FIITJEE Big Bang Edge Test - 2022

for students presently in Class 8 (going to 9) (Paper 2)

Time: 3 Hours (2:00 pm – 5:00 pm) **CODE: 89-2** ***Maximum Marks: 272***

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 55 Minutes on Section-I, 45 Minutes on Section-II, 40 Minutes on Section-III and 40 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	PHYSICS	(PART-A)	1 to 12	+1	0
	CHEMISTRY	(PART-B)	13 to 24	+1	0
	MATHEMATICS	(PART-C)	25 to 36	+1	0
	BIOLOGY	(PART-D)	37 to 48	+1	0
SECTION – II	PHYSICS	(PART-A)	49 to 52	+4	–1
	CHEMISTRY	(PART-B)	53 to 56	+4	–1
	MATHEMATICS	(PART-C)	57 to 60	+4	–1
	BIOLOGY	(PART-D)	61 to 68	+4	–1
SECTION – III	PHYSICS	(PART-A)	69 to 76	+3	–1
	CHEMISTRY	(PART-B)	77 to 84	+3	–1
	BIOLOGY	(PART-C)	85 to 92	+3	–1
SECTION – IV	PHYSICS	(PART-A)	93 to 97	+3	0
	CHEMISTRY	(PART-B)	98 to 102	+3	0
	MATHEMATICS	(PART-C)	103 to 107	+3	0
	PHYSICS	(PART-D)	108 to 110	+3	0
	CHEMISTRY	(PART-E)	111 to 113	+3	0
	MATHEMATICS	(PART-F)	114 to 116	+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. 108 to 116.**

Note: ***Please check this Question Paper contains all 116 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 **108 to 116**

Numerical based questions single digit answer 0 to 9

Example 1:

If answer is 6.

Correct method:

⓪ ① ② ③ ④ ⑤ ● ⑦ ⑧ ⑨

Example 2:

If answer is 2.

Correct method:

⓪ ① ● ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Recommended Time: 55 Minutes for Section – I

Section – I

PHYSICS – (PART – A)

*This part contains **12 Multiple Choice Questions** number **1 to 12.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

1. Pressure at a point in the liquid is :
   (A) same in all directions
   (B) greater in the upward direction
   (C) grater in the downward direction
   (D) none of these

2. According to which of the following scientist, "an increase in pressure at any point inside a liquid at rest is transmitted equally and without any change in all directions to every other point in the liquid".
   (A) Boyle
   (B) Pascal
   (C) Archimedes
   (D) Newton

3. What is archimede's principle. Choose the most appropriate:
   (A) buoyant force = weight of object (for sunk object)
   (B) buoyant force = weight of object (for floating as well as sunk object)
   (C) buoyant force = weight of replaced water (for only a floating object)
   (D) buoyant force = weight of replaced water (for all cases)

4. Which of the following groups of forces could be in equibrium
   (A) 3 *N*, 4 *N*, 5 *N*
   (B) 4*N*, 5 *N*, 10 *N*
   (C) 30*N*, 40 *N*, 80 *N*
   (D) 1*N*, 3 *N*, 5 *N*

5. A person is standing in an elevator, in which situation he finds his weight greater than actual weight:
   (A) The elevator moves upwards with constant velocity
   (B) The elevator moves downwards with constant acceleration
   (C) The elevator moves downwards with constant velocity
   (D) The elevator moves upwards with constant acceleration

6. Weight of the body in air is 100 N and its appeared weight in water is 36 N then Buoyant force acting on it is
   (A) 100 N
   (B) 36 N
   (C) 64 N
   (D) 136 N

Space for Rough Work

7. Apparent weight of the body of density (ρ) when immersed in a liquid of density (σ) is
(A) Apparent weight = Actual weight **+** Upthrust (B) Apparent weight **>** Actual weight
(C) Apparent weight = Actual weight **-** Upthrust (D) (A), (B) and (C) all are correct explanations

8. What happens to the coefficient of friction, when the normal reaction is halved
(A) Halved (B) Doubled
(C) No change (D) Depends on the nature of the surface

