

# FIITJEE SAMPLE PAPER

(FIITJEE Talent Reward Exam - 2021)

for students presently in

## Class 8 (Paper 1)



Time: 3 Hours (9:30 am – 12:30 pm)

Code 8000

Maximum Marks: 266

### 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, 45 Minutes on Section-II, 30 Minutes on Section-III and 45 Minutes on Section-IV.
2. This Question paper consists of 4 sections. Marking scheme is given in table below:

Section	Subject	Question no.	Marking Scheme for each question	
			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 72	+1	0
	CHEMISTRY (PART-B)	73 to 78	+1	0
	MATHEMATICS (PART-C)	79 to 84	+1	0
	BIOLOGY (PART-D)	85 to 90	+1	0
SECTION – IV	PHYSICS (PART-A)	91 to 94	+4	-1
	CHEMISTRY (PART-B)	95 to 98	+4	-1
	MATHEMATICS (PART-C)	99 to 102	+4	-1
	BIOLOGY (PART-D)	103 to 110	+4	-1

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 110 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

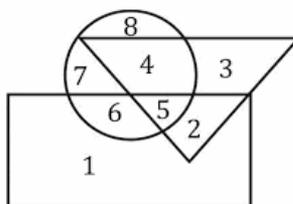
*This section contains 30 Multiple Choice Questions number 1 to 30. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.*

**Directions (Q.1 – Q.2):** Series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

1. 79, 159, 199, 219, ?  
(A) 229 (B) 234  
(C) 239 (D) 222
2. JAZ, LEX, NIV, PMT, ?  
(A) QUR (B) RQR  
(C) SUR (D) RUS
3. In the following question, select the related word from the given alternatives  
Fan : Blades :: ? : ?  
(A) Bonnet : Car (B) Room : House  
(C) Arc : Circle (D) Book : Chapter
4. If "+" means "minus", "x" means "divided by", "÷" means "plus" and "-" means "multiplied by", then  
 $300 \times 10 - 5 + 36 \div 57 = ?$   
(A) 150 (B) 171  
(C) 230 (D) 234
5. Choose the odd one out.  
(A) HSRI (B) MVUN  
(C) OLKP (D) PJQX
6. If "A" means "subtraction", "B" means "division", "C" means "addition" and "D" means "multiplication", then  
 $294 B 6 A 30 C 31 D 4 = ?$   
(A) 16 (B) 156  
(C) 143 (D) 163

*Space for Rough Work*

**Directions (Q.7 – Q.9):** In the following questions, answers are to be based on the diagrams given below, where the triangle represents doctors, the circle represents players and the rectangle represents artists.



7. Which numbered space in the diagram represents doctors who are also players and artists?  
 (A) 2 (B) 3  
 (C) 4 (D) 5
8. Which number represents artists who are also players only?  
 (A) 4 (B) 6  
 (C) 7 (D) 8
9. Which number represents artists who are neither players nor doctors?  
 (A) 1 (B) 2  
 (C) 3 (D) 4
10. From the given answer figures (A), (B), (C) & (D) select the one in which the question figure (X) is hidden/embedded.

**Question Figure**



(X)

**Answer Figures**



(A)



(B)



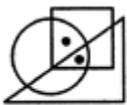
(C)



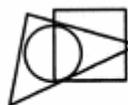
(D)

11. If 'A + B' means 'A is father of B', 'A - B' means 'A is mother of B', 'A \* B' means 'A is brother of B' and 'A % B' means 'A is sister of B', then how is Q related to S in 'P + Q \* R - S'?
- (A) Husband (B) Uncle  
 (C) Brother (D) Father
12. Anil introduces Akash as the son of the only brother of his father's wife. How is Akash related to Anil?
- (A) Cousin (B) Son  
 (C) Uncle (D) Son-in-law

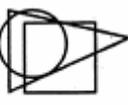
*Space for Rough Work*

13. Five boys are sitting facing towards South. Raj is between Rohit and Vishal. Vishal is to the immediate right of Manoj and Manoj is to the immediate right of Shekhar. Who is sitting in the middle?  
 (A) Vishal (B) Manoj  
 (C) Raj (D) Shekhar
14. A man walks 20 m towards north, then he turns right and walks 3 m, then turns left and walks 4 m and from there he walks 4 m towards east. How far and in which direction is he from his initial position?  
 (A) 25 m east (B) 25 m north-east  
 (C) 20 m north (D) 24 m north
15. Select the figure which satisfies the same conditions of placement of the dots as in Figure-X.
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(X)



