB}$  such that adjacent-angles are one third and half of a constant 'K'. Find the value of K.

(A)  $256^\circ$ (B)  $220^\circ$ (C)  $216^\circ$ 

(D) none of these

99. (Mode + Median) of the data: 13, 16, 12, 14, 19, 12, 14, 13, 14 is

(A) 28

(B) 30

(C) 36

(D) none of these

100. A teacher has 45 chocolates. After giving two chocolates to each student, teacher is left with 7 chocolates. How many students are there in the class?

(A) 20

(B) 19

(C) 25

(D) none of these

101. For the given pair of equations find the value of  $-x^2 + y^2$ ,

$$3x + 5y = 21, 2x + 3y = 13$$

(A) 11

(B) 9

(C) 7

(D) 5

102. Solve for x:  $\frac{x^2 - 8}{9} + \frac{x(5 - x)}{10} = \frac{x(x - 1)}{90} + \frac{x}{2}$ .

(A) 90

(B) 80

(C) 100

(D) 95

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## 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 supplement of an angle is one – third of itself, then angle is x. Find the sum of digits of x
104. An angle x is equal to its supplement, find  $\frac{x}{18}$
105. If  $(a + b)^2 + (a - b)^2 = k(a^2 + b^2)$ , then find k
106. If  $x^2 + y^2 + 2x + 1 = 0$ , then find the value of  $x^4 + y^5$ .
107. The value of a quantity decreases by 20% and again increases to 20%. So by what % does the value of the quantity decrease ?
108.  $\left(\sqrt{3} + \frac{1}{\sqrt{3}}\right)^2 - \frac{1}{3}$  equals x. Find x

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*Space for Rough Work*

# FIITJEE Big Bang Edge Test - 2022

for students presently in **Class 7 (going to 8) (Paper 1)**

## SAMPLE PAPER ANSWER KEY

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