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

10. 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

11. A wooden cylinder floats vertically in water with half of its length immersed. The density of wood is
(A) Equal of that of water (B) Half the density of water
(C) Double the density of water (D) The question is incomplete

12. 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

Space for Rough Work

CHEMISTRY – (PART – B)

*This part contains **12 Multiple Choice Questions** number **13 to 24.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

13. The most abundant element in the earth's crust.
(A) Oxygen (B) Silicon
(C) Hydrogen (D) Aluminium

14. Bromine is
(A) A gas at room temperature (B) A solid at room temperature
(C) A liquid at room temperature (D) A semi-solid at room temperature

15. Which of the following is most abundant metal in the earths crust?
(A) Cu (B) Zn
(C) Al (D) Fe

16. Which of the following statements is false?
(A) The repeat unit in natural rubber is isoprene
(B) Both starch and cellulose are polymer of glucose
(C) Artificial silk is derived from cellulose
(D) Nylon-6,6 is an example of elastomer

17. The chemicals that have fruity smell are
(A) Alcohols (B) Esters
(C) Ketones (D) Amides

18. The weakest interparticle forces are present in:
(A) Thermosetting polymers (B) Fibres
(C) Elastomers (D) Thermoplastic polymers

19. Which of the following is mixed with rayon to make carpets?
(A) Cotton (B) Jute
(C) Silk (D) Wool

Space for Rough Work

20. The metal which melts at around room temperature is
(A) Sodium (B) Gallium
(C) Germanium (D) Potassium

21. Chemical composition of galena
(A) HgS (B) CuS
(C) PbS (D) ZnS

22. Which of the following is not a fibre?
(A) Terylene (B) Nylons
(C) Polyacrylonitrite (D) Poly chloroprene.

23. The most abundant element in the universe is
(A) Oxygen (B) Helium
(C) Hydrogen (D) Nitrogen

24. Metal which can catch fire even without any external heat source.
(A) Silver (B) Sodium
(C) Iron (D) Aluminium

Space for Rough Work

MATHEMATICS – (PART – C)

*This part contains **12 Multiple Choice Questions** number **25 to 36.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

25. If $x + y = a$ and $xy = b$, then the value of $\frac{1}{x^3} + \frac{1}{y^3}$ is

(A) $\frac{a^3 - 3ab}{b^3}$ (B) $\frac{a^3 - 3ab^2}{b^3}$

(C) $\frac{a^3 - 3a^2b}{b}$ (D) $\frac{a^3 - 3}{b^2}$

26. A reduction of 20% in the price of rice enables a person to buy 3.5 kg more rice for Rs. 385. The original price of rice per kg is:

(A) Rs. 20 (B) Rs. 22.50

(C) Rs. 25 (D) Rs. 27.50

27. $36.2\overline{8} = \frac{p}{90}$ then p+ 90 =

(A) 3266 (B) 3628 (C) 3556 (D) 3356

28. A mixture contains alcohol and water in the ratio 8 :11. If 5 litres of alcohol is added to the mixture, the ratio becomes 4 :5. The quantity of alcohol in the previous mixture is

(A) 10 litres (B) 50 litres (C) 7.5 litres (D) 2.5 litres

29. The rational number 0 is

(A) positive (B) negative (C) both (A) and (B) (D) none of these

30. LCM of $\frac{5}{12}$ and $\frac{6}{17}$ is

(A) $\frac{11}{29}$ (B) $\frac{1}{30}$ (C) $\frac{30}{1}$ (D) $\frac{1}{204}$

31. $\frac{1}{x+2} + \frac{1}{x+3} = \frac{2}{x+9}$ then x is

(A) $-\frac{33}{13}$ (B) $\frac{33}{13}$ (C) $-\frac{13}{33}$ (D) $\frac{13}{33}$

Space for Rough Work

32. The sum of two irrational numbers
(A) is always rational (B) is always irrational
(C) can be rational as well as irrational (D) is nither rational nor irrational

33. Four identical small rectangles are put together to form a large rectangle as shown. The length of the shorter side of the large rectangle is 10 cm. What is the length of the longer side of the large rectangle?