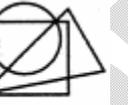
(A)



(B)



(C)



(D)
16. Arrange the given words in the sequence in which they occur in the dictionary.  
 1. Soul  
 2. Strain  
 3. Syrup  
 4. Sand  
 5. Strained  
 (A) 41253 (B) 42153  
 (C) 54312 (D) 45312
17. In the following question, select the word which cannot be formed using the letters of the given word.  
 Precipitation  
 (A) Reaction (B) Patient  
 (C) Reacts (D) Petition
18. Blueberries cost more than strawberries.  
 Blueberries cost less than raspberries.  
 Raspberries cost more than strawberries and blueberries.  
 If the first two statements are true, the third statement is.  
 (A) True (B) False  
 (C) Uncertain (D) Cannot be determined.

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**Space for Rough Work**

19. In a queue, A is eighteenth from the front while B is sixteenth from the back. If C is twenty-fifth from the front and is exactly in the middle of A and B, then how many persons are there in the queue?  
 (A) 45 (B) 46  
 (C) 47 (D) 48
20. In a row of girls, there are 16 girls between Priya and Natasha. Priya is thirty-second from the left end of the row. If Priya is nearer than Natasha to the right end of the row, then how far away is Natasha from the left end of the row?  
 (A) Data inadequate (B) 14th  
 (C) 15<sup>th</sup> (D) 16th

**Directions (Q.21 – Q.22):** In each of the questions below is given four statements followed by three conclusions numbered I, II and III. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

21. **Statements:**  
 Some pearl is jam.  
 All jam is block.  
 No block is iron.  
 All iron is sword.  
**Conclusions:**  
 I. Some pearl is block.  
 II. No jam is iron.  
 III. No block is sword.  
 (A) Only I and II follows (B) Only I and III follows  
 (C) Only II and III follows (D) All I, II and III follows
22. **Statements:**  
 Some holy is ice.  
 Some ice is snow.  
 Some snow is cream.  
 Some cream is honey.  
**Conclusions:**  
 I. Some holy is honey  
 II. Some ice is cream  
 III. Some snow is honey.  
 (A) None follow (B) Only I follow  
 (C) Only II follow (D) Only III follow

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*Space for Rough Work*

23. In a certain code language, "BALL" is written as "27" and "CANE" is written as "23". How is "YELL" written in that code language?  
(A) 50 (B) 39  
(C) 54 (D) 61
24. What was the day of the week on 28<sup>th</sup> May, 2006?  
(A) Thursday (B) Friday  
(C) Saturday (D) Sunday
25. Today is Saturday. After 60 days, it will be:  
(A) Wednesday (B) Thursday  
(C) Saturday (D) Sunday

**Directions (Q.26 – Q.30):** Study the following information carefully and answer the questions given below.

Ten persons are sitting in two parallel rows containing five persons each in such a way that there is an equal distance between adjacent persons. In the first row, A, B, C, D and E are seated and all of them are facing south. In the 2nd row, P, Q, R, S and T are seated and all of them are facing north. Therefore, in the given seating arrangement, each member seated in a row faces another member of the other row. S sits third to the left of P. A faces an immediate neighbour of S. C sits second to the right of A. Only one person sits between B and D. Q and T are immediate neighbours. T does not face A and B.

26. How many persons are seated between B and E?  
(A) None (B) One  
(C) Two (D) Three
27. Who amongst the following faces D?  
(A) P (B) Q  
(C) R (D) T
28. Which of the following is true regarding Q?  
(A) P and R are immediate neighbours of Q.  
(B) Q sits at one of the extreme ends of the line.  
(C) E is an immediate neighbour of the person who is facing Q.  
(D) S sits on the immediate left of Q.
29. Who amongst the following are sitting exactly in the middle of the rows?  
(A) A and T (B) D and S  
(C) D and P (D) A and Q
30. Three of the following four are alike in a certain way and thus form a group. Which is the one that does not belong to that group?  
(A) C (B) D  
(C) R (D) P

