

FIITJEE ADMISSION TEST- 2019

for students of

Class 9

Paper 2

Time: 3 Hours (1:45 pm – 4:45 pm)

Code	9009
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Maximum Marks: 240

Instructions:

Caution: Class, Paper, Code as given above MUST be correctly marked on the answer OMR sheet before attempting the paper. Wrong Class, Paper or Code will give wrong results.

1. You are advised to devote 30 Minutes on Section-I, 50 Minutes on Section-II, 50 Minutes on Section-III and 50 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 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

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.
6. 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

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. Echo is a phenomenon of :
 (A) reflection of sound
 (B) interference of sound
 (C) refraction of sound
 (D) diffraction (bending) of sound

2. A water tanker filled up to $\frac{2}{3}$ of its height is moving with a uniform speed. On sudden application of the brake, the water in the tank would
 (A) move backward
 (B) move forward
 (C) be unaffected
 (D) rise upwards

3. Under the action of force F , a body is moving with a uniform acceleration of 5 m/s^2 . The force required to produce a retardation of 10 m/s^2 is
 (A) $-F$
 (B) $-2F$
 (C) $2F$
 (D) none of these

4. Which of the following statements is correct?
 (A) Both sound waves and light waves are transverse.
 (B) Both sound waves and light waves are longitudinal.
 (C) Sound waves are longitudinal and light waves are transverse.
 (D) Sound waves are transverse and light waves are longitudinal.

5. If two liquids of same mass but densities ρ_1 and ρ_2 respectively are mixed, then the density of the mixture is :
 (A) $\rho = \frac{\rho_1 + \rho_2}{2}$
 (B) $\rho = \frac{\rho_1 + \rho_2}{2\rho_1\rho_2}$
 (C) $\rho = \frac{2\rho_1\rho_2}{\rho_1 + \rho_2}$
 (D) $\rho = \frac{\rho_1\rho_2}{\rho_1 + \rho_2}$

6. If a ladder weighing 250 N is placed against a smooth vertical wall having coefficient of friction of 0.3 between it and floor, then what is the maximum force of friction available at the point of contact between the ladder and the floor?
 (A) 75 N
 (B) 50 N
 (C) 35 N
 (D) 25 N

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. At what temperature range petrol is obtained from petroleum?
(A) $0^{\circ}\text{C} - 40^{\circ}\text{C}$ (B) $40^{\circ}\text{C} - 170^{\circ}\text{C}$
(C) $170^{\circ}\text{C} - 250^{\circ}\text{C}$ (D) $250^{\circ}\text{C} - 350^{\circ}\text{C}$
8. Calcination is the process of heating the ore
(A) in a blast furnace (B) in absence of air
(C) in presence of air (D) none of these
9. Polypropylene is **NOT** used in
(A) clothes (B) gloves used by surgeons
(C) heat resistant plastics (D) ropes and fishing nets
10. Which of the following is an amphoteric oxide?
(A) MgO (B) ZnO
(C) Al_2O_3 (D) Both (B) and (C)
11. In elastomers the intermolecular forces are
(A) nil (B) weak
(C) strong (D) very strong
12. Compounds obtained from coal tar is
(A) Benzene, Toluene, Phenol (B) CO_2 , CH_4 & NH_3
(C) Fibers, Pesticides (D) None of these

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 area of a convex quadrilateral ABCD, if $AC \perp BD$, $AC = 3$ cm and $BD = 8$ cm is
(A) 12 cm^2 (B) 24 cm^2
(C) 11 cm^2 (D) none of these
14. If $x = a$, $y = b$ is the solution of the equations $x - y = 2$ and $x + y = 4$, then the values of a and b are, respectively
(A) 3 and 5 (B) 5 and 3
(C) 3 and 1 (D) -1 and -3
15. Four – fifth of a number is 10 more than two – third of the number. What is three – fifth of that number?
(A) 90 (B) 75
(C) 60 (D) 45
16. If 'a' is six times as large as 'b' then by what percent 'b' is less than 'a'?
(A) $16\frac{2}{3}\%$ (B) 60%
(C) $83\frac{1}{3}\%$ (D) 90%
17. Find the mean of following data: $1^2, 2^2, 3^2, \dots, 20^2$
(A) 132.5 (B) 140
(C) 143.5 (D) 148
18. If $4^{44} + 4^{44} + 4^{44} + 4^{44} = 4^x$ then x is
(A) 45 (B) 44
(C) 176 (D) 11

