FIITJEE Big Bang Edge Test - 2022

for students presently in **Class 8 (going to 9) (Paper 1)**

Time: 3 Hours (9:00 am – 12:00 pm) **CODE: 89-1** *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 TEST		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 below.

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 **:** _____

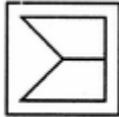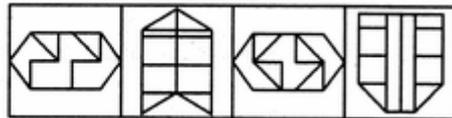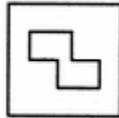# Recommended Time: 60 Minutes for Section – I

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.*

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

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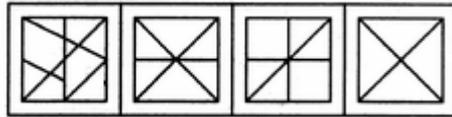
   (A) 1   (B) 2   (C) 3   (D) 4

2. 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

3. 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

4. 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

Space for Rough Work

5.   **Direction : -** One of two statements is given followed by two conclusions I and II. You have to consider the statement to be true, even if it seems to be at a variance from commonly known facts. You are to decide which of the given conclusions, can definitely be drawn from the given statements.

Statements :
All lawyers are cheats
Some men are lawyers.
Conclusion :
(I) Some men are cheats
(II) All cheats are men.
(A) If only conclusion I follows.   (B) If only conclusion II follows.
(C) If either conclusion I or II follows.   (D) If neither conclusion I nor II follows.

6.   In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.

	2				3				7	
1	41	5		4	159	6		5	?	3
	3				2				2	
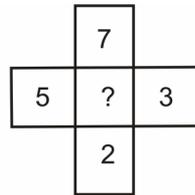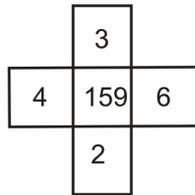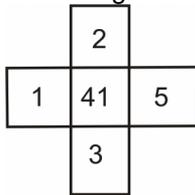
(A) 189   (B) 227   (C) 277   (D) 339

7.   Manoj is 7 ranks ahead of Anish in the class of 39 students. If Ashok's rank is 17th from the last, then what in Manoj's rank from the starts ?
(A) 16th (B) 23th (C) 24th (D) 15th

8.   What was the day on 2nd January, 1901 ?
(A) Monday   (B) Wednesday   (C) Sunday   (D) Tuesday

9.   In the following question, select the odd letter from the given alternatives.
(A) B   (B) N   (C) P   (D) W

10.   Select the correct combination of mathematical signs to replace * signs and balance the given equation :
6 * 15 * 10 * 3 * 12
(A) $\div$ + = $\times$ (B) + $\div\times$ =   (C) $\times\div$ + =   (D) + $-$ = $\div$

Space for Rough Work

11. In the recent climate conference in Paris, out of 700 men, 500 women, 800 children Present inside the building premises, 20% of the men, 40% of women and 10% of the children were Indians. Find the percentage of people who are not Indian ?
(A) 73%   (B) 79%   (C) 83%   (D) 77%

12. In the question given below, there are few statements followed by few conclusions you have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusion logically follow (s) from the given statements.

STATEMENTS :
No train is star
Some stars are man
CONCLUSION :-
I. Some men are trains
II. No men is train
III. All men are stars
(A) None follows   (B) only I follows
(C) Only either I or II follows   (D) only either I or III follows

13. What number will replace the question mark (?)
13, 13, 15, 27, 47, 67, 97, 153, ?
(A) 325   (B) 225   (C) 252   (D) 352

14. There questions are based on the word problems.
Ravi is the brother of Anuj. Sakshi is the sister of Sumit. Anju is the son of Sakshi. How is Ravi related to Sakshi ?
(A) Nephew   (B) Father   (C) Brother   (D) Son

15. In the following question, select the related letter/word/number from the given alternatives.
B J N X : C I O W : : D H P V : ?
(A) EGQU   (B) ELPV   (C) E I Q W   (D) E I O U

16. Six chidren P, Q, R, S, T and U are sitting in a straight line. T and S have two children between them. There are three children between Q and U. P is to the left of T, U is to the left of S, R is not on either extreme ends. Which one of them are on extremes ?
(A) TU   (B) QS   (C) SR   (D) PQ

17. The heights of A and B are equal. C is shorter than A, D is shorter than E, but taller than B. Who is tallest of all ?
(A) D   (B) C   (C) E   (D) B