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*Space for Rough Work*

## Recommended Time: 45 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. The physical quantity expressed in the terms of force acting per unit area is called \_\_\_\_\_ .  
 (A) thrust (B) pressure  
 (C) torque (D) none of these
32. Unit of resistivity is  
 (A) Ohm (B) Ampere  
 (C) Volt (D) Ohm × meter
33. The instrument used to conduct electrolysis is called \_\_\_\_\_ .  
 (A) Ammeter (B) Voltmeter  
 (C) Voltmeter (D) Electroscopes
34. What is the correct relationship between S.I. unit and gravitational unit of force?  
 (A)  $1 \text{ N} = 9.8 \text{ kgf}$  (B)  $9.8 \text{ N} = 1 \text{ kgf}$   
 (C)  $10^5 \text{ kgf} = 1 \text{ N}$  (D)  $10^5 \text{ N} = 1 \text{ kgf}$
35. Which of the following is/are ways to reduce friction?  
 (A) By using anti-friction metals (B) By using lubricants  
 (C) By making stream lined bodies (D) all of these
36. Resistivity of the material is independent of  
 (A) nature of material (B) temperature of material  
 (C) dimensions of material (D) none of the above
37. Corrugation in the tyres of vehicle \_\_\_\_\_ the friction.  
 (A) increases (B) reduces  
 (C) makes no effect on (D) none of these
38. Metals are good conductor of heat & electricity than insulator because  
 (A) their atoms are relatively apart (B) they contain free electrons  
 (C) their atom collide frequently (D) they have reflecting surface.
39. The set of forces acting on a body which does not produce any acceleration in body is called \_\_\_\_\_ .  
 (A) Resultant force (B) Balanced force  
 (C) Unbalanced force (D) None of these

**Space for Rough Work**

## 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 metal which is stored in kerosene:  
(A) Phosphorus (B) Magnesium  
(C) Sodium (D) Zinc
41. Black soot which is deposited on kerosene lamps after burning is called  
(A) coke (B) lampblack  
(C) gas carbon (D) charcoal
42. The monomeric unit of the polymer Teflon is:  
(A) Ethylene (B) Vinyl chloride  
(C) Tetrafluoro ethylene (D) Isoprene
43. The monomer units of PAN is  
(A) Acrylonitrile (B) Styrene  
(C) Vinyl chloride (D) Tetrafluoroethene
44. Metal oxides are of nature:  
(A) Acidic (B) Basic  
(C) Neutral (D) All of these
45. The useful substances obtained from petroleum are called  
(A) petrochemicals (B) petroleum gas  
(C) petrol (D) natural gas
46. Generally, non-metals are not conductors of electricity, which of the following is a good conductor of electricity?  
(A) Fullerenes (B) Graphite  
(C) Diamond (D) Sulphur
47. Select the synthetic polymer whose filament was first obtained that could be stretched several times its original length.  
(A) nylon (B) polyester  
(C) acrylic (D) none of these
48. Coal is used in generating electricity in a  
(A) nuclear power station (B) thermal power station  
(C) hydro power station (D) geothermal power station

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*Space for Rough Work*

**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. If  $x - y = 2$ ,  $xy = 24$ , then the value of  $(x^2 + y^2)$  is:  
(A) 25 (B) 36  
(C) 63 (D) 52
50. Simplify:  $\left(\frac{1}{4}\right)^{-2} - 3(8)^{\frac{2}{3}}(4)^0 + \left(\frac{9}{16}\right)^{-\frac{1}{2}}$   
(A)  $4\frac{1}{3}$  (B)  $5\frac{1}{3}$   
(C)  $2\frac{1}{3}$  (D)  $6\frac{1}{3}$
51.  $(16^{0.16} \times 2^{0.36})$  is equal to:  
(A) 2 (B) 16  
(C) 32 (D) 64
52. Sara deposited Rs. 29400 for 6 years at simple interest. She got Rs. 4200 as interest after 6 years. The annual rate of interest was:  
(A)  $2\frac{8}{21}\%$  (B)  $2\frac{7}{20}\%$   
(C)  $3\frac{8}{21}\%$  (D)  $4\frac{8}{21}\%$
53. Simplify:  $\left[64^{\frac{2}{3}} \times 2^{-2} \div 8^0\right]^{\frac{1}{2}}$   
(A) 0 (B) 1  
(C) 2 (D)  $\frac{1}{2}$

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Space for Rough Work

54. Which of the following is true?  
(A) Rational numbers are always closed under division  
(B) Rational numbers are always closed under subtraction  
(C)  $1 \div 0 = 0$   
(D) Subtraction is commutative on rational numbers
55. The product of two rational numbers is always  
(A) rational number  
(B) an integer  
(C) a negative rational number  
(D) None of these
56. If  $\frac{a}{b} = \frac{2}{3}$  and  $\frac{b}{c} = \frac{4}{5}$ , then  $(a + b) : (b + c) = ?$   
(A) 3 : 4  
(B) 4 : 5  
(C) 5 : 9  
(D) 20 : 27
57. Diagonals of a parallelogram ABCD intersect at O. If  $\angle BOC = 90^\circ$  and  $\angle BDC = 50^\circ$ , then  $\angle OAB$  is \_\_\_\_\_  
(A)  $90^\circ$   
(B)  $50^\circ$   
(C)  $40^\circ$   
(D)  $10^\circ$