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. Illegal hunting of animals is called
(A) Restoration (B) Poaching
(C) Migration (D) none of these
20. Compost includes:
(A) Vegetable waste (B) Fruit peels
(C) Animal dung (D) All of these
21. Some farmers were seen adding a type of algae (or microorganism) to barren field to support crop growth. Which algae could they be using?
(A) Blue green algae (B) Brown algae
(C) Red algae (D) Both (B) and (C)
22. Intercropping is a system of cropping to make the maximum use of:
(A) Solar energy (B) Water resources
(C) Soil resource (D) All of the above
23. The system of irrigation where in water is supplied similar to as if it is raining–
(A) Pulley system (B) Drip system
(C) Sprinkler system (D) Lever system
24. Which leaves are used by farmers to protect their crop from weeds and insects?
(A) Peepal leaves (B) Orange leaves
(C) Neem leaves (D) Mango leaves

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.

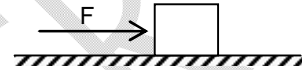
25. A body moving along a straight line is brought to rest in 2 sec by a force F_1 and in 3 sec by a force F_2 . The ratio F_1/F_2 is
(A) 2 : 3 (B) 1 : 1
(C) 3 : 2 (D) 9 : 4
26. The speed of sound waves having a frequency of 512 Hz compared with the speed of sound waves having a frequency of 256 Hz in a given medium is:
(A) half as great (B) the same
(C) twice as great (D) four times as great
27. When a loaded boat enters into sea from a river, it rises because
(A) there is more water in sea than in river.
(B) sea water is denser than river.
(C) there is difference of temperature between the sea water and the river water.
(D) sea is deeper than river.
28. An object of mass 2 kg is sliding with a constant velocity of 4 m s^{-1} on a frictionless horizontal table. The force required to keep the object moving with the same velocity is
(A) 32 N (B) Zero
(C) 2 N (D) 8 N

Space for Rough Work

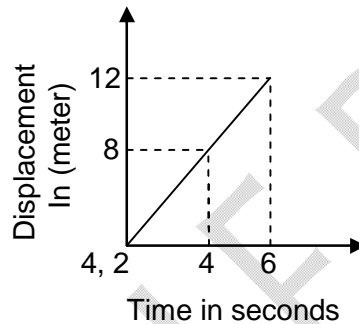
29. In case of reflection of sound waves
 (A) angle of incidence has no relationship with the angle of reflection
 (B) angle of incidence = angle of reflection
 (C) angle of incidence < angle of reflection
 (D) angle of incidence > angle of reflection

30. Relative density of a substance depends upon
 (A) mass of the substance
 (B) shape of the substance
 (C) volume of the substance
 (D) material of the substance

31. A block of mass 2 kg is kept on the floor. The coefficient of static friction is 0.4. If a force F of 2.5 N is applied on the block as shown in the figure, the frictional force between the block and the floor will be
 (A) 2.5 N
 (B) 5 N
 (C) 7.84 N
 (D) 10 N



32. Displacement-time graph of an object of mass 2 Kg is shown in figure. The force required to move the object for first four seconds is



