

FIITJEE SAMPLE PAPER

(FIITJEE Talent Reward Exam-2019)



for students presently in

Class 9 (Paper 2)

Time: 3 Hours (1:45 pm – 4:45 pm)

Code 9009

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.

- You are advised to devote 30 Minutes on Section-I, 50 Minutes on Section-II, 50 Minutes on Section-III and 50 Minutes on Section-IV.
- 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 6	+1	0
	CHEMISTRY (PART-B)	7 to 12	+1	0
	MATHEMATICS (PART-C)	13 to 18	+1	0
	BIOLOGY (PART-D)	19 to 24	+1	0
SECTION – II	PHYSICS (PART-A)	25 to 32	+3	-1
	CHEMISTRY (PART-B)	33 to 40	+3	-1
	MATHEMATICS (PART-C)	41 to 48	+3	-1
SECTION – III	PHYSICS (PART-A)	49 to 54	+3	-1
	CHEMISTRY (PART-B)	55 to 60	+3	-1
	MATHEMATICS (PART-C)	61 to 66	+3	-1
	BIOLOGY (PART-D)	67 to 72	+3	-1
SECTION – IV	PHYSICS (PART-A)	73 to 77	+3	0
	CHEMISTRY (PART-B)	78 to 82	+3	0
	MATHEMATICS (PART-C)	83 to 87	+3	0
	PHYSICS (PART-D)	88 to 90	+3	0
	CHEMISTRY (PART-E)	91 to 93	+3	0
	MATHEMATICS (PART-F)	94 to 96	+3	0

- 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.
- Blank papers, clip boards, log tables, slide rule, calculator, cellular phones, pagers and electronic devices, in any form, are not allowed.
- 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.
- See method of marking of bubbles at the back of cover page for question no. 88 to 96.

Note: Please check this Question Paper contains all 96 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 **88 to 96**

Numerical based questions single digit answer 0 to 9

Example 1:

If answer is 6.

Correct method:

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Example 2:

If answer is 2.

Correct method:

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

SAMPLE PAPER

Recommended Time: 30 Minutes for Section – I**Section – I****PHYSICS – (PART – A)**

This part contains **6 Multiple Choice Questions** number **1 to 6**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

1. The acceleration–time graph of a particle moving at uniform acceleration is a straight line _____ to the time axis
(A) parallel (B) perpendicular
(C) aligned (D) inclined
2. The slope of a displacement – time graph gives :
(A) instantaneous velocity (B) acceleration
(C) displacement (D) travelling time
3. The area under the force time curve gives
(A) momentum (B) acceleration
(C) change in momentum (D) work done
4. What is the C.G.S unit of force.
(A) Dyne (B) Newton
(C) Joule (D) Watt
5. A body's weight is 600 N. If $g = 10 \text{ ms}^{-2}$, the body's weight in kgf is
(A) 600 (B) 30
(C) 60 (D) 300
6. Area under an acceleration – time graph gives :
(A) average velocity (B) instantaneous velocity
(C) uniform velocity (D) change in velocity

Space for Rough Work

CHEMISTRY – (PART – B)

This part contains **6 Multiple Choice Questions** number **7 to 12**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

7. The boiling points of water, ethyl alcohol & diethyl ether are 100°C , 78.5°C & 34.6°C respectively. The intermolecular forces will be in the order of :
(A) Water > ethyl alcohol > diethyl ether
(B) Ethyl alcohol > water > diethyl ether
(C) Diethyl ether > ethyl alcohol > water
(D) Diethyl ether > water > ethyl alcohol
8. Foam is a type of colloid in which the dispersion medium and the dispersed phase are respectively :
(A) Solid and solid
(B) Solid and liquid
(C) Liquid and solid
(D) Liquid and gas
9. The non-sublimable substance among the following is :
(A) NH_4Cl
(B) Dry ice
(C) I_2
(D) CCl_4
10. The movement of colloidal particles towards one of the electrodes under the influence of an electric field is :
(A) Electrolysis
(B) Anodizing
(C) Catenisation
(D) Electrophoresis
11. A 0.01% (by mass) solution of sodium chloride is prepared. Which of the following represent the correct composition?
(A) 1.0 g of NaCl + 100 g of water
(B) 0.10 g of NaCl + 100 g of water
(C) 0.01 g of NaCl + 99.99 g of water
(D) 0.10 g of NaCl + 99.90 g of water
12. Rate of diffusion of a gas is:
(A) Directly proportional to its density
(B) Directly proportional to its molecular mass
(C) Directly proportional to the square of its molecular mass
(D) Inversely proportional to the square root of its molecular mass