(A) 10 cm (B) 20 cm
(C) 30 cm (D) 40 cm

34. ABCD is a rhombus with $\angle ABC = 56^o$, then the $\angle ACD$ will be:
(A) 56^o (B) 62^o (C) 124^o (D) 34^o

35. If $\cfrac{2x}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{x}{1-x}}}} = 1$, then find the value of x.
(A) $\frac{2}{3}$ (B) $\frac{1}{3}$ (C) $\frac{5}{6}$ (D) $\frac{1}{4}$

36. Which of the following statements is false ?
(A) Natural numbers are closed under addition
(B) Whole numbers are closed under addition
(C) Integers are closed under addition
(D) Rational numbers are not closed under addition

Space for Rough Work

BIOLOGY – (PART – D)

*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. What are the important steps in the preparation of soil?
(A) Loosening and sowing (B) Loosening and weeding
(C) Turning and sowing (D) Turning and loosening

38. If you were a farmer, which of the following methods will you use to separate good quality and viable grains from a heap of grains after harvest?
(A) Checking the weight of grains. (B) Checking grains under sunlight for pores.
(C) Immersing the grains in water. (D) Sowing seeds and waiting for germination.

39. The process by which amount of nitrogen remains the same in the atmosphere is known as
(A) fermentation (B) carbon cycle
(C) nitrogen cycle (D) photosynthesis

40. Which of the following disease is spread due to bacteria?
(A) Tuberculosis (B) Measles
(C) Chicken pox (D) Polio

41. The process of separation of grain from the chaff after harvesting is known as
(A) tilling (B) threshing
(C) spraying (D) weeding

42. _____ is used for the production of alcohol and wine.
(A) Yeast (B) Mosquito
(C) Ant (D) Algae

43. Which organisms are microscopic and dependent on host organisms for reproduction?
(A) Algae (B) Protozoa
(C) Viruses (D) Bacteria

Space for Rough Work

44. Which one of the following is not a method of food preservation?
(A) Salting (B) Drying
(C) Boiling (D) Pickling

45. Rabi crop is harvested in
(A) January (B) March
(C) October (D) September

46. The status of algae in the aquatic food chain is
(A) consumers (B) producers
(C) host (D) small in size

47. Arrange the following agricultural practices in the order in which they are followed.
1. Harvesting
2. Sowing
3. Storage
4. Irrigation
5. Preparation of soil
(A) $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5$ (B) $5 \rightarrow 2 \rightarrow 4 \rightarrow 1 \rightarrow 3$
(C) $2 \rightarrow 1 \rightarrow 3 \rightarrow 5 \rightarrow 4$ (D) $5 \rightarrow 3 \rightarrow 4 \rightarrow 1 \rightarrow 2$

48. Which of the following should be used by a farmer with a large farm to harvest his crops quickly and efficiently?
(A) Winnowing machine (B) Combine
(C) Sickle (D) Seed drill

Space for Rough Work

Recommended Time: 45 Minutes for Section – II

Section – II

PHYSICS – (PART – A)

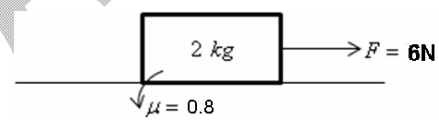
*This part contains **4 Multiple Choice Questions** number **49 to 52.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

49. The tension in the spring is

(A) Zero
(B) 2.5 *N*
(C) 5 *N*
(D) 10 *N*

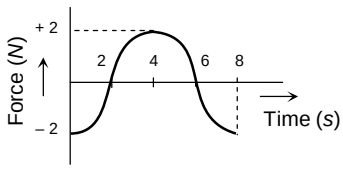
50. Static friction force acting on a body is
(A) self adjusting force
(B) depends on area of contact
(C) constant force
(D) can never be zero

51. A block of mass 2 kg is placed on a rough surface, F = 6 N is applied on the block as shown, force of friction on the block is



(A) 12 N
(B) 0 N
(C) 10 N
(D) 6 N

52. The force-time (*F – t*) curve of a particle executing linear motion is as shown in the figure. The momentum acquired by the particle in time interval from zero to 8 *second* will be



(A) – 2 *N-s*
(B) + 4 *N-s*
(C) 6 *N-s*
(D) Zero

Space for Rough Work

CHEMISTRY – (PART – B)

*This part contains **4 Multiple Choice Questions** number **53 to 56.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

53. Sulphide ores are generally concentrated by
(A) Froth floatation (B) Roasting
(C) Gravity Seperation (D) Reduction by carbon.