- (A) Zero
 (B) 4 N
 (C) 8 N
 (D) None of these

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. Calamine is an ore of:
(A) Cu (B) Pb
(C) Zn (D) Al
34. The characteristics of different fibres are listed as
W: I am strong, elastic, light and burn slowly.
I shrink on heating and form hard beads with smell of burning hair.
X: I burn completely leaving least residue.
Y: I can be woven like silk fibres and dyed in a wide variety of colours. I burn quickly with a smell of burning paper.
Z: I do not get wrinkled easily. I burn slowly and produce black smoke.
W, X, Y and Z are respectively
(A) Terylene, rayon, cotton and nylon (B) Bakelite, nylon, rayon and cotton
(C) Melamine, PVC, nylon and rayon (D) Nylon, cotton, rayon and polyester
35. Activated charcoal is used in gas masks because
(A) it is a good adsorbent (B) it is a good reducing agent
(C) it burns without smoke (D) it is highly active
36. Which of the following elements produces basic oxide on reacting with oxygen?
(A) Chlorine (B) Sulphur
(C) Potassium (D) Phosphorus
37. Which of the following is an example of co-polymer?
(A) PVC (B) PAN
(C) PET (D) PTFE
38. Which amongst the following is **NOT** a free state of carbon?
(A) Coke (B) Charcoal
(C) Petrol (D) Graphite
39. Which of the following plant is used to obtain bio fuel?
(A) Mustard (B) Sunflower
(C) Jatropha (D) Opuntia
40. The metal that forms a self protecting film of oxide to prevent corrosion is
(A) Cu (B) Al
(C) Pt (D) Au

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. The ratio of present ages of a father and a daughter is 3: 1. After 12 years, the ratio of their ages would be 11:5. Find the present age of the Father.
 (A) 68 years (B) 64 years
 (C) 58 years (D) 54 years
42. If mean of $x_1, x_2, x_3, \dots, x_{20}$ is 25, then $\sum_{i=1}^{20} (x_i - 25) = ?$
 (A) 20 (B) 0
 (C) 25 (D) None of these
43. Which of the following is true for given below set of numbers: 2, 4, 2, 3, 5, 3, 1, 4, 3, 3
 (A) mean = mode \neq median (B) mean = median \neq mode
 (C) mode = median \neq mean (D) mean = mode = median
44. Find the value of $(x - y)^3 + (y - z)^3 + (z - x)^3$
 (A) $3(x + y + z)$ (B) $3(x - y)(y - z)(z - x)$
 (C) 0 (D) $3xyz$
45. If $x = \sqrt[3]{9\sqrt[3]{9\sqrt[3]{9}\dots\infty}}$ then find x.
 (A) $\sqrt[3]{9}$ (B) $\sqrt[3]{3}$
 (C) 0 (D) 3
46. Three numbers are in ratio 2 : 3 : 4. The sum of their cubes is 33957. Find the difference between largest and smallest number.
 (A) 14 (B) 5
 (C) 7 (D) 11
47. The value of $\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots + \frac{1}{99 \times 100}$ is
 (A) less than $\frac{99}{100}$ (B) Equal to $\frac{99}{100}$
 (C) Greater than $\frac{100}{99}$ (D) Equal to $\frac{100}{99}$
48. If n is a perfect square, then the next perfect square greater than 'n' is
 (A) $n^2 + 1$ (B) $n^2 + n$
 (C) $n + 2\sqrt{n} + 1$ (D) $2n + 1$

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 boat at anchor is rocked by the waves, such that the distance between two consecutive crests is 100 m. If the wave velocity is 20 m s^{-1} , the frequency of rocking boat is
(A) 2 Hz (B) 1 Hz
(C) 0.5 Hz (D) 0.2 Hz
50. A bullet of mass 5 g is fired from a gun weighing 5.0 kg. If the initial velocity of the bullet is 250 m s^{-1} , calculate the velocity with which the gun recoils.
(A) -0.50 m s^{-1} (B) -0.25 m s^{-1}
(C) $+0.05 \text{ m s}^{-1}$ (D) $+0.25 \text{ m s}^{-1}$
51. If the density of iron is 7900 Kg m^{-3} , then its relative density is
(A) 790 (B) 79
(C) 7.9 (D) 0.79
52. A body is accelerating in a straight line. The unbalanced force acts
(A) in the direction of motion of the body
(B) in a direction opposite to the direction of motion
(C) in a direction perpendicular to the direction of motion of the body
(D) none of these
53. A person can hear a sound of maximum frequency 20,000 Hz. If the speed of sound in air is 344 m s^{-1} , the wavelength is
(A) 0.176 m (B) 0.178 m
(C) 0.0172 m (D) 0.0176 m
54. A piston of cross-sectional area 100 cm^2 is used in a hydraulic press to exert a force of 10^7 dyne on the water. The cross sectional area of the other piston which supports an object having a mass of 2000 kg is
(A) 100 cm^2 (B) 10^9 cm^2
(C) $2 \times 10^4 \text{ cm}^2$ (D) $2 \times 10^{10} \text{ cm}^2$

