FIITJEE Talent Reward Exam

for student presently in

Class 5

Time: 3 Hours ***Maximum Marks: 194***

Instructions:

Caution: Question Paper CODE as given above MUST be correctly marked in the answer OMR sheet before attempting the paper. Wrong CODE or no CODE will give wrong results.

1. You are advised to devote 1 Hour on Section-I and 2 Hours on Section-II and Section-III.

2. This Question paper consists of 3 sections. All questions will be multiple choice single correct out of four choices with marking scheme in table below:

Section			Question no.	Marking Scheme for each question	
				correct answer	wrong answer
SECTION – I (IQ)			Q. 1 to 12	**+2**	**0**
			Q. 13 to 16	**+3**	**–1**
			Q. 17 to 20	**+6**	**0**
SECTION – II (MATHEMATICS)			Q. 21 to 23	**+6**	**–1**
			Q. 24 to 26	**+8**	**–2**
			Q. 27 to 30	**+8**	**–3**
SECTION – III (SCIENCE & MATHEMATICS)	Part –A	Physics	Q. 31 to 36	**+3**	**–1**
	Part –B	Chemistry	Q. 37 to 42	**+3**	**–1**
	Part –C	Mathematics	Q. 43 to 50	**+3**	**–1**

3. Answers have to be marked on the OMR sheet.

4. The Question Paper contains blank spaces for your rough work. No additional sheets will be provided for rough work.

5. Blank papers, clip boards, log tables, slide rule, calculator, cellular phones, pagers and electronic devices, in any form, are not allowed.

6. **Before attempting paper write your Name, Registration number** and **Test Centre** in the space provided at the bottom of this sheet.

Note:

Check all the sheets of this question paper. Please ensure the same SET is marked on header of all the sheets inside as indicated above 'Maximum Marks' of this page. In case SET marked is not the same on all pages, immediately inform the invigilator and CHANGE the Questions paper.

Registration Number : ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Name of the Candidate : _____

Test Centre : _____

Time: 1 Hour

IQ

Section –I

SECTION – I
I.Q

1. Find the next letter in the series:
E, H, K, N, Q, _____
(A) U (B) T
(C) R (D) V

2. Train is to track as bus is to _____
(A) Road (B) Driver
(C) Conductor (D) Passenger

3. Find the odd one among the following:
(A) 2 (B) 10
(C) 12 (D) 17

4. If alphabets are written in reverse order i.e. from Z to A then which letter is 8^{th} to the right of the letter which is fifth to the left of T is _____.
(A) Q (B) W
(C) O (D) P

5. In the following sequence of digits, how many digits, which are multiples of three, are immediately followed by an multiple of two.
5 7 9 8 3 1 6 7 2 3 4 8 9 5 9 2 6 6 2
(A) 4 (B) 3
(C) 2 (D) 5

6. Ashok travels 3m towards south and then turns towards left then which direction he is facing now?
(A) East (B) West
(C) South (D) North

7. 'D' is grand son of 'A'. 'C' is the mother of D. How 'C' is related to 'A' if 'A' has only one child.
(A) Daughter (B) Daughter – in – law
(C) Son (D) Either (A) or (B)

Space For Rough Work

8. In a certain code language if C = 3 and CAT = 24 then how will DOG be written in that language?
(A) 25 (B) 26
(C) 24 (D) 28

9. Find the missing character in the following diagram:

12	4	3
24	4	?
21	3	7

(A) 5 (B) 6
(C) 8 (D) 12

10. Find the next number in the series:
2, 4, 3, 9, 4, 16, 5 _____
(A) 30 (B) 24
(C) 20 (D) 25

11. Find the odd one among the following:
(A) India (B) China
(C) France (D) Sri Lanka

12. If March 1, 2000 was Wednesday then on what days of March 2000 did Sunday fall?
(A) 5, 12, 19, 26 (B) 3, 10, 17, 24, 31
(C) 6, 13, 20, 27 (D) 4, 11, 18, 25

Directions (13 – 16): Study the information below and answer the given questions.

Six persons – A, B, C, D, E, F are sitting around a circular table equidistantly. B is between C and F and is opposite to A. E is sitting to the immediate left of C.

13. Who is sitting opposite to D?
(A) A (B) B
(C) C (D) E

Space For Rough Work

14. Who is sitting between A and F?
(A) B (B) D
(C) E (D) C

15. Who is the person sitting to immediate right to B?
(A) C (B) D
(C) F (D) E

16. If 'A' interchange his place with 'C' then who is sitting opposite to 'C'?
(A) B (B) D
(C) E (D) F

Directions (17 – 18): Study the information below and answer the given questions.

Five persons – A, B, C, D and E being compared in height and arranged in ascending order. Only one person is shorter than B. One person is there between B and C. A is not the shortest or the highest.

17. Who is the third highest person?
(A) A (B) D
(C) E (D) C

18. Who is the shortest person?
(A) D (B) E
(C) C (D) Can not be determined

Directions (19 – 20): Study the information below and answer the given questions.