54. Cellulose is a condensation polymer of
(A) Maltose (B) β-glucose
(C) α-glucose (D) β-fructose

55. Give the constituent of fluorspar
(A) MnO_4 (B) CaF_2
(C) $Sn(SO_2)_3$ (D) None of these

56. Duralumin is made up of
(A) Al, Cu, Mn, Zn (B) Al, Mg, Cu, Zn
(C) Al, Mn, Mg, Cu (D) Al, Mg, Zn, Fe

Space for Rough Work

MATHEMATICS – (PART – C)

*This part contains **4 Multiple Choice Questions** number **57 to 60.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

57. Find the value of x, $\frac{ax+b}{cx+d}=e$

(A) $\frac{bd-e}{ac-e}$ (B) $\frac{eb-d}{ec-a}$ (C) $\frac{ed-b}{e-ac}$ (D) $\frac{ed-b}{a-ec}$

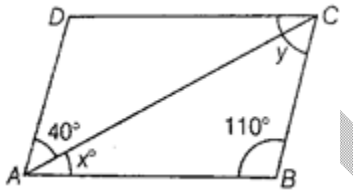
58. $x=\cfrac{-9}{-6+\cfrac{-9}{-6+\cfrac{-9}{-6+....\infty}}}$, then x^3=

(A) –8 (B) 8 (C) 27 (D) –27

59. A rational number between $\frac{-2}{3}$ and $\frac{1}{2}$ is

(A) -1 (B) $-\frac{5}{6}$ (C) $-\frac{1}{12}$ (D) 5

60. In the given figure, ABCD is a parallelogram with $\angle B = 110^o$. Find the values of x and y.



(A) x = 20º, y = 60º (B) x = 30º, y = 70º
(C) x = 40º, y = 50º (D) x = 10º, y = 60º

Space for Rough Work

BIOLOGY – (PART – D)

*This part contains **8 Multiple Choice Questions** number **61 to 68.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

61. What helps in the rise of bread or dosa dough?
(A) Heat (B) Grinding
(C) Growth of yeast cells (D) Low pressure

62. Grains produced at a large scale can be stored in
(A) Silos (B) Jute bags
(C) Granaries (D) Both (A) and (C)

63. Dried leaves can be used to _____
(A) repel insects (B) control weeds
(C) increase soil fertility (D) None of these

64. The agricultural instrument used for removal of weed is
(A) sickle (B) khurpi
(C) seed drill (D) plough

65. The chemical substances rich in nutrients are called
(A) fertiliser (B) weedicide
(C) pesticides (D) herbicides

66. While baking cakes, yeast reproduces rapidly and produces gas.
(A) Hydrogen (B) Oxygen
(C) carbon dioxide (D) nitrogen

67. Microorganisms are
(A) Unicellular (B) Multi-cellular
(C) Both (A) and (B) (D) None of these

68. The disease caused by protozoa is
(A) tuberculosis (B) polio
(C) typhoid (D) malaria

Space for Rough Work

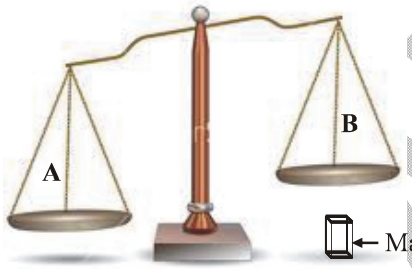
Recommended Time: 40 Minutes for Section – III

Section – III

PHYSICS – (PART – A)

