MSAT – 2025
(MAHARISHI SCHOLARSHIP CUM ADMISSION TEST)
Class – 06th going to 7th
SAMPLE PAPER

FIITJEE
CHENNAI CENTRE

Disclaimer: This is a sample paper provided for practice purposes only. The level of difficulty, type of questions, and total number of questions may vary in the actual examination.

Time: 3 Hour

Maximum Marks: 155

General Instructions:

- Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.
- You are not allowed to leave the examination hall before the end of test.
- Do not keep the OMR sheet exposed to others.
- Shade the correct answers only in the OMR sheet given. Do not write or mark answers or symbols (Like ✓ , • , X …) anywhere in the questions paper.
- This booklet is your Question Paper.
- This Question Paper booklet contains 5 Sections. All Section contains Part A.

Section	Subject	Types of Questions	Number of Questions	Marking Scheme
I	MAT	Single Answer Questions	20	+1,0
II	MATHS	Single Answer Questions	15	+3,-1
III	PHYSICS	Single Answer Questions	10	+3,-1
IV	CHEMISTRY	Single Answer Questions	10	+3,-1
V	BIOLOGY	Single Answer Questions	10	+3,-1

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USEFUL DATA

PHYSICS

Acceleration due to gravity	: g = 10 m/s^2
Planck constant	: h = $6.6 \times 10^{-34}\,J-s$
Charge of electron	: e = $1.6 \times 10^{-19}\,C$
Mass of electron	: $m_e = 9.1 \times 10^{-31}\,kg$
Permittivity of free space	: $\varepsilon_0 = 8.85 \times 10^{-12}\,C^2/N-m^2$
Density of water	: $\rho_{water} = 10^3\,kg/m^3$
Atmospheric pressure	: $Pa = 10^5\,N/m^2$
Gas constant	: R = 8.314 J $K^{-1}\,mol^{-1}$

CHEMISTRY

Gas Constant	R =	8.314 J $K^{-1}mol^{-1}$
	=	0.0821 Lit atm $K^{-1}mol^{-1}$
	=	1.987 ≈ 2 Cal $K^{-1}mol^{-1}$
Avogadro's Number N_a	=	6.023×10^{23}
Planck's constant h	=	$6.625 \times 10^{-34}\,J.s$
	=	$6.625 \times 10^{-27}\,erg.s$
1 Faraday	=	96500 coulomb
1 calorie	=	4.2 joule
1 amu	=	$1.66 \times 10^{-27}\,kg$
1 eV	=	$1.6 \times 10^{-19}\,J$

Atomic No: H = 1, He = 2, Li = 3, Be = 4, B = 5, C = 6, N = 7, O = 8, F = 9, Ne = 10, Na = 11, Mg = 12, Si = 14, Al = 13, P = 15, S = 16, Cl = 17, Ar = 18, K = 19, Ca = 20, Cr = 24, Mn = 25, Fe = 26, Co = 27, Ni = 28, Cu = 29, Zn = 30, As = 33, Br = 35, Ag = 47, Sn = 50, I = 53, Xe = 54, Ba = 56, Pb = 82, U = 92.

Atomic masses: H = 1, He = 4, Li = 7, Be = 9, B = 11, C = 12, N = 14, O = 16, F = 19, Na = 23, Mg = 24, Si = 28, Al = 27, P = 31, S = 32, Cl = 35.5, K = 39, Ca = 40, Cr = 52, Mn = 55, Fe = 56, Co= 59, Ni = 58.7, Cu = 63.5, Zn = 65.4, As = 75, Br = 80, Ag = 108, Sn = 118.7, I = 127, Xe = 131, Ba = 137, Pb = 207, U = 238.

Name : _____

Registration Number : _____

MAT

Section – I

Part – A
Single Answer Questions

Direction (Q.No. 1 to 5): In each of the following questions one term is missing as shown by (?). Find the missing term.

1. 17, 18, 22, 32, 47, ?
   (A) 70   (B) 72   (C) 65   (D) 67

2. 11, 11, 33, 165, 1155, ?, 114345
   (A) 10395   (B) 16390   (C) 15395   (D) 17265

3. 1127, 1138, 1160, 1193, 1237, ?
   (A) 1345   (B) 1122   (C) 1015   (D) 1292

4. DM, HR, LW, PB, TG, ?
   (A) RP   (B) VT   (C) XL   (D) WQ

5. I, J, M, R, ?, H
   (A) Y   (B) B   (C) A   (D) Z

6. Which group of letter is different from the rest?
   (A) QRS   (B) MPS   (C) TWZ   (D) HKN

7. Choose the number which is different from the rest?
   (A) 79   (B) 103   (C) 89   (D) 91

8. Which of the following is different from the rest?
   (A) Asia   (B) India   (C) Europe   (D) Australia

Direction (Q. No. 9 to 12): The letter group in each of these questions is to be codified as per the following number codes.