P, Q, R, S and T are the top five rankers in a class, not necessarily in the same order. Each of these five is of different heights. The tallest person is the fourth ranker while T is the second ranker. S is taller than at least two persons and is the third ranker. The shortest person is the first ranker, but he is not R. Q is taller than only one person and S is taller than T.

19. Who is the fourth ranker?
(A) P (B) R
(C) Q (D) S

20. How many persons are taller than P?
(A) 1 (B) 2
(C) 3 (D) 4

Space For Rough Work

Time: 2 Hours
Section –II
&
Section –III

SECTION – II
MATHEMATICS

COMPREHENSION TYPE
Passage – 1
(For questions no 21 - 23)

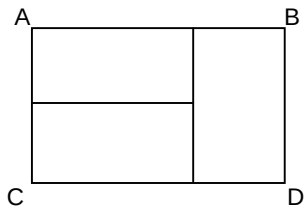
A rectangle is a quadrilateral in which each angle is 90^o and opposite sides are equal. The perimeter of rectangle is the sum of all four sides or can be calculated using formula 2x(length + breadth)

On the basis of above information, answer the following questions :

21. Find the perimeter of rectangle whose length is 38 cm and breadth is 18 cm.
(A) 94 cm (B) 112 cm
(C) 74 cm (D) 132 cm

22. The perimeter of a rectangle is 180 cm and its length is twice the breadth. Find the length of rectangle.
(A) 60 cm (B) 30 cm
(C) 50 cm (D) 40 cm

23. In the given figure ABCD is a rectangle whose length is 24 cm and perimeter is 80 cm. This rectangle is divided into three congruent (same sized) rectangles as shown. Find the perimeter of smaller rectangle.

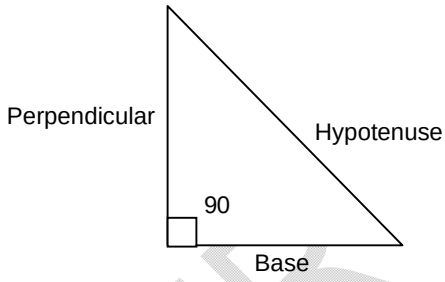


(A) $26\frac{2}{3}$ cm (B) 48 cm
(C) 36 cm (D) 28 cm

Space For Rough Work

Passage – 2
(For questions no 24 - 26)

If one of the angles of a triangle is 90^o then triangle is called right angle triangle and the side opposite to right angle vertex is called Hypotenuse. Other two sides are called perpendicular and base.
According to Pythagoras theorem, In a right angled triangle $(\text{Perpendicular})^2 + (\text{Base})^2 = (\text{Hypotenuse})^2$



On the basis of above information, answer the following questions:

24. Which of the followings can be the sides of a right angle triangle?
(A) 10, 15, 20 (B) 7, 12, 15
(C) 5, 10, 15 (D) 15, 20, 25

25. If ABC is a triangle in which $\angle A = 90^o$, BC = 26 cm & AC = 24 cm then find length of AB
(A) 8 cm (B) 10 cm
(C) 12 cm (D) 14 cm

26. What is the length of side of a rhombus whose diagonals are 48 cm and 36 cm.
(A) 26 cm (B) 28 cm
(C) 30 cm (D) 32 cm

Passage – 3
(For questions no 27 - 30)

Following are the divisibility tests to check the divisibility of a number by 3, 5 and 11.
(i) Divisibility by 3 :- A number is divisible by 3 when sum of its digits is divisible by 3.
(ii) Divisibility by 5:- A number is divisible by 5 when its unit place digit is 0 or 5.
(iii) Divisibility by 11:- A number is divisible by 11 if the difference between the sum of its digits at odd places and the sum of digits at even places is either 0 or multiple of 11.

On the basis of above information, answer the following questions:

27. Which of the following number is divisible by 11?
(A) 245642 (B) 315624
(C) 415624 (D) 236541

Space For Rough Work

28. Which of the number is divisible by both 3 and 5 but not by 11?
(A) 475475 (B) 9239307
(C) 1617525 (D) 1682835

29. Which of the following numbers is divisible by 5 but not by 3?
(A) 30000 (B) 79635
(C) 67045 (D) 9720

30. If the product $5863 \times 9y5$ is divisible by 33 (where y is a digit at tens place) then what can be the value of y?
(A) 0 (B) 1
(C) 2 (D) 3

SECTION – III
SCIENCE & MATHEMATICS

PHYSICS (PART- A)

31. Which of the following is the second planet from the sun in our solar system?
(A) Mars (B) Earth
(C) Venus (D) Mercury

32. When we place a plane at an angle to a surface, the plane is called
(A) an inclined plane (B) wedge
(C) a pulley (D) none of these

33. The pull caused by the earth is called
(A) magnetic force (B) gravitational force
(C) frictional force (D) muscular force

Space For Rough Work

34. Which of the following is a disadvantage of use of the means of transport?
(A) People can travel from one place to another fastly and hence save the time.
(B) In case of a natural calamity we can provide relief to the victims quickly.
(C) People can enjoy natural beauty and man-made things in cities by visiting different places personally.
(D) Increase in air pollution which effects our health.