Space for Rough Work

MATHEMATICS – (PART – C)

This part contains **6 Multiple Choice Questions** number **13 to 18**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

13. The point of intersection of the angle bisectors of the vertices of a triangle is known as
(A) incentre (B) circumcentre
(C) orthocenter (D) centroid
14. The sides of a triangular plot are in the ratio 3 : 5 : 7 and its perimeter is 300 cm. Find the area of triangle.
(A) $500\sqrt{3}$ cm² (B) $7500\sqrt{3}$ cm²
(C) $4500\sqrt{3}$ cm² (D) $1500\sqrt{3}$ cm²
15. If $\triangle ABC \cong \triangle LKM$, then which side of $\triangle LKM$ is equal to side AC of $\triangle ABC$?
(A) LK (B) LM
(C) KM (D) None of these
16. The square of distance between (1, -1) and (2, 3) is
(A) 5 (B) 10
(C) 17 (D) 13
17. The lines $x = 7$ and $y = -9$ intersect at point
(A) (0, 0) (B) (-7, 9)
(C) (-9, 7) (D) (7, -9)
18. If y – axis works as a mirror then the image of point (5, 2) is
(A) (-5, -2) (B) (5, -2)
(C) (-5, 2) (D) None of these

Space for Rough Work

BIOLOGY – (PART – D)

This part contains 6 Multiple Choice Questions number 19 to 24. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

19. Jersey cows are preferred over local breeds as they:
(A) have resistance to disease (B) need less food
(C) need less maintenance (D) have long lactation period
20.fixes carbon in green plants as simple sugars.
(A) Denitrification (B) Photosynthesis
(C) Carbonation (D) Bacteria
21. Synapse is:
(A) junction of two axons (B) junction of two dendrites
(C) junction of axon and dendrite (D) junction of cell bodies
22. Apart from the conduction of water, xylem also
(A) conducts organic food (B) gives mechanical strength
(C) helps in gaseous exchange (D) helps in transpiration
23. A prokaryotic cell within an eukaryotic cell is
(A) nucleus (B) ribosome
(C) chloroplast (D) ER
24. The type of plastids commonly found in the cells that are not exposed to light but helps in storage are:
(A) leucoplasts (B) chromoplasts
(C) chloroplasts (D) all plastids

Space for Rough Work

Recommended Time: 50 Minutes for Section – II**Section – II****PHYSICS – (PART – A)**

This part contains **8 Multiple Choice Questions** number **25 to 32**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

25. A car of mass 2500 kg moving with a velocity of 20 m s^{-1} is stopped in 10 s by applying brakes, so the retarding force is
(A) 4000 N (B) 5000 N
(C) 6000 N (D) 7000 N
26. If the acceleration due to gravity at a height 'h' from the surface of the earth is 96% less than its value on the surface, then h is (where R is the radius of the earth).
(A) R (B) 2R
(C) 3R (D) 4R
27. The momentum of a moving bus whose mass is constant, doubles, then its kinetic energy becomes _____.
(A) double (B) triple
(C) quadruple (D) remains constant
28. The change in momentum of a body
(A) is equal to the force applied on it
(B) is equal to the product of force applied on it and the time of application of the force
(C) Both (A) and (B) are true
(D) Both (A) and (B) are false
-