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. Among cellulose, Poly Vinyl Chloride, nylon and natural rubber the polymer in which the intermolecular force of attraction is weakest is
(A) nylon (B) Poly Vinyl Chloride
(C) cellulose (D) natural rubber
56. LPG is a mixture of
(A) $C_6H_{12} + C_6H_6$ (B) $C_4H_{10} + C_3H_8$
(C) $C_2H_2 + C_2H_4$ (D) $CH_4 + C_2H_4$
57. Sodium reacts with cold water to form
(A) sodium hydroxide and hydrogen (B) sodium hydroxide and oxygen
(C) sodium hydride and oxygen (D) none of these
58. The order of appearance of the following with rising temperature during the refining of crude oil is
(A) kerosene oil, gasoline, diesel (B) diesel, gasoline, kerosene oil
(C) gasoline, diesel, kerosene oil (D) gasoline, kerosene oil, diesel
59. Four 'R' in 4R-principle are reduce, reuse and:
(A) recycle & recover (B) recycle and retain
(C) regain & retain (D) reform and regain
60. Which of the following is **NOT** a component of the alloy duralumin?
(A) Aluminium (B) Magnesium
(C) Copper (D) Zinc

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.

Direction (Questions 61 to 65) : Study the following graph carefully to answer the questions that follow:

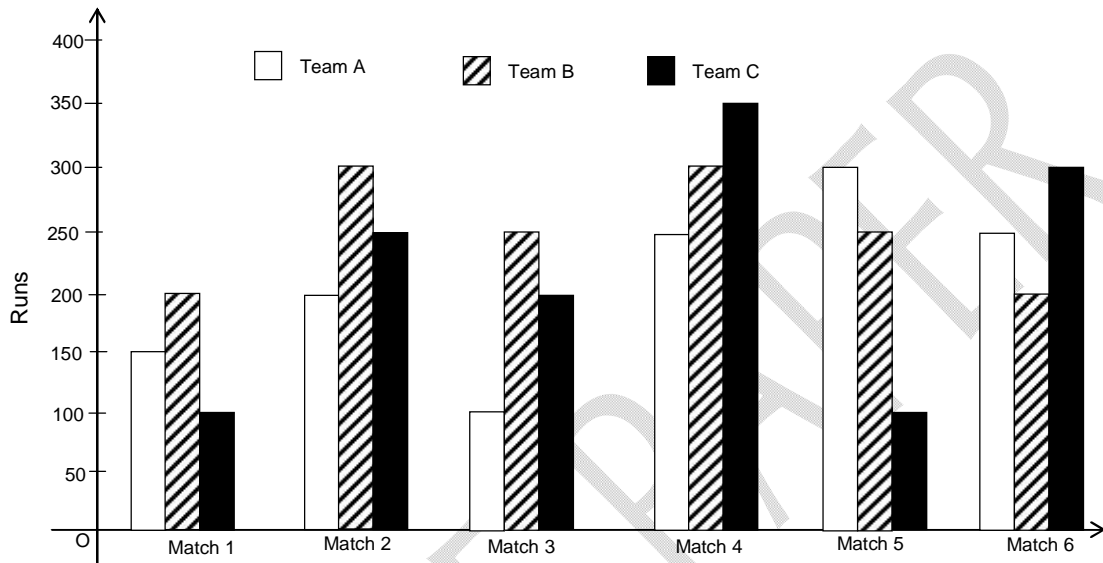


Figure: Number of the runs scored by three different teams in six different cricket matches

61. What is the percentage increase in the number of runs scored by Team B in Match 4 as compared to that in the previous match (Match 3)?
- (A) 40% (B) 30%
(C) 20% (D) None of these