Space for Rough Work

18. Eight friends L, M , P, Q, R, S, T and V are sitting around a circle facing the centre. L is sitting third to the right of M and L is sitting second to the left of P. R and S are Sitting together and none of them is nearest neighbor of L. Q is sitting second to the right of S. Then, who, is sitting third to the left of V ?
    (A) Q   (B) P   (C) L   (D) R

19. In a certain code PAGE is written as '3%7@' SORE is written as 8©9@. How is 'PEAS' written in that code ?
    (A) 3 @ © 8   (B) 3 @ % 9   (C) 3 @ % 8   (D) 3 % @ 8

20. Choose the odd one out from the given alternatives.
    (A) 5 : 9   (B) 17 : 19   (C) 83 : 89   (D) 37 : 41

21. In a class the number of boys is 20% more than the number of girls and total students are 33. If 5 more boys join the class, then what will be the ratio of number of boys to number of girls ?
    (A) 8 : 5   (B) 23 : 15   (C) 2 : 1   (D) 11 : 6

22. In a row of 16 girls, when kanika was shifted by two places towards the left. She became 7th form the left end. What was her earlier position from the right end ?
    (A) 7th (B) 9th (C) 8th (D) 10th

23. A series is given with one or more number/letter missing. Choose the correct alternative from the given ones that will complete the series.
    A, D, G, J, M, P, S, V, ?
    (A) Y   (B) X   (C) B   (D) C

24. From the given alternatives select the word. Which cannot be formed using the letters of the given word.
    (A) STEAL   (B) SILENT   (C) SINGLE   (D) SMILE

25. If it was Saturday on December 17, 1899, what will be the day on December 22, 1901 ?
    (A) Friday   (B) Saturday   (C) Sunday   (D) Monday

26. At 4 hours and 40 minutes, what will be the angle between both hands ?
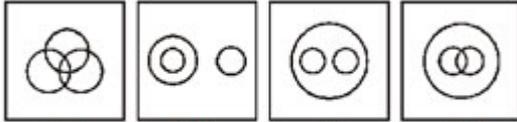   (A) 120º   (B) 130º   (C) 90   (D) 100º

Space for Rough Work

27. Select the missing number from the given responses.

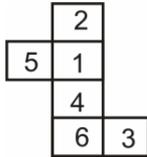| 7	56	8
9	63	7
12	?	5

(A) 17   (B) 25   (C) 60   (D) 119

28. Identify the diagram that correctly represents the relationship among woman, mother and widow

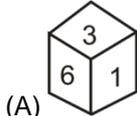(A) A   (B) B   (C) C   (D) D

29. Select from the alternatives, the box that can be formed by folding the sheet shown in figure (X)
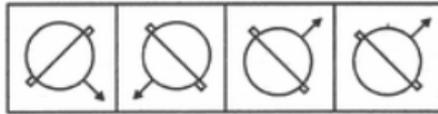

(A)   (B)   (C)   (D)

30. Choose the correct mirror image of the given figure (X) from amongst the four alternatives.

(A) 1   (B) 2   (C) 3   (D) 4
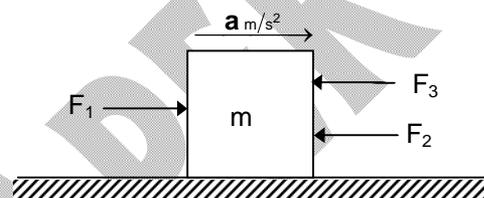
Space for Rough Work

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. From the figure, if a is the acceleration F_1, F_2, F_3 are three forces acting on a body, then
    (A) $F_1 = (F_2 + F_3)$
    (B) $F_1 > (F_2 + F_3)$
    (C) $F_1 < (F_2 + F_3)$
    (D) $F_1 + (F_2 + F_3) = ma$

32. When a body is in equilibrium, its acceleration is
    (A) unity
    (B) positive
    (C) negative
    (D) zero

33. If the weight of the floating body is equal to the buoyant force then body:
    (A) sinks
    (B) rises
    (C) floats
    (D) first floats and then sinks

34. We are not able to cut vegetables from a blunt knife because
    (A) the pressure applied by blunt knife is less than the pressure applied by sharp knife
    (B) the pressure applied by sharp knife is less than the pressure applied by blunt knife
    (C) the force applied by blunt knife is less than the pressure applied by sharp knife
    (D) the force applied by sharp knife is less than the pressure applied by blunt knife