Space for Rough Work

29. A body is dropped from a height of 100 m. At what height above the ground where velocity of the body will be equal to one half of velocity when it hits the ground? (Take $g = 10 \text{ m/s}^2$)
- (A) 45 m (B) 55 m
(C) 65 m (D) 75 m
30. A body is projected vertically upwards with a velocity of 98 m/sec. What is the time for which body will remain in air ($g = 9.8 \text{ m/s}^2$):
- (A) 5 sec (B) 10 sec
(C) 15 sec (D) 20 sec
31. When a body is stationary:
- (A) there is no force acting on it.
(B) the forces acting on it are not in contact with it
(C) the combination of forces acting on it balances each other
(D) the body is in vacuum
32. An object is suspended from a spring balance in a lift. The reading is 240 N when the lift is at rest. If the spring balance reading now changes to 220N, then the lift is moving
- (A) downward with constant speed (B) downward with decreasing speed
(C) downward with increasing speed (D) upward with increasing speed

Space for Rough Work

CHEMISTRY – (PART – B)

This part contains **8 Multiple Choice Questions** number **33 to 40**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

33. Two chemical species X & Y combine together to form a product P which contains both X & Y. $X + Y \rightarrow P$. X and Y cannot be broken down into simpler substances by simple chemical reactions. Which of the following (concerning the species X, Y and P) are correct?
(i) P is a compound (ii) X and Y are compounds
(iii) X & Y are elements (iv) P has a fixed composition
(A) (i), (ii) & (iii) (B) (i), (ii) & (iv)
(C) (ii), (iii) & (iv) (D) (i), (iii) and (iv)
34. Aqueous urea solution is 20% by mass of solution. Calculate percentage by mass of solvent :
(A) 75% (B) 15%
(C) 25% (D) 65%
35. How much heat is required to raise the temperature of 0.15 kg of water from 20°C to 35°C?
(A) 22.5 kJ (B) 9.45 kJ
(C) 15.2 kJ (D) 20 kJ
36. Assertion : A lighter gas diffuses more rapidly than a heavier gas.
Reason : At a given temperature, the rate of diffusion of a gas is inversely proportional to the square root of its molecular mass.
(A) If both A & R are correct and R is the correct explanation of A.
(B) If both A & R are correct but R is not the correct explanation of A.
(C) If A is correct but R is incorrect.
(D) If A is incorrect but R is correct.

Space for Rough Work

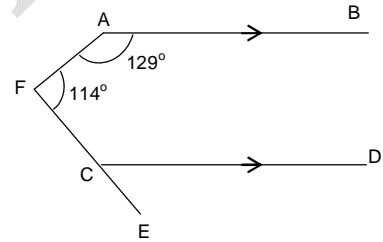
37. Solids usually :
- (A) Expand large amounts when the temperature rises
 - (B) Change shape easily
 - (C) Have a low density
 - (D) None of the above
38. Solutions which distil without any change in composition or temperature, are called :
- (A) Saturated
 - (B) Supersaturated
 - (C) Ideal
 - (D) Azeotrope
39. Calculate the mass of cane sugar required to prepare 250 g of 25% cane sugar solution
- (A) 62.5 g
 - (B) 70.5 g
 - (C) 187.5 g
 - (D) 18.75 g
40. The melting point temperature of the solid state of a substance is 40°C . The freezing point temperature of the liquid state of the same substance will be :
- (A) 35°C
 - (B) 40°C
 - (C) 45°C
 - (D) Can't predict

Space for Rough Work

MATHEMATICS – (PART – C)

This part contains **8 Multiple Choice Questions** number **41 to 48**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

41. If all the three medians of a triangle are equal, then the triangle is
 (A) equilateral triangle (B) isosceles triangle
 (C) scalene acute triangle (D) right angled triangle
42. Find the area of quadrilateral ABCD if AB = 3 cm, BC = 4 cm, CD = 4 cm, DA = 5 cm and AC = 5 cm
 (A) $2(3 + \sqrt{21})\text{cm}^2$ (B) $2(3 + \sqrt{27})\text{cm}^2$
 (C) $2\sqrt{21}\text{cm}^2$ (D) $3\sqrt{27}\text{cm}^2$
43. Length of an altitude of an equilateral triangle of side '2a' cm is
 (A) 3a cm (B) $\sqrt{3}a$ cm
 (C) $\frac{\sqrt{3}a}{2}$ cm (D) $2\sqrt{3}a$ cm
44. AB, CD are parallel. The angle ECD is equal to
 (A) 52° (B) 88°
 (C) 44° (D) 63°