Space for Rough Work

62. What is the ratio of the number of runs scored by Team A in Match 2 to the number of runs scored by Team C in Match 6?
(A) 5 : 4 (B) 2 : 5
(C) 2 : 3 (D) 3 : 4
63. What is the average number of runs scored by Team B in all the matches together?
(A) 250 (B) 275
(C) 200 (D) 300
64. The number of runs scored by all the teams together in Match 3 is approximately what percentage of the total runs scored by Team C in all the matches together?
(A) 37% (B) 57%
(C) 52% (D) 42%
65. In which match is the total runs scored by all the teams together the second highest?
(A) Match 2 only (B) Match 6 only
(C) Match 4 only (D) Both Match 2 and Match 6
66. Triangle ABC is right angled at A. AD is perpendicular to BC. If AB = 5cm and AC = 12 cm, then length of AD is
(A) 4.5 cm (B) 5 cm
(C) 5.5 cm (D) 4.6 cm

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. In an anaerobic (without oxygen) environment, on adding yeast, sugar in dough is converted into –
 (A) Glucose (B) Carbon tetra chloride
 (C) Alcohol (D) Carbon monoxide
68. Match the **Column I** with respect to **Column II**.
- | Column - I | | Column - II | |
|------------|---------------|-------------|-----------|
| (P) | Vibrio | (1) | Algae |
| (Q) | Penicillium | (2) | Bacteria |
| (R) | Chlamydomonas | (3) | Protozoan |
| (S) | Amoeba | (4) | Fungi |
- (A) P → 2; Q → 4; R → 1; S → 3
 (B) P → 1; Q → 4; R → 2; S → 3
 (C) P → 2; Q → 3; R → 1; S → 4
 (D) P → 2; Q → 4; R → 3; S → 1
69. Which of the following act as disease carrier?
 (A) Female *Anopheles* mosquito (B) Male *Anopheles* mosquito
 (C) Female *Aedes* mosquito (D) Both (A) & (C)
70. Name the first Reserve forest of India?
 (A) Satpura National Park (B) Kaziranga National Park
 (C) Guindy National Park (D) Bannerghatta National Park
71. Organic farming is the technique of raising crops through use of:
 (A) Compost (B) Biofertilizers
 (C) Green manure (D) All of these
72. Large areas of protected land for conservation of wild life, plant and animal resources and traditional life of the tribals living in the area. The above statement is the feature of which of the following protected area.
 (A) Sanctuary (B) National Park
 (C) Biosphere Reserve (D) None of these

Space for Rough Work

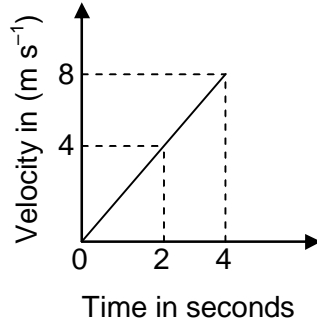
Recommended Time: 50 Minutes for Section – IV**Section – IV****PHYSICS – (PART – A)**

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. An echo is returned in 3 s. If the speed of sound is 342 m s^{-1} , then the distance between the source of sound and the reflecting body is
(A) 351 m (B) 513 m
(C) 153 m (D) none of these
74. A truck is of mass 50,000 kg. Its tyres exert a pressure of 2,500,000 Pa. The surface area of tyres in contact with ground is
(Take $g = 10 \text{ m s}^{-2}$).
(A) 2 m^2 (B) 0.2 m^2
(C) 2.5 m^2 (D) 2.75 m^2
75. A body of mass 'm' kg starts from rest and travels a distance of 's' metres in 't' seconds. The force acting on it is
(A) $\frac{2ms}{t^2} \text{ N}$ (B) $\frac{ms}{t} \text{ N}$
(C) $\frac{ms^2}{2t} \text{ N}$ (D) $\frac{ms^2}{t} \text{ N}$

Space for Rough Work

76. Velocity-time graph of an object of mass 2 kg is shown in figure. The force required to move the object for first four seconds is



- (A) 0
(B) 4 N
(C) 2 N
(D) 8 N
77. Calculate the wavelength of radio waves of frequency 10^9 Hz. The speed of radio waves is 3×10^8 m s⁻¹
- (A) 60 cm
(B) 40 cm
(C) 30 cm
(D) 10 cm

