

FIITJEE ADMISSION TEST- 2019

for students of

Class 8

Paper 2

Time: 3 Hours (1:45 pm – 4:45 pm)

Code	8008
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Maximum Marks: 234

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, 60 Minutes on Section-II and 60 Minutes on Section-III.
2. This Question paper consists of 3 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 15	+1.5	0
	CHEMISTRY (PART-B)	16 to 30	+1.5	0
	MATHEMATICS (PART-C)	31 to 45	+1.5	0
	BIOLOGY (PART-D)	46 to 60	+1.5	0
SECTION – II	PHYSICS (PART-A)	61 to 66	+3	-1
	CHEMISTRY (PART-B)	67 to 72	+3	-1
	MATHEMATICS (PART-C)	73 to 78	+3	-1
	BIOLOGY (PART-D)	79 to 84	+3	-1
SECTION – III	MATHEMATICS (PART-A)	85 to 96	+3	0
	MATHEMATICS (PART-B)	97 to 108	+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. 97 to 108.**

Note: Please check this Question Paper contains all **108** 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 **97 to 108**

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: 60 Minutes for Section – I**Section – I****PHYSICS – (PART – A)**

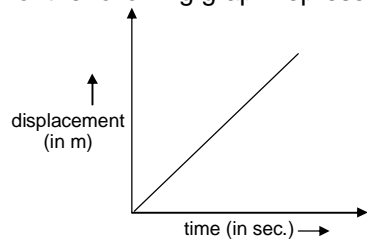
This part contains **15 Multiple Choice Questions** number **1 to 15**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

- 313 K = _____ °F (fill the correct option in the blank).
(A) 99 (B) 52
(C) 281 (D) 104
- A cyclone is called a _____ in the American Continent.
(A) Hurricane (B) Typhoon
(C) Tornado (D) Thunderstorm
- If velocity – time graph of a body is parallel to the time axis, then the body
(A) is at rest
(B) is moving with constant speed
(C) is moving with uniform non-zero acceleration
(D) None of these
- The ratio of magnitude of $\frac{\text{displacement}}{\text{distance}}$
(A) is always < 1 (B) is always = 1
(C) is always > 1 (D) may be ≤ 1
- 5 g of copper was heated from 20°C to 80°C. How much heat energy was used to heat copper?
(specific heat capacity of Copper is $0.092 \text{ cal g}^{-1}\text{C}^{-1}$)
(A) 27.6 cal (B) 0.0276 cal
(C) 29.5 cal (D) 2.76 cal

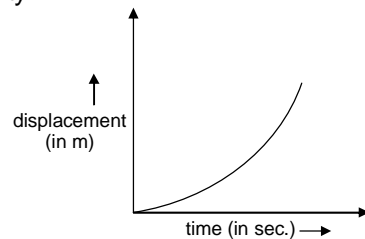
Space for Rough Work

6. Which of the following graph represents uniform velocity

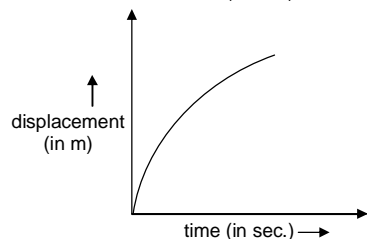
(A)



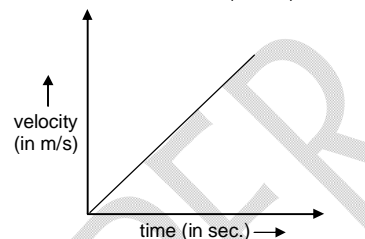
(B)



(C)



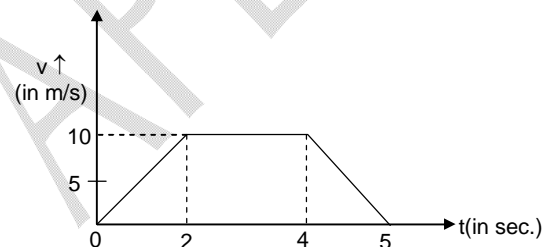
(D)