45. The coefficient of x^2 in $(3x + x^3)\left(x + \frac{1}{x}\right)$ is
 (A) 3 (B) 1
 (C) 4 (D) 2

Space for Rough Work

46. Converting $1.\overline{345}$ into a fraction, we get

(A) $\frac{1345}{900}$

(B) $\frac{1332}{990}$

(C) $\frac{1345}{990}$

(D) $\frac{1332}{900}$

47. If consecutive angles of a parallelogram are in the ratio of 4 : 5, then their measures are:

(A) 80° and 100°

(B) 60° and 120°

(C) 40° and 50°

(D) 20° and 25°

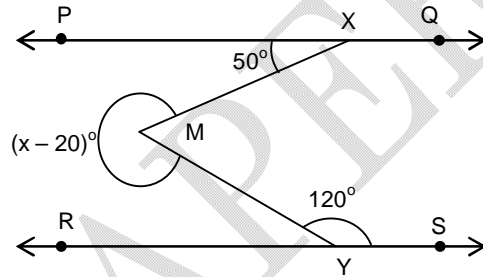
48. In figure, if $PQ \parallel RS$ and $\angle MXP = 50^\circ$ and $\angle MYS = 120^\circ$, find the value of x .

(A) 240°

(B) 225°

(C) 270°

(D) 315°



Space for Rough Work

Recommended Time: 50 Minutes for Section – III

Section – III

PHYSICS – (PART – A)

This part contains **6 Multiple Choice Questions** number **49 to 54**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

49. A cricket ball of mass 100 g is moving with a velocity of 10 m s^{-1} and is hit by a bat so that it returns back in opposite direction and moves with a velocity of 20 m s^{-1} . Find the force exerted by bat, if the force acts for 0.01 s.
 (A) 200 N (B) 300 N
 (C) 400 N (D) 500 N
50. If a body covers 26 m and 30 m in the 6th and 7th seconds of its motion, then the initial velocity and acceleration of the body respectively are (assuming acceleration to be uniform)
 (A) 4 m s^{-1} and 4 m s^{-2} (B) 6 m s^{-1} and 4 m s^{-2}
 (C) 10 m s^{-1} and 8 m s^{-2} (D) 0 and 4 m s^{-2}
51. When you move from equator to pole, the value of acceleration due to gravity (g)
 (A) increases (B) decreases
 (C) remains the same (D) increases then decreases
52. Two satellites S and S' revolve around the earth at distances 3R and 6R from the centre of earth. Their periods of revolution will be in the ratio:
 (A) 1 : 2 (B) 2 : 1
 (C) $1 : 2^{1.5}$ (D) $1 : 2^{0.67}$
53. The length of second's pendulum on the surface of earth is 1 m. The length of second's pendulum on the surface of moon, where value of acceleration due to gravity (g) is $(1/6)^{\text{th}}$ of its value on the surface of earth is:
 (A) $(1/6) \text{ m}$ (B) 6 m
 (C) $(1/36) \text{ m}$ (D) 36 m
54. The time period of second's pendulum is 2 sec. The spherical bob which is empty from inside has a mass of 50 g. This is now replaced by another solid bob of same radius but having a different mass of 100 g. The new time period will be
 (A) 4 sec (B) 1 sec
 (C) 2 sec (D) 8 sec

Space for Rough Work

CHEMISTRY – (PART – B)

This part contains **6 Multiple Choice Questions** number **55 to 60**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