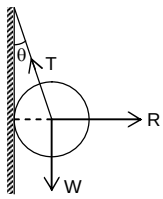
*This part contains **8 Multiple Choice Questions** number **69 to 76.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

69. A grocery shop keeper develops a trick to cheat the customers, He keeps a hidden magnet under one of the iron pan of the beam balance as shown in figure. Then to fulfill his purpose he should place the item to be weighed in:



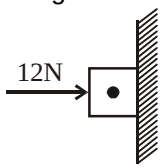
(A) Pan A
(B) Pan B
(C) Pan A or Pan B
(D) The trick will not work

70. A metal sphere is hung by a string fixed to a wall. The forces acting on the sphere are shown in figure. Which of the following statement is correct:



(A) $\vec{R}+\vec{T}+\vec{W}=0$
(B) R=T+ W
(C) T = R + W
(D) R = tanθ

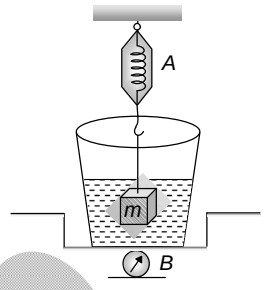
71. A block of weight 5 N is pushed against a vertical wall by a force 12 N. The coefficient of friction between the wall and block is 0.6. The magnitude of the force exerted by the wall on the block is



(A) 12 N
(B) 5 N
(C) 7.2 N
(D) 13 N

Space for Rough Work

72. The spring balance *A* reads 2 *kg* with a block *m* suspended from it. *A* balance *B* reads 5 *kg* when a beaker filled with liquid is put on the pan of the balance. The two balances are now so arranged that the hanging mass is inside the liquid as shown in figure. In this situation



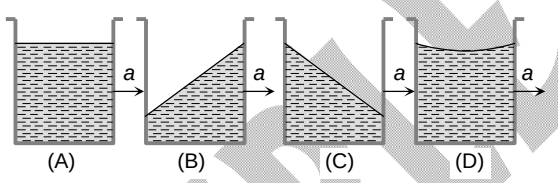
(A) The balance *A* will read more than 2 *kg*
(B) The balance *B* will read less than 5 *kg*
(C) The balance *A* will read less than 2 *kg*
(D) The balances *A* and *B* will read 2 *kg* and 5 *kg* respectively

73. Identify the wrong statement.
The momentum of a body is
(A) The product of mass and velocity of the body
(B) The product of force and time
(C) The product of force and velocity
(D) Measured in kg m/s in S.I. system

74. A body of mass m is kept stationary on a rough inclined plane of inclination θ. The magnitude of force acting on the body by the inclined plane is

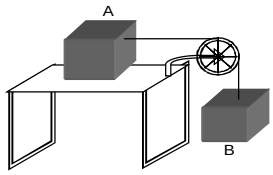
(A) mg
(B) mg sin θ
(C) mg cos θ
(D) $mg\sqrt{1+\cos^2\theta}$

75. A vessel containing water is given a constant acceleration *a* towards the right, along a straight horizontal path. Which of the following diagram represents the surface of the liquid



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

76. A block A of mass 7 kg is placed on a frictionless table. A thread tied to it passes over a frictionless pulley and carries a body B of mass 3 kg at the other end. The acceleration of the system is (given g = $10\,ms^{-2}$)



(A) $100\,ms^{-2}$
(B) $3\,ms^{-2}$
(C) $10\,ms^{-2}$
(D) $30\,ms^{-2}$

Space for Rough Work

CHEMISTRY – (PART – B)

*This part contains **8 Multiple Choice Questions** number **77 to 84.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

77. Metals, except Al and Zn, react with oxygen to from _____ oxides.
(A) Acidic (B) Neutral
(C) Amphoteric (D) Basic

78. The monomeric unit of natural rubber is
(A) 1, 3-Butadiene (B) Chloroprene
(C) Isoprene (D) Styrene

79. Which of the following is a polyamide?
(A) Teflon (B) Nylon – 6, 6
(C) Terylene (D) Bakelite.

80. Buna-N is a polymer of:
(A) 1, 3-butadiene and acrylonitrile (B) Acrylonitrile
(C) Styrene (D) None of these

81. To make PVC a flexible plastic, the additive used is called
(A) Filler (B) Antioxidant
(C) Plasticizer (D) Stabilizer