7. If a particle covers equal distances in equal time intervals, it is said to
 (A) be at rest (B) moving with uniform velocity
 (C) is moving with uniform speed (D) moving with uniform acceleration
8. $41^{\circ}\text{F} = \text{_____}^{\circ}\text{C}$ (fill the correct option in the blank).
 (A) 9 (B) 32
 (C) 5 (D) None of these
9. The value of temperature at which both Celsius and Fahrenheit scales read same
 (A) 10 degree (B) 0 degree
 (C) -10 degree (D) -40 degree
10. A car travels 30 km at a uniform speed of 40 km/h and next 30 km at a uniform speed of 20 km/h. Its average speed is
 (A) 30 km/h (B) 32 km/h
 (C) $26\frac{2}{3}$ km / h (D) $28\frac{3}{4}$ km / h

Space for Rough Work

11. A body covers the first half of total distance with a speed v and the second half in double the time taken for first half. The average speed for whole journey is
- (A) v (B) $\frac{v}{2}$
 (C) $\frac{2v}{3}$ (D) $\frac{3v}{2}$
12. How much heat is absorbed by a 20 g granite piece as energy from the sun causes its temperature to change from 10°C to 29°C (specific heat capacity of granite is $0.1 \text{ cal g}^{-1}\text{C}^{-1}$)
- (A) 19 cal (B) 38 cal
 (C) 380 cal (D) 3.8 cal
13. An athlete takes 40 second to move on a circular path of diameter 200 m. What will be his displacement after 2 minutes 20 seconds.
- (A) 100 m (B) 200 m
 (C) zero (D) 400 m
14. From the given velocity-time graph find the displacement of particle in duration from $t = 0$ to $t = 5$ sec.
- (A) 40 m
 (B) 50 m
 (C) 35 m
 (D) 75 m



15. A body goes from a point A to point B 150 m apart in 30 second and return back to A in 20 second. The average velocity of the body for whole journey (in m/s) is
- (A) Zero (B) 12.5
 (C) 6 (D) None of these

Space for Rough Work

CHEMISTRY – (PART – B)

This part contains **15 Multiple Choice Questions** number **16 to 30**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

16. Which one among the following is a wool yielding animal?
(A) Horse (B) Cow
(C) Alpaca (D) Pony
17. Which is **NOT** a natural colour of sheep hairs?
(A) Blue (B) Black
(C) Brown (D) White
18. Find the odd one out of the following?
(A) Kosa (B) Mooga
(C) Tussar (D) Pashmina
19. Which process is involved in reeling the silk?
(A) Taking out silk fibres (B) Winding the silk fibres
(C) Spinning the silk fibres (D) Making the silk fibres
20. What can be the maximum length of continuous silk fibre obtained from one cocoon?
(A) 9 m (B) 90 m
(C) 900 m (D) 9000 m
21. The natural indicator litmus is extracted from
(A) hibiscus (B) amla
(C) lichens (D) ferns
22. What is the colour of turmeric in basic solution?
(A) Yellow (B) Red
(C) Blue (D) Purple
23. Which salt is formed when ammonium hydroxide is neutralized by nitric acid?
(A) Ammonium chloride (B) Ammonium nitrate
(C) Calcium nitrate (D) Calcium chloride