55. The temperature of 20 litre of nitrogen was increased from 100K to 300K at a constant pressure. Change in volume will be:
(A) 80 litre (B) 60 litre
(C) 40 litre (D) 20 litre
56. Ice cubes on hill top, melt at :
(A) Less than 0°C (B) Greater than 0°C
(C) At 0°C (D) Can't say
57. With the increasing molecular mass of a liquid, the viscosity:
(A) Decreases (B) Increases
(C) Remains same (D) None of these
58. The kinetic energy of a gas molecule is zero at :
(A) 0°C (B) 273°C
(C) -273°C (D) 116°C
59. Choose the correct option :
Statement I – Chlorine is added in high storage tanks during supply of drinking water in city.
Statement II – chlorine is added to water to kill germs present in water.
(A) Statement I is true and statement II is correct explanation of statement I.
(B) Statement I is false but statement II is correct explanation of statement I.
(C) Statement I is true but statement II is false.
(D) Both Statement I and II are false.
60. The salt that forms a suspension with water is :
(A) BaSO₄ (B) CuSO₄
(C) MgCl₂ (D) NaCl

Space for Rough Work

MATHEMATICS – (PART – C)

This part contains **6 Multiple Choice Questions** number **61 to 66**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

61. If $(2x + 17)^\circ$, $(x + 4)^\circ$ are complementary, find x:
(A) 63° (B) 53°
(C) 35° (D) 23°
62. An angle is 30° more than one half of its complement. Find the angle in degree:
(A) 60° (B) 50°
(C) 45° (D) 80°
63. The measure of an angle, if six times its complement is 12° less than twice its supplement, is:
(A) 58° (B) 48°
(C) 38° (D) 78°
64. The lengths of the three sides of a triangular field are 40m, 24m and 32m respectively. The area of the triangle is
(A) 480 m^2 (B) 320 m^2
(C) 384 m^2 (D) 360 m^2
65. Internal bisectors of angles $\angle B$ and $\angle C$ of a triangle ABC meet at O. If $\angle BAC = 80^\circ$, then the value of $\angle BOC$ is
(A) 120° (B) 140°
(C) 110° (D) 130°
66. The ortho centre of a right angled triangle lies
(A) outside the triangle (B) at the right angular vertex
(C) on its hypotenuse (D) within the triangle

Space for Rough Work

BIOLOGY – (PART – D)

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. Growing two or more crops simultaneously in the same land is called:
(A) intra cropping (B) mixed farming
(C) mixed cropping (D) ultra cropping
68. Hybrid is
(A) homozygous dominant (B) homozygous recessive
(C) heterozygous (D) mutant
69. Bacterium drives thecycle.
(A) carbon (B) nitrogen
(C) oxygen (D) energy
70. What compounds are identified as contributing to acid rain?
(A) Carbon dioxide (B) Sulphur and nitrogen oxides
(C) Mercury oxides (D) Phosphates
71. The most common connective tissue is:
(A) adipose tissue (B) reticular tissue
(C) fibrous tissue (D) areolar tissue
72. Rudolf Virchow stated that:
(A) cells arise from pre-existing cells
(B) cells are grouped into tissues
(C) cells are the structural and functional units
(D) cellular activities are regulated by the nucleus

Space for Rough Work

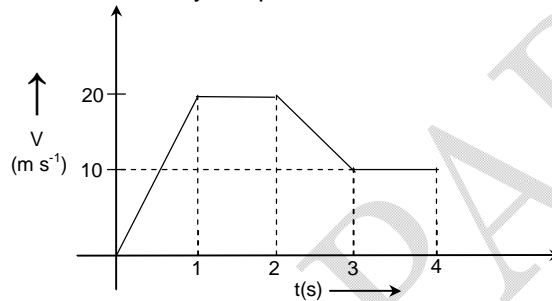
Recommended Time: 50 Minutes for Section – IV

Section – IV

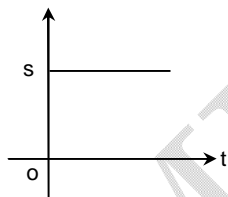
PHYSICS – (PART – A)

This part contains **5 Multiple Choice Questions** number **73 to 77**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

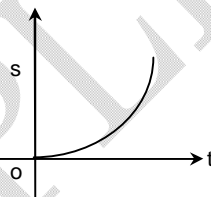
73. The variation of the velocity of a particle moving along a straight line is illustrated in the graph given below. The distance covered by the particle in 4 second is.