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*Space for Rough Work*

## 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. Before sowing, good quality seeds are selected. Select one property of good quality seeds from the options given below.  
 (A) Good seeds are lighter in weight  
 (B) They float on the surface of water when soaked  
 (C) Good seeds become hollow  
 (D) They are heavier and sink in water
59. Bricks are assembled to make a building. Similarly, \_\_\_\_\_ are assembled to make the body of an organism.  
 (A) Tissue  
 (B) Organ  
 (C) Cell  
 (D) Organ system
60. Polio and chicken pox are  
 (A) Bacterial diseases  
 (B) Viral diseases  
 (C) Fungal diseases  
 (D) Protozoan diseases
61. Find out the pair of disease caused by protozoans.  
 (A) Amoebiasis and Malaria  
 (B) Typhoid and Tuberculosis  
 (C) Common cold and Influenza  
 (D) Cholera and Malaria
62. Major part of nitrogen fixation is done by bacteria but sometimes a small part is fixed by \_\_\_\_\_.  
 (A) Animals  
 (B) Lightening  
 (C) Gases  
 (D) None of these
63. The egg of a hen represents a \_\_\_\_\_ cell.  
 (A) acellular  
 (B) Unicellular  
 (C) Both (A) and (B)  
 (D) Multicellular
64. The causative organism of polio is \_\_\_\_\_ and its mode of transmission is \_\_\_\_\_.  
 (A) Bacteria, Water  
 (B) Virus, Air/Water  
 (C) Protozoa, Air  
 (D) Virus, contact
65. Fertilizers become a source of \_\_\_\_\_ pollution.  
 (A) Air pollution  
 (B) Water pollution  
 (C) Noise pollution  
 (D) All of these
66. In 1778, Edward Jenner discovered the vaccine for \_\_\_\_\_.  
 (A) Small pox  
 (B) Cholera  
 (C) Hepatitis  
 (D) Tuberculosis

**Space for Rough Work**

## Recommended Time: 30 Minutes for Section – III

### Section – III

### PHYSICS – (PART – A)

This part contains 6 Multiple Choice Questions number 67 to 72. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

67. The filament of bulb is of  
(A) mercury (B) copper  
(C) tungsten (D) none of these
68. Friction is considered to be wasteful. Why?  
(A) Friction causes wear and tear  
(B) Friction leads to loss of energy in the form of heat and sound  
(C) Friction reduces the efficiency of machines  
(D) All of these
69. The weight of an object in air is 16 N. It weights 12 N when fully immersed in water. The weight of water displaced by the object is  
(A) 12 N (B) 4 N  
(C) 16 N (D) 14 N
70. Which of the following is/are unit(s) of force?  
(A) Newton (B) Kilogram force  
(C) Dyne (D) All of these
71. If a wire of resistivity  $\rho$  is stretched to double its length, then its new resistivity will  
(A) be half (B) be double  
(C) be four times (D) not change
72. Which of the following is correct relationship between Newton and dyne?  
(A) 1 N = 10000 dyne (B)  $10^5$  N = 1 dyne  
(C) 100000 dyne = 1 N (D) 1000 dyne = 1 N

*Space for Rough Work*

## CHEMISTRY – (PART – B)

This part contains 6 Multiple Choice Questions number 73 to 78. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

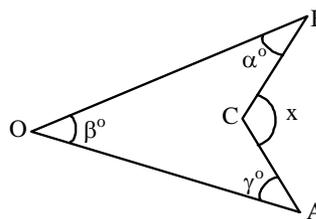
73. Polystyrene has following uses:  
(A) for insulating refrigerators & cold stores  
(B) for containers which are used as ice box  
(C) for packing expensive items such as cell phones, TV  
(D) All of these
74. The alloy bronze consists of  
(A) copper and zinc  
(B) copper and tin  
(C) copper and aluminium  
(D) tin and lead
75. Select the one that is **NOT** derived from fossil fuel.  
(A) LPG  
(B) Kerosene  
(C) Diesel  
(D) Biogas
76. Water gas is  
(A)  $\text{CO} + \text{CO}_2$   
(B)  $\text{CO} + \text{N}_2$   
(C)  $\text{CO} + \text{H}_2$   
(D)  $\text{CO} + \text{N}_2 + \text{H}_2$
77. Select the one that is a natural polymer.  
(A) nylon 6, 6  
(B) polyester  
(C) cellulose  
(D) none of these
78. The rocky material present in ore is known as  
(A) gangue  
(B) flux  
(C) slag  
(D) none of these