Space for Rough Work

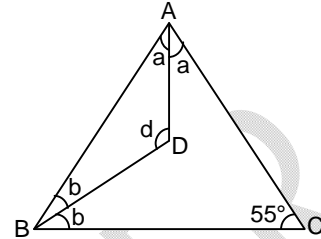
24. In which one of the household products, ammonia is found?
(A) Window cleaners (B) Toilet cleaners
(C) Dish washers (D) Detergents
25. Ant bites are treated with a solution of
(A) vinegar (B) common salt
(C) lemon juice (D) calamine
26. What type of change is rusting of iron?
(A) Useful change (B) Reversible change
(C) Chemical change (D) Fast change
27. What is baking soda chemically?
(A) Sodium carbonate (B) Sodium hydrogen carbonate
(C) Calcium carbonate (D) Calcium hydrogen carbonate
28. Ozone absorbs ultraviolet radiation of the sun and breaks down into
(A) oxygen (B) hydrogen
(C) water (D) nitrogen
29. Which acid is added to water during crystallization of copper sulphate?
(A) Nitric acid (B) Hydrochloric acid
(C) Sulphuric acid (D) Carbonic acid
30. A log of wood is cut into pieces. The wooden pieces are burnt in a bonfire. The type of changes that took place are respectively.
(A) chemical and chemical (B) physical and physical
(C) chemical and physical (D) physical and chemical

Space for Rough Work

MATHEMATICS – (PART – C)

This part contains **15 Multiple Choice Questions** number **31 to 45**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

31. What is the value of $\angle d$ in the given figure?
 (A) 107.5°
 (B) 120°
 (C) 200°
 (D) 117.5°



32. The property represented by $a \times (b + c) = a \times b + a \times c$ is
 (A) commutative property (B) associative property
 (C) distributive property (D) none of these
33. The attendance of a class of 45 boys for 10 days is given as 40, 42, 30, 35, 45, 44, 41, 38, 44 and 41 then the mean attendance of the class is
 (A) 39 (B) 40
 (C) 41 (D) 43
34. Find the value of $124 \times 4 - 3 + 118 \div 2$?
 (A) 552 (B) 496
 (C) 553 (D) -553
35. $\frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \dots + \frac{1}{9900} = ?$
 (A) $\frac{39}{100}$ (B) $\frac{49}{100}$
 (C) $\frac{59}{100}$ (D) $\frac{69}{100}$

Space for Rough Work

36. The product of two numbers is $15\frac{5}{6}$. If one of the numbers is $6\frac{2}{3}$. Find the other.
- (A) $1\frac{3}{8}$ (B) $2\frac{3}{8}$
(C) $3\frac{3}{8}$ (D) $4\frac{3}{8}$
37. If $6(2a - 1) + 8 = 14$, then what is the value of $a^{51} + a^{101} = ?$
- (A) 1 (B) 2
(C) 3 (D) 4
38. The mean of first five prime numbers is
- (A) 3 (B) 3.6
(C) 7 (D) 5.6
39. If 20 is added to four times a certain number, the result is 5 less than five times the number. Then the number is:
- (A) 10 (B) 15
(C) 20 (D) 25
40. Which number is equal to $\left(\frac{0.1}{0.01} + \frac{0.01}{0.1}\right)$?
- (A) 10.1 (B) 1.10
(C) 1.01 (D) 10.01

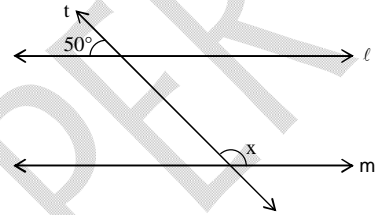
Space for Rough Work

41. A number is multiplied by 6 and 12 is added to the product. The result is 84. Then the number is
 (A) -12 (B) 72
 (C) 12 (D) -72

42. Which of the following angles is 20° less than its supplement?
 (A) 100° (B) 35°
 (C) 55° (D) 80°

43. If one angle of a triangle is 75° and the other angles are in the ratio 2 : 3. The angles are
 (A) $42^\circ, 63^\circ$ (B) $52^\circ, 53^\circ$
 (C) $45^\circ, 60^\circ$ (D) $35^\circ, 70^\circ$

44. In the given figure, it is given that $\ell \parallel m$, t is a transversal. Then the value of x is
 (A) 130°
 (B) 50°
 (C) 120°
 (D) None of these



45. The length of rectangle is 3 cm greater than its breadth. The perimeter is 46 cm then find the breadth of rectangle is
 (A) 20 cm (B) 23 cm
 (C) 10 cm (D) 13 cm