35. A simple machine
(A) makes our work easier.
(B) saves our time and labour.
(C) both (A) and (B).
(D) use petrol as a fuel to power its engine.

36. Force is a push or pull which can
(A) stop a moving object.
(B) make the object move faster.
(C) change the shape of an object.
(D) all of these.

CHEMISTRY (PART- B)

37. Richter scale is used to measure the magnitude of earthquakes. This scale ranges from
(A) 1 to 10
(B) 1 to 32
(C) 1 to 100
(D) 32 to 212

38. Fossils are the remains of living things. Some of them are sources of fuels that provide energy. Which one among the following is not a fossil fuel?
(A) Coal
(B) Petroleum
(C) Natural gas
(D) Biogas

39. Different materials are used for different purposes. Choose the most appropriate materials in Column – B that match with Column – A.

Column – A		Column – B	
(i)	Chalk	(p)	Sandstone
(ii)	Floor	(q)	Limestone
(iii)	Red fort	(r)	Marble
(iv)	Taj Mahal	(s)	Granite

(A) i – q, ii – r, iii – s, iv – p
(B) i – r, ii – s, iii – p, iv – q
(C) i – q, ii – s, iii – p, iv – r
(D) i – r, ii – p, iii – s, iv – q

Space For Rough Work

40. Floods are caused by different sources. Which one among the following is not such a source?
(A) very heavy rainfall (B) melting of snow
(C) collapsing of dam (D) water logging

41. The gases that trap heat and keeps the environment warm are known as green house gases. Identify the green house gases from the following list:
(i) Oxygen (ii) Hydrogen
(iii) Nitrogen (iv) Methane
(v) Chlorine (vi) Carbon dioxide
(vii) Water vapour (viii) Sulphur dioxide
(A) i and vii (B) ii and viii
(C) iii and v (D) iv and vi

42. Water is a natural resource and it is very essential for our life. Potable water is the water that is fit for drinking. Which one of the following method(s) is not used for obtaining drinking water?
(A) Filtration (B) Boiling
(C) Distillation (D) Chlorination

MATHEMATICS (PART- C)

43. What is the angle between the minute and hour hands of a clock when time is 9 : 00 PM?
(A) Acute angle (B) Right angle
(C) Obtuse angle (D) Straight Angle

44. $\frac{1}{2}$ is what percent of $\frac{1}{3}$?
(A) 150% (B) $66\frac{2}{3}\%$
(C) $16\frac{2}{3}\%$ (D) $33\frac{1}{3}\%$

Space For Rough Work

45. Find the difference between largest and smallest fraction among: $\frac{1}{3}, \frac{4}{5}, \frac{7}{15}, \frac{5}{6}$

(A) $\frac{4}{15}$ (B) $\frac{1}{2}$

(C) $\frac{3}{4}$ (D) $\frac{3}{5}$

46. If $23.0652 = 20 + A + \frac{6}{B} + \frac{C}{200} + \frac{2}{10000}$, then find $A + B - C$

(A) 108 (B) 94

(C) 102 (D) 98

47. Anil walks along the boundary of a square park and covers a total distance of 260 m in five rounds. Find the area of Square Park.

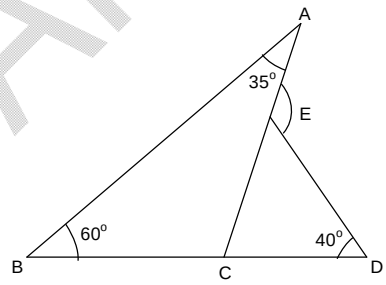
(A) 52 m^2 (B) 196 m^2

(C) 144 m^2 (D) 169m^2

48. In the given figure, find $\angle AED$

(A) 105^o (B) 115^o

(C) 125^o (D) 135^o



49. Rohan bought some toffees at 4 for Re. 1 and sold them at 2 for Re. 1. Find his profit percent.

(A) 50% (B) 75%

(C) 100% (D) 150%

50. If 45% of a number is 180 then find what percent of 200 is that number?

(A) 200% (B) 50%

(C) 150% (D) 125%

Space For Rough Work

FIITJEE Talent Reward Exam

Class 5

ANSWERS

SECTION – I
I.Q

1.	B	2.	A	3.	D	4.	A
5.	D	6.	A	7.	D	8.	B
9.	B	10.	D	11.	C	12.	A
13.	C	14.	B	15.	C	16.	A
17.	A	18.	D	19.	B	20.	D

SECTION – II
MATHEMATICS

21.	B	22.	A	23.	B	24.	D
25.	B	26.	C	27.	C	28.	C
29.	C	30.	B				

SECTION – III
SCIENCE & MATHEMATICS

31.	C	32.	A	33.	B	34.	D
35.	C	36.	D	37.	A	38.	D
39.	C	40.	D	41.	D	42.	C
43.	B	44.	A	45.	B	46.	C
47.	D	48.	D	49.	C	50.	A