82. Nylon-6,6 is a strong crystalline fibre due to the presence of intermolecular forces which are:
(A) H-bonds (B) Covalent bonds
(C) Vander waal's attractive forces (D) Ionic bonds

83. Which of the following do not react readily with water?
(A) Zinc (B) Sodium
(C) Potassium (D) Copper

84. Terylene is used in making:
(A) Shirts and other dresses (B) Nonstick coating
(C) In food packaging (D) None of these

Space for Rough Work

BIOLOGY – (PART – C)

*This part contains **8 Multiple Choice Questions** number **85 to 92.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

85. BHC (Benzene hexachloride) is a
(A) weedicide (B) fertiliser
(C) fungicide (D) pesticides

86. Supply of water to crops at appropriate intervals is called
(A) cultivation (B) irrigation
(C) harvesting (D) sowing

87. Which instrument is used for spraying weedicides?
(A) Sprayer (B) Cultivator
(C) Plough (D) Combine

88. Which of the following is not used as food preservatives?
(A) Salt (B) Sugar
(C) Vinegar (D) Methane

89. Vaccines are made up of:
(A) Chemicals (B) Weak microorganisms
(C) Viruses (D) Drugs

90. NPK is an example of
(A) Weedicide (B) Manure
(C) Fertilizer (D) Insecticide

91. Substances that are produced by the body to fight against the invader is
(A) Antibiotic (B) Vaccine
(C) Antibody (D) Antigen

92. The antibiotic penicillin was discovered by
(A) Alexander Fleming (B) Ernst Boris Chain
(C) Robert Hooke (D) Howard Florey

Space for Rough Work

Recommended Time: 40 Minutes for Section – IV

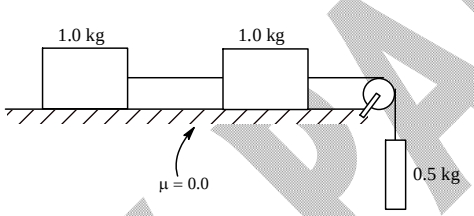
Section – IV

PHYSICS – (PART – A)

*This part contains **5 Multiple Choice Questions** number **93 to 97.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

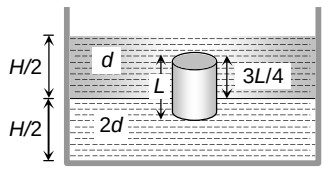
93. A cricket ball of mass 200 gm moving with a speed of 40 m/s is brought to rest by a player in 0.04s. then average force applied by the player
(A) 16 (B) 100
(C) 200 N (D) None of these

94. Consider the situation shown in the figure below and calculate the tension in the string connecting the 1.0 kg blocks



(A) 2.00 N (B) 1.96 N
(C) 1.98 N (D) 2.02 N

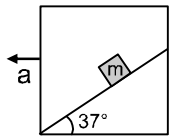
95. A homogeneous solid cylinder of length L ($L < H/2$). Cross-sectional area $A/5$ is immersed such that it floats with its axis vertical at the liquid-liquid interface with length $L/4$ in the denser liquid as shown in the fig. The lower density liquid is open to atmosphere having pressure P_0. Then density D of solid is given by

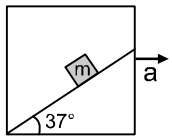


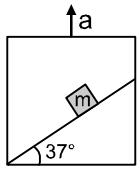
(A) $\frac{5}{4}d$ (B) $\frac{4}{3}d$
(C) Ad (D) $\frac{d}{5}$

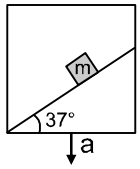
Space for Rough Work

96. A block of mass m is placed on a wedge. The wedge can be accelerated in four manners marked as (1), (2), (3) and (4) as shown. If the normal reactions in situation (1), (2), (3) and (4) are N_1, N_2, N_3 and N_4 respectively then :