Space for Rough Work

BIOLOGY – (PART – D)

This part contains **15 Multiple Choice Questions** number **46 to 60**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

46. Which of the following is the correct matching of the site of action on the given substrate.
(A) Stomach: Carbohydrate digestion. (B) Small Intestine: Absorbs digested food.
(C) Liver: Protein digestion (D) Both (B) & (C)
47. Which of the following briefly describes the desert climate?
(A) Hot and humid (B) Cool and humid
(C) Hot and dry (D) Hot and wet
48. Which of the following animal can breathe through skin as well as through lungs?
(A) Fish (B) Mammal
(C) Cockroach (D) Frog
49. Fungus is often seen growing on the bread indicating their mode of nourishment as
(A) Herbivorous (B) Mixotrophic
(C) Chemoautotrophic (D) Saprophytic
50. When the rate of photosynthesis is equal to the rate of respiration, it is called
(A) Transpiration (B) Compensation point
(C) Transportation (D) Photosynthesis
51. Major utility of breaking food into small bits during chewing is
(A) to reduce surface area of food
(B) to increase surface area of food for enzyme action
(C) just to enjoy the taste of food
(D) none of the above
52. The rate of photosynthesis is least in
(A) Red light (B) Green light
(C) Yellow light (D) Orange light

Space for Rough Work

53. Smoking damages the lungs & can cause
(A) Cancer (B) Common cold
(C) Pneumonia (D) Scurvy
54. Exchange of gases through lungs is called
(A) Cutaneous respiration (B) Pulmonary respiration
(C) Both (A) and (B) (D) None of these
55. Find the odd one out.
(A) Nasal cavity (B) Nostrils
(C) Oesophagus (D) Trachea
56. The leaf is the food factory of the plant. Match the columns keeping this in mind:
- | Column – I | Column – II |
|--|--|
| (a) Sunlight | (i) End product |
| (b) Glucose | (ii) Raw materials |
| (c) Carbon dioxide and water | (iii) By product |
| (d) Oxygen | (iv) Power |
| (A) (a)→(ii), (b)→(i), (c)→(iv), (d)→(iii) | (B) (a)→(iv), (b)→(i), (c)→(ii), (d)→(iii) |
| (C) (a)→(iii), (b)→(ii), (c)→(iv), (d)→(i) | (D) (a)→(i), (b)→(ii), (c)→(iii), (d)→(iv) |

Space for Rough Work

57. The trunk of an elephant is a modification of the:
 (A) upper lip and nose (B) lower lip and nose
 (C) lower jaw and nose (D) none of these

58. Match the columns A and B:

Column – I		Column – II	
(A)	Equatorial	(i)	deciduous trees
(B)	Tropical	(ii)	mosses
(C)	Cool temperature	(iii)	broad – leaved evergreen trees
(D)	Polar	(iv)	cacti
(E)	Desert	(v)	conifers

(A) (A)→(iii), (B)→(i), (C)→(v), (D)→(ii), (E)→(iv)

(B) (A)→(i), (B)→(ii), (C)→(iii), (D)→(iv), (E)→(v)

(C) (A)→(iii), (B)→(ii), (C)→(i), (D)→(iv), (E)→(v)

(D) (A)→(ii), (B)→(i), (C)→(iii), (D)→(iv), (E)→(v)

59. The amount of rainfall a place gets depends on:
 (A) its closeness to the sea (B) winds
 (C) the presence of mountains (D) all of these

60. The five steps of holozoic nutrition are given, put them in the correct order:

i. Assimilation

ii. Ingestion

iii. Egestion

iv. Digestion

v. Absorption

(A) i – iv – iii – v – ii

(B) ii – v – iii – i – iv

(C) ii – iv – v – i – iii

(D) iv – i – v – ii – iii

Space for Rough Work

Recommended Time: 60 Minutes for Section – II

Section – II

PHYSICS – (PART – A)