35. Air moves from
    (A) high pressure to low pressure
    (B) low pressure to high pressure
    (C) high pressure to high pressure
    (D) low pressure to low pressure

36. Unit of coefficient of friction is:
    (A) dyne
    (B) Newton
    (C) N/m^2
    (D) None of these

Space for Rough Work

37. Two masses of 4 *kg* and 5 *kg* are connected by a string passing through a frictionless pulley and are kept on a frictionless table as shown in the figure. The acceleration of 5 *kg* mass is
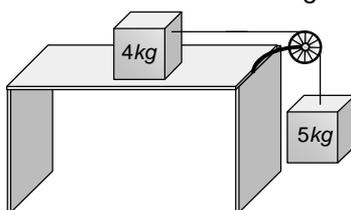
(A) $49\,m/s^2$ (B) $5.44\,m/s^2$

(C) $19.5\,m/s^2$ (D) $2.72\,m/s^2$

38. As we go on hills, the atmospheric pressure
   (A) increases   (B) remains constant
   (C) decreases   (D) none of these

39. A piece of cork is lying at the bottom of an empty bucket. Now the bucket is filled with water. What happens to the cork now?
   (A) The cork will rise to the top of water and float
   (B) The cork will float in the water but it will be completely inside the water
   (C) The cork will stay there at the bottom of the bucket
   (D) The cork will dissolve in the water

Space for Rough Work

CHEMISTRY – (PART – B)

40.   The first fully synthetic fibre is-
   (A) Nylon   (B) Rayon
        (C) Acrylic   (D) Polyster

41.   Identify the substance which is tough, porous and black. It is almost a pure form of carbon.
        (A) Curd Oil   (B) Coke
        (C) Coal tar   (D) Coal gas

42.   One of the advantages of nylon over rayon is that nylon
        (A) Is wrinkle free   (B) Has low elasticity
        (C) Is a natural fibre   (D) Is a good conductor of electricity

43.   Which of the following material is a mixture of two fibres?
        (A) Jute   (B) Polywool
        (C) Polyester   (D) Nylon

44.   Which of the following statements is false?
        (A) Carbon is the most malleable metal   (B) Copper is a good conductor of electricity
        (C) Aluminium is a good conductor of heat   (D) Bromine is the only liquid non-metal.

45.   Which of the following groups contain only synthetic fibres?
        (A) Nylon, Terylene, Wool   (B) Cotton, Polycot, Rayon
        (C) PVC, Polythene, Bakelite   (D) Acrylic, Silk, Wool

46.   In India, which association advises people on saving petrol or diesel while driving?
        (A) Petroleum Conservation Research Association (PCRA)
        (B) Coal Conservation Research Association (CCRA)
        (C) ECO-driving advice.
        (D) Petroleum conservation association (PCA)

47.   Identify the type of plastic that can best be used to make electrical switches.
        (A) PVC   (B) Polythene
        (C) PET   (D) Bakelite

48.   Which of the following fibres is used for making parachutes?
        (A) Plastic   (B) Terelyne
        (C) Nylon   (D) Steel

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. LCM of $\dfrac{4}{5} and \dfrac{5}{9}$ is

    (A) $\dfrac{4}{9}$ (B) $\dfrac{2}{3}$ (C) 20   (D) $\dfrac{1}{45}$

50. Pipes X and Y can fill a tank in 30 minutes and 60 minutes respectively. Both pipes are opened simultaneously. After how much time should X be closed so that the tank is filled in 30 minutes?
    (A) 15   (B) 16
    (C) 17   (D) 18

51. A man covers a certain distance between his house and office on scooter. Having an average speed of 30 km/hr, he is late by 10 minutes. However with a speed of 40 km/hr, he reaches his office 5 minutes earlier. Find the distance between his house and office.
    (A) 31 km   (B) 32 km
    (C) 29 km   (D) 30 km

52. Sides BA and DC of a quadrilateral ABCD are produced as shown in figure then a + b is equal to:
    (A) $x - y$
    (B) $x + y$
    (C) $x + 2y$
    (D) None of these
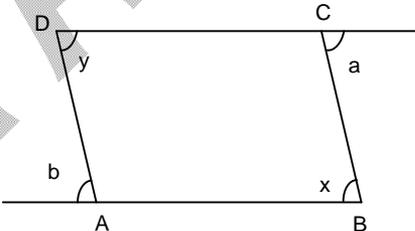
53. How many diagonals are there in a pentagon
    (A) 5   (B) 6   (C) 10   (D) 3