(1) 

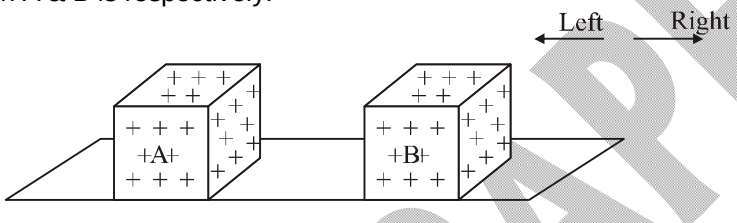
(2) 

(3) 

(4) 

(A) $N_3 > N_4$
(B) $N_4 = N_3$
(C) $N_4 = N_1$
(D) $N_1 = N_2$

97. Two metal blocks A & B each having some amount of +ve charge are placed on a rough horizontal table as shown in the figure. If both of them are at rest then the direction of frictional force acting on A & B is respectively:



(A) Leftwards, Leftwards
(B) Leftwards, Rightwards
(C) Rightwards, Rightwards
(D) Rightwards, Leftwards

Space for Rough Work

CHEMISTRY – (PART – B)

*This part contains **5 Multiple Choice Questions** number **98 to 102.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

98. Firemen uniforms are usually made up of
(A) Metallic fibre (B) Melamine fibre
(C) Carbon fibre (D) Cromic fibre

99. Which oil is used as frother in froth floatation process?
(A) Mustard oil (B) Coconut oil
(C) Olive oil (D) Pine oil

100. Buna – S is a Synthetic copolymer of
(A) Styrene and ethylene (B) 1, 3-butadiene and ethylene
(C) Styrene and 1, 3 –butadiene (D) None of these

101. Aquaregia is mixture of
(A) 1 volume of conc. HCl and 3 volumes of conc. HNO_3
(B) 1 volume of conc. HNO_3 and 3 volumes of conc. HCl
(C) Equal volumes of conc. HNO_3 and conc. H_2SO_4.
(D) 1 volume of conc. HNO_3 and 3 volumes of conc. H_2SO_4

102. Which of the following is a fully fluorinated polymer?
(A) Neoprene (B) Polyvinyl chloride
(C) Thiokal (D) Teflon

Space for Rough Work

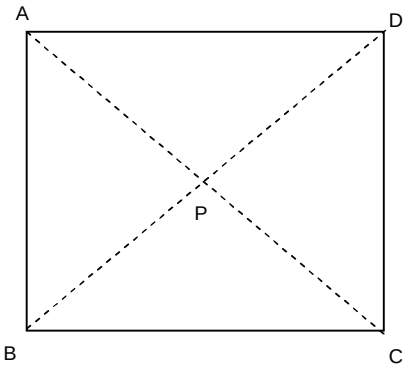
MATHEMATICS – (PART – C)

*This part contains **5 Multiple Choice Questions** number **103 to 107.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

103. Two coins are tossed, find the probability the two heads are obtained

(A) $\frac{1}{4}$ (B) $\frac{2}{4}$ (C) $\frac{3}{4}$ (D) 1

104. In the figure diagonals of rectangle meet at P.
IfAP = 4x + 2 and BP = x + 8 then find x



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

105. Two dice are tossed. The probability that the total score is a prime number is:
(A) 5/12 (B) 1/6 (C) 1/2 (D) 7/9

106. In A frequency distribuation, then mid value of a class is 10 and the width of the class is 6. Find the lower limit of the class.
(A) 5 (B) 2 (C) 7 (D) 9

107. If $\frac{1}{4}\times\frac{2}{6}\times\frac{3}{8}\times\frac{4}{10}\times\frac{5}{12}\times.....\times\frac{31}{64}=\frac{1}{2^x}$, the value of x is:
(A) 31 (B) 32 (C) 36 (D) 37

Space for Rough Work

PHYSICS – (PART – D)

This part contains ***3 Numerical Based Questions*** *number* ***108 to 110.*** *Each question has* ***Single Digit Answer 0 to 9.***

108. A body of mass 2 kg moving with a velocity of 3 m/s collides head on with a body of mass 1kg moving in opposite direction with a velocity 4 m/s. After collision two bodies stick together and move with a common velocity of K/3 m/s, find the value of K.