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. Which of the following is biodegradable polymer of polyamide class?
(A) Dextron (B) Nylon-2-nylon-6
(C) Nylon-6, 6 (D) PHBV
79. What can you say about the boiling points of liquids that collect at the bottom as residue in fractional distillation?
(A) Their boiling points must be very low
(B) Their boiling points must be much higher
(C) Their temperature is equal to the temperature of column
(D) None of the above
80. The green layer developed on copper on exposure to air is due to
(A) copper carbonate layer (B) basic copper carbonate layer
(C) copper sulphate layer (D) copper nitrate layer
81. Coke is starting material for the preparation of
(A) Acetylene, Acetic acid (B) Plastics (PVC)
(C) Water gas (D) All of these
82. Match the column.
- | Column – I | Column – II |
|---------------|-----------------------------|
| 1. Neoprene | p. Addition copolymer |
| 2. Buna-S | q. Condensation copolymer |
| 3. Nylon-6 | r. Addition homopolymer |
| 4. Nylon-6, 6 | s. Condensation homopolymer |
- (A) 1→s; 2→q; 3→r; 4→p
(B) 1→s; 2→r; 3→q; 4→p
(C) 1→r; 2→p; 3→s; 4→q
(D) 1→r; 2→s; 3→p; 4→q

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 $\frac{x+y}{x+y+z} = \frac{y+z}{x+y+z} = \frac{x+z}{x+y+z} = p$, then which of the following can be the value of p ?
- (A) $\frac{1}{2}$ (B) 2
(C) $\frac{2}{3}$ (D) 3
84. In a trapezium ABCD, $AB \parallel CD$ and $\angle D = 2\angle B$. If $DC = p$ and $AD = q$ then $AB =$
- (A) $p + q$ (B) $2p + p$
(C) $5p - 3q$ (D) $3p - 2q$
85. The parallel sides of a trapezium are 20 cm and 10 cm. Its non – parallel sides are both equal, each being 13 cm. Find the area of trapezium.
- (A) 390 cm^2 (B) 200 cm^2
(C) 180 cm^2 (D) 130 cm^2
86. A certain number of men went to a hotel. Each man spent as many rupees as one – fourth of the men. If the total bill paid was Rs. 20,449, then how many men visited the hotel?
- (A) 222 (B) 246
(C) 264 (D) 286
87. If $\angle A, \angle B, \angle C$ and $\angle D$ of a quadrilateral ABCD taken in order, are in the ratio 3 : 7 : 6 : 4, then ABCD is a
- (A) rhombus (B) kite
(C) trapezium (D) parallelogram

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. A block of mass 1 kg is placed on the rough floor of a lift. The coefficient of friction between the block and the floor is 0.3. When the lift falls freely, the block is pulled horizontally on the floor. What will be the force of friction (in N)?
89. The mass of an empty bucket of capacity 10 liters is 1 kg. Find its mass (in kg) when completely filled with a liquid of relative density 0.8.
90. A bullet is fired normally on an immovable wooden plank. It loses 25% of its momentum in penetrating a thickness of 3.5 cm. Find the total thickness (in cm) penetrated by the bullet.
-

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. Out of the following, number of amorphous forms of carbon is:
Graphite, Lambblack, Coke, Coal, Fullerene, Sugar Charcoal, Gas carbon, Wood charcoal, Diamond.
92. Number of non-biodegradable polymers out of the following is:
Nylon-2,6, Polythene, Nylon-6,6, Starch, Proteins.
93. Out of the following how many is/are sulphide ore(s) of metal:
Copper glance, Rock salt, Zinc blende, Iron pyrites, Cinnabar, Galena, Haematite.
-

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. Let $a, b, c \in \mathbb{R}^+$ such that $a + \frac{1}{b} = 3$, $b + \frac{1}{c} = 4$, $c + \frac{1}{a} = \frac{9}{11}$ then $abc =$

95. The value of $\sqrt{3 + 2\sqrt{2}} - \sqrt{3 - 2\sqrt{2}}$ is

96. The perimeter of a triangle is 30 cm and the circumference of its incircle is 88 cm. If the area of triangle is $30k \text{ cm}^2$ then find k

Space for Rough Work

SAMPLE PAPER

FIITJEE ADMISSION TEST

CLASS – IX ANSWERS

PAPER-2

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