54. In covering a certain distance, then speeds of A and B are in the ratio of 3 : 4. A takes 30 minutes more than B to reach the destination. The time taken by A to reach the destination is :

    (A) $1\dfrac{1}{2}$ hours   (B) 2 hours

    (C) $2\dfrac{1}{2}$ hours   (D) None of these
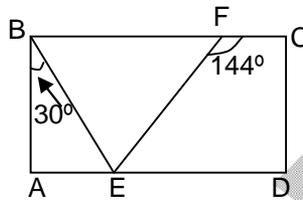
Space for Rough Work

55. The ratio of ages of A & B before 5 years was 2 : 3. If the sum of ages of A & B at present is 45 years. Find the difference of ages of A & B.
(A) 6   (B) 7
(C) 4   (D) 5

56. In the following figure, ABCD is a rhombus. If $\angle ABC = 68^\circ$, then determine $\angle ACD$.
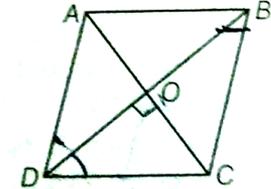
(A) 56° (B) 58° (C) 68° (D) 78°

57. In the adjoining figure of rectangle ABCD and $\angle CFE = 144^\circ$. Find the measure of $\angle BEF$.

(A) 88° (B) 80°
(C) 86° (D) 84°

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. Consider the following statements about weeding and identify the incorrect one.
    (A) Weeding is best done during tilling itself.
    (B) Weeding is the process of growing weed.
    (C) Weeding is the process of removal of weeds.
    (D) Weeding is usually done manually or by using weedicides.

59. Which of the following is not a traditional irrigation method?
    (A) Moat (B) Chain pump
    (C) Lever system (D) Drip system

60. Which of the following is used to preserve food grains at home?
    (A) Spinach leaves (B) Curry leaves
    (C) Neem leaves (D) Tulsi leaves

61. What are the advantages of preparing the soil?
    (A) Allows roots to penetrate the soil easily. (B) Makes decomposition by microbes easier.
    (C) Makes the top soil nutrient rich. (D) All of these

62. Maize grow well during
    (A) June (B) January
    (C) April (D) September

63. Transplantation of seedling is done in
    (A) coffee (B) cocoa
    (C) rice (D) mango

64. Compost is a
    (A) manure (B) fertiliser
    (C) pesticide (D) weedicide

65. The rod shaped bacteria are called
    (A) Bacillus (B) Coccus
    (C) Vibrio (D) Spirillum

66. Which bacteria helps in settling of curd?
    (A) Rhizobium (B) Lactobacillus
    (C) Vibriocholarae (D) Bacillus

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. A book is placed on your study chair at rest. Consider the following forces:
    (I) A downward force of gravity
    (II) An upward force exerted by the chair
    (III) A net downward force exerted by the air
    Then, which of the force(s) is/are acting on the book?
    (A) Only (I) is correct   (B) (I) and (II) both are correct
    (C) (I), (II) and (III) are correct   (D) none of the above forces

68. Find the limiting force of friction between an iron block and surface, if coefficient of friction between block and surface is 0.08 and the mass of block is 60 kg (if g = 10 m/s^2)
    (A) 480 N   (B) 48 N
    (C) 4.80 N   (D) 60 N

69. Three forces starts acting simultaneously on a particle moving with velocity $\vec{v}$. These forces are represented in magnitude and direction by the three sides of a triangle *ABC* (as shown). The particle will now move with velocity

    (A) $\vec{v}$ remaining unchanged

    (B) Less than $\vec{v}$

    (C) Greater than $\vec{v}$

    (D) $\vec{v}$ in the direction of the largest force *BC*
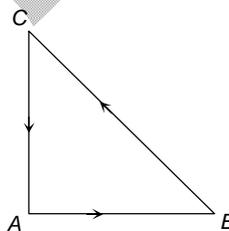
Space for Rough Work

70.   The pressure of sea water is maximum at :
        (A) the bottom of the sea   (B) the top of the sea
        (C) half way the depth of the sea   (D) is same everywhere

71.   Find normal reaction acting on block 2 kg.
        (A) 2g upward
        (B) 2g downward
        (C) 6g upward
        (D) 6g downward
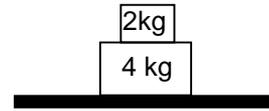
72.   Find acceleration of block
        (A) $1 \, \text{m/s}^2$
        (B) $2 \, \text{m/s}^2$
        (C) $3 \, \text{m/s}^2$
        (D) $4 \, \text{m/s}^2$
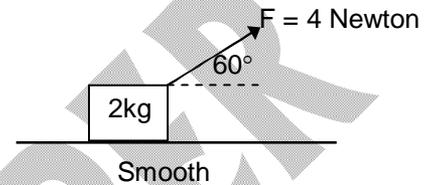
Space for Rough Work