*Space for Rough Work*

## MATHEMATICS – (PART – C)

This part contains 6 Multiple Choice Questions number 79 to 84. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

79.  $(a^2 - b^2 - 4ac + 4c^2) =$   
 (A)  $(a + 2c + b)(a - 2c - b)$  (B)  $(a - 2c + b)(a - 2c - b)$   
 (C)  $(a - 2b + c)(a + b + 2c)$  (D)  $(a - 2b)(a + 2b + 2c)$
80. If a number 'x' is 10% less than another number 'y' and 'y' is 10% more than 125, then 'x' is equal to:  
 (A) 150 (B) 143 (C) 140.55 (D) 123.75
81. The value of  $(x^{b+c})^{b-c} (x^{c+a})^{c-a} (x^{a+b})^{a-b}$ , ( $x \neq 0$ ) is :  
 (A) 1 (B) 2  
 (C) -1 (D) 0
82. If  $\frac{2}{3}$  of A = 75% of B = 0.6 of C, then A : B : C is equal to:  
 (A) 9 : 8 : 10 (B) 8 : 9 : 10  
 (C) 3 : 4 : 5 (D) 4 : 3 : 5
83. If the angles of a quadrilateral are in the ratio 2 : 5 : 4 : 7, then its smallest angle is equal to  
 (A)  $40^\circ$  (B)  $20^\circ$   
 (C)  $80^\circ$  (D)  $100^\circ$ .
84. In the given figure,  $x = ?$   
 (A)  $\alpha + \beta - \gamma$   
 (B)  $\alpha - \beta - \gamma$   
 (C)  $\alpha + \beta + \gamma$   
 (D)  $\alpha + \gamma - \beta$




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*Space for Rough Work*

**BIOLOGY – (PART – D)**

*This part contains 6 Multiple Choice Questions number 85 to 90. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

85. When plants of the same kind are grown and cultivated at one place on a large scale, it is called a \_\_\_\_\_.
- (A) Crop (B) Soil  
(C) Food distribution (D) Sowing
86. The rainy season in India is generally from \_\_\_\_\_ to \_\_\_\_\_ and crops sown in rainy season are called \_\_\_\_\_.
- (A) March to July, Kharif (B) June to September, Kharif  
(C) March to July, Rabi (D) June to September, Rabi
87. The tilling or ploughing of soil is done by using a \_\_\_\_\_.
- (A) Wood (B) Iron  
(C) Plough (D) none of these
88. Traditional method of Irrigation called lever – system is also known as:
- (A) Dhekli (B) Moat  
(C) Rahat (D) Chain pump
89. During pasteurization, milk is heated to about \_\_\_\_\_.
- (A) 70°C for 15 to 30 seconds (B) 50°C for 15 to 30 seconds  
(C) 78°C for 45 seconds (D) none of the above
90. Plant cell has a \_\_\_\_\_ central vacuole.
- (A) Small (B) Big  
(C) No (D) Many

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**Space for Rough Work**

## Recommended Time: 45 Minutes for Section – IV

### Section – IV

### PHYSICS – (PART – A)

*This part contains 4 Multiple Choice Questions number 91 to 94. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.*

91. What is the density of an iron block which has a volume of  $12 \text{ cm}^3$  and a mass of 96 g?  
(A)  $8 \text{ kg/m}^3$  (B)  $80 \text{ kg/m}^3$   
(C)  $8000 \text{ kg/m}^3$  (D)  $800 \text{ kg/m}^3$
92. According to Newton's \_\_\_\_\_ law of motion, force  $\propto$  rate of change of momentum.  
(A) First (B) Second  
(C) Third (D) None of these
93. The acceleration produced by a force of 8N acting on an object of mass 40 kg is  
(A)  $320 \text{ m/s}^2$  (B)  $0.2 \text{ m/s}^2$   
(C)  $5 \text{ m/s}^2$  (D)  $20 \text{ m/s}^2$
94. A wooden block of weight 50 N is placed on a table. The force exerted by the surface of the table on the block will be \_\_\_\_\_.  
(A) zero (B) 25 N  
(C) 50 N (D) 100 N