109. The pressure of water on the ground floor is 50,000 Pa and at first floor is 10,000 Pa. Find the height of the first floor (in metre). (Take: density of water = 1000 kg m^{-3}, g = 10 m s^{-2})

110. A constant retarding force of 40 N is applied to a body of mass 20 kg moving initially with a speed of 16 m/s. How long does the body takes to stop?

Space for Rough Work

CHEMISTRY – (PART – E)

*This part contains **3 Numerical Based Questions** number **111 to 113.** Each question has **Single Digit Answer 0 to 9.***

111. In the given elements how many of them are semi-metals
C, Si, P, Ge, As, S, Cl, Sb, Ne

112. In Epsom salt $MgSO_4.XH_2O$. What is the value of X?

113. In the given properties how many belongs to metals:
Ductility, Conductivity, Brittle, Low B.P. and M.P. Lustre, Non-sonorous, Dense, Electropositive

Space for Rough Work

MATHEMATICS – (PART – F)

This part contains ***3 Numerical Based Questions*** *number* ***114 to 116.*** *Each question has* ***Single Digit Answer 0 to 9.***

114. If $\frac{\sqrt{x+4}+\sqrt{x-4}}{\sqrt{x+4}-\sqrt{x-4}}=2$ then find x

115. If $a+b+c=0,$ then the value of $\left(\frac{a+b}{c}+\frac{b+c}{a}+\frac{c+a}{b}\right)\left(\frac{a}{b+c}+\frac{b}{c+a}+\frac{c}{a+b}\right)$ is x. Find x

116. $\sqrt{2\sqrt{2\sqrt{2.....\infty}}}=$

Space for Rough Work

FIITJEE Big Bang Edge Test - 2022

for students presently in Class 8 (going to 9) (Paper 2)

SAMPLE PAPER ANSWER KEY

1.	**A**	2.	**B**	3.	**D**	4.	**A**
5.	**D**	6.	**C**	7.	**C**	8.	**C**
9.	**D**	10.	**C**	11.	**B**	12.	**C**
13.	**A**	14.	**C**	15.	**C**	16.	**D**
17.	**B**	18.	**C**	19.	**D**	20.	**B**
21.	**C**	22.	**D**	23.	**C**	24.	**B**
25.	**A**	26.	**D**	27.	**D**	28.	**B**
29.	**D**	30.	**C**	31.	**A**	32.	**C**
33.	**B**	34.	**B**	35.	**A**	36.	**D**
37.	**D**	38.	**C**	39.	**C**	40.	**A**
41.	**B**	42.	**A**	43.	**C**	44.	**C**
45.	**B**	46.	**B**	47.	**B**	48.	**B**
49.	**C**	50.	**A**	51.	**D**	52.	**D**
53.	**A**	54.	**B**	55.	**B**	56.	**C**
57.	**D**	58.	**C**	59.	**C**	60.	**B**
61.	**C**	62.	**D**	63.	**A**	64.	**B**
65.	**A**	66.	**C**	67.	**A**	68.	**D**
69.	**B**	70.	**A**	71.	**D**	72.	**C**
73.	**C**	74.	**A**	75.	**C**	76.	**B**
77.	**D**	78.	**C**	79.	**B**	80.	**A**
81.	**C**	82.	**A**	83.	**D**	84.	**A**
85.	**D**	86.	**B**	87.	**A**	88.	**D**
89.	**B**	90.	**C**	91.	**C**	92.	**A**
93.	**C**	94.	**B**	95.	**A**	96.	**A**
97.	**D**	98.	**B**	99.	**D**	100.	**C**
101.	**B**	102.	**D**	103.	**A**	104.	**A**
105.	**A**	106.	**C**	107.	**C**	108.	**2**
109.	**4**	110.	**8**	111.	**4**	112.	**7**
113.	**5**	114.	**5**	115.	**9**	116.	**2**