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. A substance is said to be sonorous if it
    (A) Conducts heat
    (B) Conducts electricity
    (C) Conducts water through metal pipes
    (D) Produces a ringing sound when beaten

74. Which of the following is a non-metal but is lustrous?
    (A) Carbon
    (B) Mercury
    (C) Iodine
    (D) Fluorine

75. Terylene is a popular form of
    (A) Polyster
    (B) Monomer
    (C) Plastic
    (D) Nylon

76. Fibres of _____ resemble that of Silk and hence, it is popularly known as artificial Silk.
    (A) Acrylic
    (B) Polyester
    (C) Rayon
    (D) Nylon

77. Which one of the following is a thermosetting plastic?
    (A) PET
    (B) Acrylic
    (C) Melamine
    (D) Polythene

78. Metals like zinc and Aluminium react with Sodium hydroxide to produce which gas.
    (A) Hydrogen
    (B) Hydrogen Sulphide
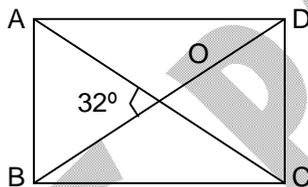   (C) Oxygen
    (D) Sulphur dioxide

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. Which of the following is a polyhedron?
    (A) cube   (B) pyramid   (C) cuboid   (D) all of these

80. In a right-angled triangle, find the hypotenuse if base and perpendicular are respectively 36015 cm and 48020 cm
    (A) 69125 cm   (B) 60025 m
    (C) 391025 cm   (D) 60125 cm

81. When the diagonals of a parallelogram are perpendicular to each other and diagonals are not equal then it is called:
    (A) square   (B) rectangle   (C) rhombus   (D) parallelogram

82. In the given figure, ABCD is a rectangle whose diagonals AC and BD intersect at O.
    If ∠AOB = 32º, then find ∠OCD.

    (A) 70º   (B) 72º   (C) 74º   (D) 80º

83. A man completes a journey in 10 hours. He travels first half of the journey at the rate of 21 km/hr and second half at the rate of 24 km/hr. Find the total journey in km.
    (A) 220 km   (B) 224 km   (C) 228 km   (D) 240 km

84. Which condition is true for $\dfrac{p}{q}$ to be rational number ?

    (A) q = 0   (B) p and q are whole numbers.
    (C) p and q are integers.   (D) p cannot be 0.

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. Mushroom belongs to
     (A) Algae   (B) Virus
     (C) Fungi   (D) None of these

86. Scientist who discovered fermentation is
     (A) Alexander Fleming   (B) Louis Pasteur
     (C) John Mendal   (D) Edward Jenner

87. In order to take precautionary steps to control dengue, we must take measures to stop the breeding of:
     (A) Aedes mosquito   (B) Fleas
     (C) Fire ants   (D) Anopheles mosquito

88. Partial sterilization of a product such as milk at a high temperature is known as:
     (A) Pasteurization   (B) Filtration
     (C) Pickling   (D) Refrigeration

89. Which of the following is a communicable disease?
     (A) Diabetes   (B) Chicken pox
     (C) Alzheimer's   (D) Cancer

90. Select the method(s) of irrigation which can be employed in an uneven land.
     (i) Moat
     (ii) Sprinkler
     (iii) Chain Pump
     (iv) Drip System
     (A) (ii) and (iv)   (B) Only (iv)
     (C) (i), (ii) and (iii)   (D) (i) and (ii)

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. A force of 10 N is acting on a body of mass 20 kg for 10 seconds. Change in its momentum is
    (A) 5 kg m/s   (B) 200 kg m/s
    (C) 100 kg m/s   (D) 1000 kg m/s

92. Find the limiting force of friction between an iron block and surface, if coefficient of friction between block and surface is 0.08 and the mass of block is 60 kg (if g = 10 m/s^2)
    (A) 480 N   (B) 48 N
    (C) 4.80 N   (D) 60 N

93. The pressure at the bottom of a tank containing a liquid does not depend on
    (A) Acceleration due to gravity   (B) Height of the liquid column
    (C) Area of the bottom surface   (D) Nature of the liquid