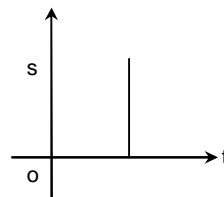
- (A) 20 m
(B) 35 m
(C) 40 m
(D) 55 m
74. Which of the following displacement time graph given below is impossible?



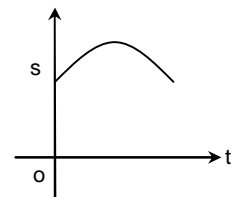
(A)



(B)



(C)



(D)

Space for Rough Work

75. A block of mass 2 kg is placed on the floor. The coefficient of static friction between the two surfaces is 0.4. A force of 2.5 newton is applied on the block as shown. The force of friction acting between the block and the floor is ($g = 10 \text{ m/s}^2$)



- (A) 7.84 N (B) 2.50 N
(C) 6.45 N (D) 13.34 N
76. A body moves along a straight line with acceleration 3 m/sec^2 for 2 seconds and then with acceleration 4 m/sec^2 for 3 sec. What is the average acceleration.
(A) 3.4 m/sec^2 (B) 3.5 m/sec^2
(C) 3.6 m/sec^2 (D) 3.7 m/sec^2
77. A particle starts sliding down a frictionless inclined plane. If S_n is the distance traveled by it from time $t = (n - 1)$ to $t = n$ seconds. The ratio S_n/S_{n+1} is
(A) $\frac{2n-1}{2n+1}$ (B) $\frac{2n+1}{2n}$
(C) $\frac{2n}{2n+1}$ (D) $\frac{2n+1}{2n-1}$

Space for Rough Work

CHEMISTRY – (PART – B)

This part contains 5 Multiple Choice Questions number 78 to 82. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

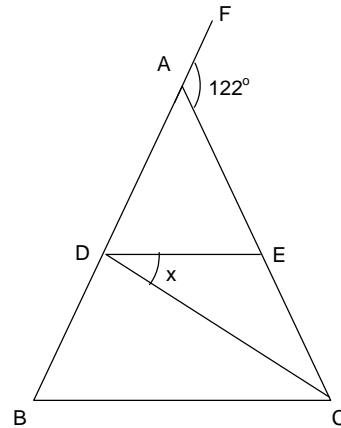
78. A student heats solid hydrated copper sulphate in a dry test tube and reports the following observations. The observation which is correctly noticed is :
(A) It breaks with crackling sound
(B) A reddish brown gas is evolved
(C) Water droplets collect in the cooler parts of the test tube
(D) Difference in viscosity
79. Which of the following will exhibit Tyndall effect?
(A) Copper sulphate solution
(B) Starch solution
(C) Egg albumin in water
(D) Both (B) & (C)
80. If a gas is allowed to expand at constant temperature, then:
(A) Number of molecules of the gas decreases
(B) The kinetic energy of the gas molecules decreases
(C) The kinetic energy of the gas molecules increases
(D) The kinetic energy of the gas molecules remains the same
81. Heating of water in any physical state increases :
(A) Kinetic energy
(B) Effective collisions
(C) Vibrations
(D) All
82. What is usually the total charge of a plasma state?
(A) Positive
(B) Negative
(C) Neutral
(D) None of these

Space for Rough Work

MATHEMATICS – (PART – C)

This part contains 5 Multiple Choice Questions number 83 to 87. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

83. If $x = 7 + 4\sqrt{3}$, $y = 7 - 4\sqrt{3}$, Then $\frac{1}{x} + \frac{1}{y} =$
- (A) 11 (B) 14
(C) 8 (D) $8\sqrt{3}$
84. ABC is an equilateral triangle. P and Q are two points on \overline{AB} and \overline{AC} respectively such that $\overline{PQ} \parallel \overline{BC}$. If $\overline{PQ} = 5\text{cm}$ then area of $\triangle APQ$ is:
- (A) $\frac{25}{4}$ sq.cm (B) $\frac{25}{\sqrt{3}}$ sq. cm
(C) $\frac{25\sqrt{3}}{4}$ sq. cm (D) $25\sqrt{3}$ sq. cm
85. In a $\triangle PQR$, PS is bisector of $\angle P$ such that S lies on QR and $\angle Q = 70^\circ$ and $\angle R = 30^\circ$, then:
- (A) $QS > PQ > PR$ (B) $QS < PQ < PR$
(C) $PQ > QS > SR$ (D) $PQ < QS < SR$
86. There are two positive integers X and Y. When X is divided by 237, the remainder is 192. When Y is divided by 117, the quotient is same but the remainder is 108. The remainder when the sum of X and Y is divided by 118 is
- (A) 58 (B) 64
(C) 70 (D) cannot say
87. In the given figure, $AB = AC$, $BC = CD$ and $DE \parallel BC$, $\angle FAE = 122^\circ$. Find the measure of x.
- (A) 62°
(B) 29°
(C) 58°
(D) 74°