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. An object moving along a straight line travels one third of the total distance with speed of 3 m/s, the remaining distance is covered in two equal interval of time, with a speed of 4 m/s for half the time and with 5 m/s for the other half of the time. The average speed during the motion is
 (A) 4.5 m/s (B) 6 m/s
 (C) 3.86 m/s (D) 5 m/s
62. Two thermometers A and B have ice points marked 15° and 25° and steam points marked as 75° and 125° respectively. When thermometer A measures the temperature of a bath as 60° on it, what would thermometer B read when it is used to measure the temperature of the same bath?
 (A) 60° (B) 30°
 (C) 100° (D) 50°
63. The maximum speed of a train is 70 km/h. It takes 10 hours to cover a distance of 350 km. Find the ratio of its maximum speed to its average speed.
 (A) 5 (B) 2
 (C) $\frac{1}{5}$ (D) 35
64. A boy has to go 500 m due north, 400 m due east and 200 m due south to reach his school. He takes 20 minutes to reach the school. If average velocity of boy during the walk is $\frac{x}{12}$ m/s then find value of x.
 (A) 11 (B) 3
 (C) 5 (D) None of these
65. When 400 Joule of heat is given to 100 g sample of a metal, its temperature increased by 20°C . If specific heat of metal is $n \times 50 \text{ J kg}^{-1}\text{C}^{-1}$ then find the value of n
 (A) 2 (B) 3
 (C) 5 (D) 4
66. Calculate the amount of heat required to change 100 g of ice at 0°C to steam at 100°C . Given that latent heat of fusion of ice is 80 cal g^{-1} ; specific heat of water = $1 \text{ cal g}^{-1}\text{C}^{-1}$; latent heat of vapourisation of steam = 540 cal g^{-1} .
 (A) 62 kcal (B) 64 kcal
 (C) 72 kcal (D) 10 kcal

Space for Rough Work

CHEMISTRY – (PART – B)

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

67. The element that burns with dazzling white flame is
(A) magnesium (B) sulphur
(C) chromium (D) phosphorus
68. The acid which consists of two carbon atoms in its molecule is
(A) formic acid (B) acetic acid
(C) carbonic acid (D) all the three
69. Virgin wool is obtained from
(A) rabbit (B) calf
(C) lamb (D) goat
70. Which process is **NOT** included while spinning wool?
(A) Combing (B) Rolling
(C) Straightening (D) Reeling
71. Proteins that build part of our body cells are made of
(A) amino acids (B) fatty acid
(C) inorganic acids (D) antacids
72. CNG (compressed natural gas) and LPG (liquefied petroleum gas) are the two commonly used fuels. The main constituents of these fuels are respectively.
(A) butane and methane (B) methane and butane
(C) methane and methane (D) butane and butane

Space for Rough Work

MATHEMATICS – (PART – C)

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. Solve for x: $\frac{x+2}{6} - \left[\frac{11-x}{3} - \frac{1}{4} \right] = \frac{3x-4}{12}$
- (A) $\frac{6}{11}$ (B) 10
(C) 14 (D) 11
74. If $\frac{x}{4} + \frac{1}{2} = 4$ then $x^3 - x^2 + 1 = ?$
- (A) 2549 (B) 2559
(C) 2539 (D) 2569
75. Which of the following is $\left(\frac{1}{5}\right)$ th of its complement?
- (A) 18° (B) 15°
(C) 36° (D) 75°
76. If $3(x-3) = 5(2x+1)$ then $x^5 + \frac{1}{x^5} = ?$
- (A) $-\frac{1024}{32}$ (B) $-\frac{1025}{32}$
(C) $-\frac{1026}{32}$ (D) $-\frac{1027}{32}$
77. What is the sum of 0.21, 0.22 and 0.23 ?
- (A) 0.64 (B) 0.65
(C) 0.66 (D) 0.67
78. Two complementary angles are in the ratio 7 : 8. The angles are
- (A) $30^\circ, 60^\circ$ (B) $40^\circ, 50^\circ$
(C) $42^\circ, 48^\circ$ (D) $27^\circ, 63^\circ$