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*Space for Rough Work*

## CHEMISTRY – (PART – B)

*This part contains 4 Multiple Choice Questions number 95 to 98. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.*

95. The solution used by goldsmith for cleaning tarnished jewellery is a mixture of two acids X and Y in the ratio 1 : 3, X and Y are:  
(A) Conc.  $\text{H}_2\text{SO}_4$  and Conc.  $\text{HCl}$  (B) Conc.  $\text{H}_2\text{SO}_4$  and Conc.  $\text{HNO}_3$   
(C) Conc.  $\text{HNO}_3$  and Conc.  $\text{HCl}$  (D) None of these
96. Polymers can be copolymer if  
(A) monomers are of more than one kind  
(B) monomeric units are linked together to form 3-dimensional network  
(C) Some examples are Melamine, Bakelite  
(D) All of these
97. Which of the following is a neutral oxide ?  
(A) Carbon dioxide (B) Carbon monoxide  
(C) Sulphur dioxide (D) Nitrogen dioxide
98. Compounds of carbon and hydrogen are known as  
(A) hydrogen carbides (B) hydrocarbons  
(C) carbohydrides (D) hydrogen carbines

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*Space for Rough Work*

**MATHEMATICS – (PART – C)**

This part contains 4 Multiple Choice Questions number 99 to 102. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

99. Which one of the following is the rational number lying between  $\frac{6}{7}$  and  $\frac{7}{8}$ ?
- (A)  $\frac{3}{4}$  (B)  $\frac{99}{112}$   
(C)  $\frac{95}{112}$  (D)  $\frac{97}{112}$
100.  $0.\overline{09} \times 7.\overline{3}$  is equal to
- (A)  $0.\overline{657}$  (B)  $0.\overline{6}$   
(C)  $0.\overline{73}$  (D) None of these
101. If a and b are odd integers than which is true?
- (A) a + b is even (B) a + b + 1 is even  
(C) ab is even (D) ab + 2 is even
102. If  $3x + 4y = 18$  and  $xy = 6$ , then find the value of  $9x^2 + 16y^2$ .
- (A) 180 (B) 144  
(C) 324 (D) 170

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Space for Rough Work

## BIOLOGY – (PART – D)

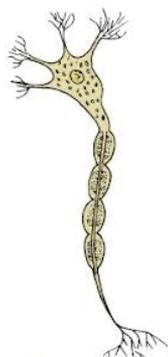
*This part contains 8 Multiple Choice Questions number 103 to 110. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.*

103. Mark the incorrect statement w.r.t. size of cells.  
(A) Smallest cell is 0.1 to 0.5 micrometre in bacteria.  
(B) The size of cells has relation with the size of the body.  
(C) The size of cell is related to its function.  
(D) Nerve cells in elephant are long and branched.
104. It is necessary to prepare soil by tilling and leveling. \_\_\_\_\_ and \_\_\_\_\_ are used for this purpose.  
(A) Plough, combine  
(B) Seed drill, leveller  
(C) Plough, leveller  
(D) Plough, Seed drill
105. Name the plant disease caused by fungi and its mode of transmission is air, seeds.  
(A) Malaria  
(B) Rust of wheat  
(C) Citrus canker  
(D) Yellow vein mosaic of Bhindi (okra)
106. Which of the following microbes are commonly called biological nitrogen fixers?  
(A) Blue-green algae  
(B) Virus  
(C) Protozoa  
(D) Fungi

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*Space for Rough Work*

107. The below figure represents which human cell:



- (A) Red blood cell  
(B) Nerve cell  
(C) Muscle cell  
(D) Fat cell
108. Which of the following is modern method of Irrigation?  
(A) Chain pump  
(B) Moat (pulley – system)  
(C) Dhekli  
(D) Sprinkler system
109. Which of the following statement is correct?  
(A) Prokaryotic cells are surrounded by a nuclear membrane.  
(B) Prokaryotic cells have a nucleus.  
(C) Eukaryotic cells do not have nucleus.  
(D) Eukaryotic cells have membrane bound organelles.
110. Spirogyra is example of:  
(A) An algae  
(B) A fungi  
(C) A protozoa  
(D) A bacteria

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**Space for Rough Work**

# FIITJEE SAMPLE PAPER – 2021

(FIITJEE Talent Reward Exam - 2021)

for students presently in

## Class 8 (Paper 1)

### ANSWERS

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