Space for Rough Work

PHYSICS – (PART – D)

This part contains 3 Numerical Based Questions number 88 to 90. Each question has Single Digit Answer 0 to 9.

88. What is the speed (in m/sec) with which a stone is projected vertically upwards from the ground if it attains a maximum height of 3.2 m? ($g = 10 \text{ m/s}^2$)
89. A ball takes t second to fall from a height h_1 and $2t$ second to fall from a height h_2 then what is the ratio of h_2/h_1 .
90. Three uniform spheres each having a mass M and radius 'a' are kept in such a way that each touch the other two. The magnitude of the gravitational force on any of the spheres due to the other two is found to be $\frac{\sqrt{3}GM^2}{Ka^2}$. Find the value of K .
-

Space for Rough Work

SAMPLE PAPER

CHEMISTRY – (PART – E)

This part contains 3 Numerical Based Questions number 91 to 93. Each question has Single Digit Answer 0 to 9.

91. The number of sublimable substances among the following is :
Sodium chloride, Potassium chloride, Ammonium chloride, Phosphorus, Sulphur, Iodine, ammonia, ice
92. What will be the value of 41°F, in °C?
93. Identify the number of physical properties from the following :
Corrosion, Fluidity, Rancidity, Ductility, Reactivity, Solubility
-

Space for Rough Work

SAMPLE PAPER

MATHEMATICS – (PART – F)

This part contains 3 Numerical Based Questions number 94 to 96. Each question has **Single Digit Answer 0 to 9**.

94. If the two sides of a triangle are 8 cm and 3 cm, then what can be the smallest integral value of the third side.
95. If A(1, 5), B(2, 0) and C(6, 2) are the vertices of $\triangle ABC$, find the length of median through A.
96. Find the number of real values of x for which $|x - 3| + (x - 3)^2 + \sqrt{x - 3} + |x + 3| = 0$.
-

Space for Rough Work

SAMPLE PAPER

FIITJEE SAMPLE PAPER – 2019

(Big Bang Edge Test / Talent Recognition Exam)

for students presently in

Class 9 (Paper 2)

ANSWERS

1.	A	2.	A	3.	C	4.	A
5.	C	6.	D	7.	A	8.	D
9.	D	10.	D	11.	C	12.	D
13.	A	14.	D	15.	B	16.	C
17.	D	18.	C	19.	D	20.	B
21.	C	22.	B	23.	C	24.	A
25.	B	26.	D	27.	C	28.	B
29.	D	30.	D	31.	C	32.	C
33.	D	34.	C	35.	B	36.	A
37.	D	38.	D	39.	A	40.	B
41.	A	42.	A	43.	B	44.	D
45.	C	46.	B	47.	A	48.	C
49.	B	50.	A	51.	A	52.	C
53.	A	54.	C	55.	C	56.	B
57.	B	58.	C	59.	A	60.	A
61.	D	62.	B	63.	B	64.	C
65.	D	66.	B	67.	C	68.	C
69.	B	70.	B	71.	D	72.	A
73.	D	74.	C	75.	B	76.	C
77.	A	78.	C	79.	D	80.	D
81.	D	82.	C	83.	B	84.	C
85.	B	86.	B	87.	C	88.	8
89.	4	90.	4	91.	2	92.	5
93.	3	94.	6	95.	5	96.	0