Space for Rough Work

BIOLOGY – (PART – D)

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 statements are correct?
 (i) The desert plants have scale- or spine- like leaves to reduce the loss of water
 (ii) In absence of photosynthesis, life is possible on earth
 (iii) Desert plants have green stems which carry out photosynthesis
 (iv) Plants have chlorophyll in leaves which imparts yellow colour to plant
- | | | | | | | | | | |
|-----|-----|------|-------|------|-----|-----|------|-------|------|
| | (i) | (ii) | (iii) | (iv) | | (i) | (ii) | (iii) | (iv) |
| (A) | T | F | F | T | (B) | T | F | T | F |
| (C) | F | T | F | T | (D) | F | T | T | F |
80. CO₂ in the atmosphere remains relatively constant because
 (A) CO₂ is never used
 (B) CO₂ is converted to CaCO₃
 (C) Bacteria use up CO₂
 (D) CO₂ released during respiration is balanced by CO₂ used during photosynthesis
81. Sukriti went to a wildlife sanctuary where she saw dense vegetation of trees, shrubs, herbs and also a variety of animals like monkeys, birds, elephants, snakes, frogs, etc. The most likely location of this sanctuary is in the
 (A) Temperate region
 (B) Tropical region
 (C) Polar region
 (D) Coastal region
82. The cells lining the stomach walls are protected from damage by HCl because
 (A) HCl is not acidic
 (B) Cells are not affected at all by HCl, they are resistant
 (C) HCl is not present in stomach
 (D) Cells are covered with a layer of mucus.
83. If catabolic means break down of molecules and endergonic means use of energy to complete the process. Keeping this in mind, which of the following statement is not true?
 (A) Photosynthesis is a catabolic process
 (B) Respiration is a catabolic process
 (C) Photosynthesis is an endergonic process
 (D) Respiration is not an endergonic process

84. Match the following:

Column – I		Column – II	
(a)	Musk oxen	(i)	Strong sense of smell
(b)	Lion	(ii)	Polar region
(c)	Elephant	(iii)	Bharatpur, Rajasthan
(d)	Siberian crane	(iv)	Thick skin, sensitive hearing

- | | |
|--|--|
| (A) (a)→(iv), (b)→(ii), (c)→(i), (d)→(iii) | (B) (a)→(iv), (b)→(i), (c)→(ii), (d)→(iii) |
| (C) (a)→(ii), (b)→(iv), (c)→(i), (d)→(iii) | (D) (a)→(i), (b)→(iii), (c)→(iv), (d)→(ii) |

Space for Rough Work

Recommended Time: 60 Minutes for Section – III

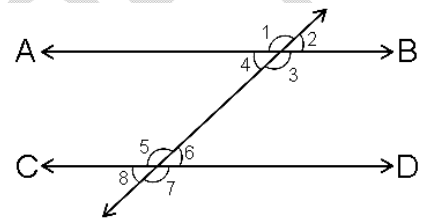
Section – III

MATHEMATICS – (PART – A)

This part contains 12 Multiple Choice Questions number 85 to 96. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

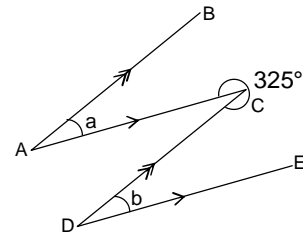
85. Find the angles of a triangle which are in the ratio 3 : 4 : 5.
 (A) $45^\circ, 60^\circ, 75^\circ$ (B) $30^\circ, 60^\circ, 90^\circ$
 (C) $35^\circ, 75^\circ, 70^\circ$ (D) None of these