94. A body is in motion, we can conclude
    (A) net unbalanced force must be acting on body
    (B) force may be acting on body
    (C) net force acting on body must be zero
    (D) none of these

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. Coke is used in the manufacture of
     (A) Sodium   (B) Mercury
     (C) Steel   (D) Potassium

96. When Zinc reacts with dilute solphuric acid, a salt is formed with the release of a gas. The gas produced during this puts off of burning candle with a pop sound. The gas evolved during this reaction is:
     (A) Sulphur dioxide   (B) Oxygen
     (C) Hydrogen   (D) Hydrogen Sulphide

97. When Sulphur reacts with oxygen, the oxide formed is _____ in nature.
     (A) Alkaline   (B) Neutral
     (C) Basic   (D) Acidic

98. When MgO is dissolved in water, $Mg(OH)_2$ is obtained. The solution thus obtained is _____ is nature.
     (A) Amphoteric   (B) Alkaline
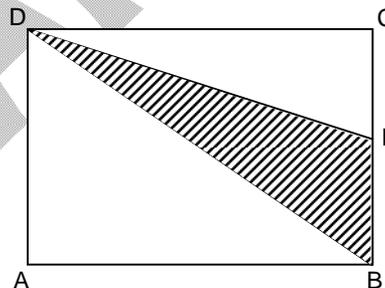   (C) Neutral   (D) Acidic

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. If both a and b be rational numbers then a and b satisfying $\dfrac{3-\sqrt{5}}{3+2\sqrt{5}} = a\sqrt{5} - b$ are

   (A) $a = \dfrac{9}{11}, b = \dfrac{19}{11}$ 　　(B) $a = \dfrac{19}{11}, b = \dfrac{9}{11}$ 　　(C) $a = \dfrac{2}{11}, b = -\dfrac{8}{11}$ 　　(D) $a = \dfrac{10}{11}, b = \dfrac{21}{11}$

100. The multiplicative inverse of $-2\dfrac{1}{5}$ is :

   (A) $-\dfrac{11}{5}$ 　　　　(B) $\dfrac{11}{5}$ 　　　　(C) $\dfrac{5}{11}$ 　　　　(D) $-\dfrac{5}{11}$

101. 1+3+5+7+....+37=
   (A) 361 　　　　(B) 261 　　　　(C) 289 　　　　(D) 324

102. ABCD is a rectangle. F is the mid-point of BC. If area
   BDF = 10 cm^2 then area ABCD is
   (A) 40 cm^2
   (B) 20 cm^2
   (C) 10 cm^2
   (D) 80 cm^2

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. Vaccine for small pox is discovered by
(A) Louis Pasteur
(B) Alexander Fleming
(C) Edward Jenner
(D) John Mendal

104. Amount of nitrogen in the atmosohere is
(A) 58 %
(B) 68 %
(C) 78 %
(D) 88 %

105. _____ are the agents that act as carriers of a pathogen and spread diseases.
(A) Vectors
(B) Microbes
(C) Parasites
(D) DNA

106. Which among the following statements is not associated with food preservation?
(A) Prevention of decay or spoilage
(B) Decreased shelf life
(C) Air-tight sealing
(D) Storage for future use

107. Match the following.
A. *Rhizobium*   i. Antibiotic
B. *Lactobacillus*   ii. Soil fertility
C. *Penicillium*   iii. Vaccine
D Rabies   iv. Milk curdling

	A	B	C	D
(A)	ii	i	iii	iv
(B)	i	iii	ii	iv
(C)	ii	iv	i	iii
(D)	i	ii	iv	iii

108. **Assertion (A):** Immunity to chickenpox is considered as acquired immunity.
Reason (R): Immunity that is inherited from parents is considered as acquired immunity
(A) Both A and R are true and R is the correct explanation for A.
(B) Both A and R are true and R is the not correct explanation for A.
(C) A is true and R is false
(D) A is false and R is true

109. **Assertion (A):** Yeast can be used commercially to produce alcohol
Reason R: Yeast can perform fermentation
(A) Both A and R are true and R is the correct explanation for A.
(B) Both A and R are true and R is the not correct explanation for A.
(C) A is true and R is false
(D) A is false and R is true

110. Which one of the following is not a communicable disease?
(A) Cancer
(B) Common cold
(C) Malaria
(D) Dengue fever

Space for Rough Work

FIITJEE Big Bang Edge Test - 2022

for students presently in Class 8 (going to 9) (Paper 1)

SAMPLE PAPER ANSWER KEY

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