86. In the given figure $AB \parallel CD$ and $\angle 2 = (3x - 10)^\circ$, $\angle 8 = (5x - 30)^\circ$, then find the value of $\angle 2$ and $\angle 8$ are
 (A) $100^\circ, 100^\circ$
 (B) $20^\circ, 20^\circ$
 (C) $40^\circ, 90^\circ$
 (D) $60^\circ, 60^\circ$



87. The sum of two angles in a triangle is 95° and their difference is 25° . Then the angles of the triangle.
 (A) $75^\circ, 50^\circ, 55^\circ$ (B) $85^\circ, 65^\circ, 30^\circ$
 (C) $50^\circ, 45^\circ, 85^\circ$ (D) $60^\circ, 35^\circ, 85^\circ$

88. In the given figure, If $AB \parallel CD$ and $AC \parallel DE$ then $\angle a + \angle b$ is equal to
 (A) 70°
 (B) 120°
 (C) 100°
 (D) 115°



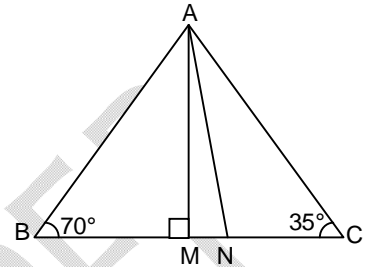
Space for Rough Work

89. If an unbiased dice thrown one time, then find the probability of getting a prime number.

- (A) $\frac{1}{2}$ (B) $\frac{1}{3}$
 (C) $\frac{1}{4}$ (D) $\frac{1}{6}$

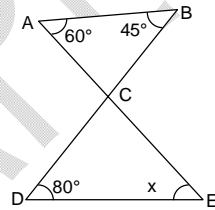
90. In the adjoining figure $AM \perp BC$ and AN is the bisector of $\angle BAC$. If $\angle B = 70^\circ$ and $\angle C = 35^\circ$ then $\angle MAN$ is.

- (A) 17.5°
 (B) 27.5°
 (C) 37.5°
 (D) 47.5°



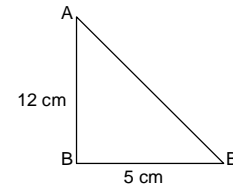
91. Find the value of x in the given figure:

- (A) 30°
 (B) 25°
 (C) 35°
 (D) 45°



92. In the right angle triangle ABC if $\angle B = 90^\circ$ then find the length of AC in given figure is

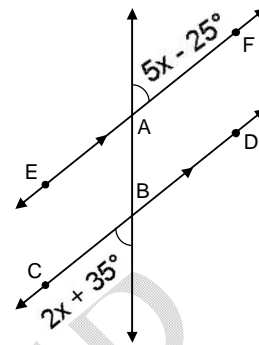
- (A) 12.5 cm
 (B) 14 cm
 (C) 15 cm
 (D) 13 cm



Space for Rough Work

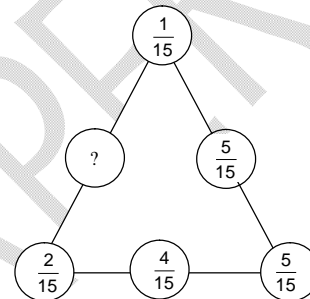
93. In the given figure $EF \parallel CD$, then find $\angle ABC$

- (A) 75° (B) 105°
 (C) 115° (D) 85°



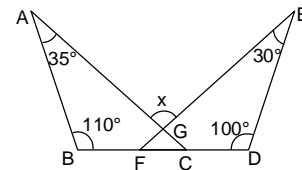
94. What should be placed in the empty space, so that the sum of the fractions on each side of the triangle is same?

- (A) $\frac{7}{15}$ (B) $\frac{9}{15}$
 (C) $\frac{6}{15}$ (D) $\frac{8}{15}$



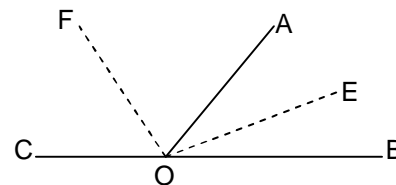
95. Find the value of x in the given diagram is

- (A) 70°
 (B) 95°
 (C) 110°
 (D) 120°



96. In the given figure OE is the angle bisector of $\angle AOB$ and OF is the angle bisector of $\angle AOC$, then the value of $\angle EOF$ is:

- (A) 90°
 (B) 180°
 (C) 270°
 (D) none of these



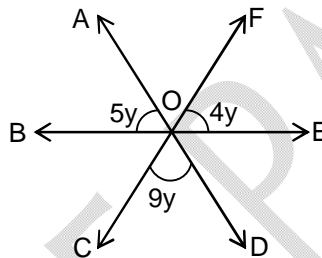
Space for Rough Work

MATHEMATICS – (PART – B)

This part contains 12 Numerical Based Questions number 97 to 108. Each question has Single Digit Answer 0 to 9.

97. If $K = 45 \div \{8 - (-2 \times 5 + 3)\}$ then $K^2 = ?$
98. The sum of two integer is -12 . If one of them is -35 , find the sum of digits of other.
99. Find the sum of the smallest positive integer and the greatest negative integer.
100. How many one-fourths need to be added to $2\frac{1}{4}$ to make 4?

101. In the given figure What is the value of $\frac{y}{10}$ (in degree)?



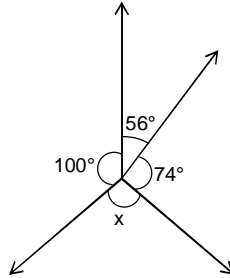
102. If the area of equilateral triangle is $3\sqrt{3} \text{ cm}^2$ then find the height of equilateral triangle.
103. How many pieces of equal size can be cut from a rope of 30 metres long, each measuring $3\frac{3}{4}$ meters?

Space for Rough Work

104. If $3\frac{1}{x} \times 3\frac{3}{4} = 12\frac{1}{2}$, then value of 'x' is:

105. A bar graph is drawn to the scale of 1 cm = r units. The length of the bar representing a quantity 208 units is 2.6 cm, then find $\frac{r}{10}$.

106. In the given figure, the value of x is $(26k^\circ)$. Find the value of k.



107. What is the value of $\left[\frac{3}{2} + \frac{5}{2} + \frac{11}{2} - \left(\frac{9}{3} + \frac{6}{3} \right) + \frac{1}{2} \right]$?

108. A man drives 3 km towards North and then 4 km towards East. How far is he away from his initial position?

Space for Rough Work

FIITJEE ADMISSION TEST

CLASS – VIII (PAPER – 2) ANSWERS

1.	D	2.	A	3.	B	4.	D
5.	A	6.	A	7.	C	8.	C
9.	D	10.	C	11.	C	12.	B
13.	B	14.	C	15.	A	16.	C
17.	A	18.	D	19.	A	20.	C
21.	C	22.	B	23.	B	24.	A
25.	D	26.	C	27.	B	28.	A
29.	C	30.	D	31.	D	32.	C
33.	B	34.	A	35.	B	36.	B
37.	B	38.	D	39.	D	40.	A
41.	C	42.	D	43.	A	44.	A
45.	C	46.	B	47.	C	48.	D
49.	D	50.	B	51.	B	52.	B
53.	A	54.	B	55.	C	56.	B
57.	A	58.	A	59.	D	60.	C
61.	C	62.	C	63.	B	64.	C
65.	D	66.	C	67.	A	68.	B
69.	C	70.	D	71.	A	72.	B
73.	D	74.	A	75.	B	76.	B
77.	C	78.	C	79.	B	80.	D
81.	B	82.	D	83.	A	84.	C
85.	A	86.	B	87.	D	88.	A
89.	A	90.	A	91.	B	92.	D
93.	B	94.	D	95.	B	96.	A
97.	9	98.	5	99.	0	100.	7
101.	1	102.	3	103.	8	104.	3
105.	8	106.	5	107.	5	108.	5