Letters	C	E	M	O	N	P	S	T	V	X
Number codes	2	5	7	3	1	0	9	4	6	8

You have to find out which of the alternatives (A), (B), (C) and (D) has the correct coded from of the given letter group.

9. CEMENT
   (A) 257514   (B) 751452   (C) 525741   (D) 257145

10. POST
    (A) 9340   (B) 3940   (C) 0394   (D) 3490

11. PTVSNM
    (A) 704691   (B) 046917   (C) 406971   (D) 694071

12. XCEMPV
    (A) 825706   (B) 287560   (C) 852706   (D) 528706

Direction (Q.No.13 to 15): In each of the following questions, choose one word that CANNOT be formed from the letters of the given word.

13. EXPLANATION
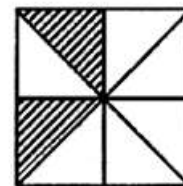   (A) PLAN   (B) NATION   (C) EXPLAIN   (D) ANIMAL

14. INTERNATIONAL
    (A) NOTE   (B) INTER   (C) LION   (D) ENTER

15. TRANSFORMATION
    (A) RAIN   (B) FORM   (C) ANSWER   (D) TRAIN

16. P and Q are brothers. R and S are sisters. Q's son is S's brother. How is P related to R?
    (A) Uncle   (B) Sister   (C) Brother   (D) Father

17. If 'Orange' is called 'Black', 'Black' is called 'White', 'White' is called 'Blue', 'Blue' is called 'Red' and 'Red' is called 'Green', then what would be the colour of human blood?
    (A) Green   (B) Blue   (C) Red   (D) Black

18. If 'Book' is called 'Pen', 'Pen is called 'Pencil', 'Pencil' is called 'Bag', 'Bag' is called 'Basket' and 'Basket' is called 'School', then which is used to carry the books?
    (A) Pen   (B) Pencil   (C) Basket   (D) School

19. L and M are sisters. N is M's mother. O is N's father. T is L's brother, then how is L related to O?
    (A) Granddaughter   (B) Grandson   (C) Daughter   (D) Father

20. In the following question four numbers are given. Out of there three are like in a certain way but rest one is different. Choose the one which is different from the rest three.
    (A) $13 \times 6 \rightarrow 87$ (B) $12 \times 9 \rightarrow 801$ (C) $15 \times 7 \rightarrow 501$ (D) $14 \times 5 \rightarrow 70$

MATHS   Section – II

Part – A
Single Answer Questions
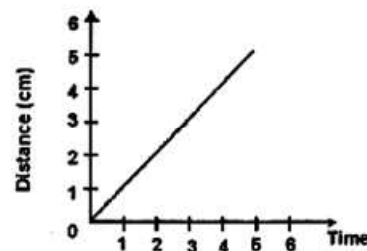
1. Which of the following pairs of integers have 5 as difference?
    (A) 10, 5   (B) – 10, + 5   (C) 15, – 20   (D) both (B) & (C)

2. The statement for "5 subtracted from thrice a number is 16" can be written as
    (A) 3(x – 5) = 16   (B) $\dfrac{x-5}{3} = 16$ (C) 3x = 16 = 5   (D) 3x – 5 = 16

3. Given that A = (5 x 3) x 3, B = 6 x (3 x 2) then A – B is
    (A) 9   (B) – 9   (C) 36   (D) 45

4. Shaded portion represents _____ of a whole.
    (A) $\dfrac{2}{8}$ (B) $\dfrac{1}{8}$

    (C) $\dfrac{3}{8}$ (D) $\dfrac{3}{4}$

5. The additive inverse of (–3xy – 5z) is
    (A) *3xy + 5z*   (B) $\dfrac{1}{-3xy-5z}$ (C) *3xy – 5z*   (D) – *3xy + 5z*

6. Thrice of a number when increased by 6 gives 24. The number is
    (A) 6   (B) 7   (C) 8   (D) 11

7. Roman numerals for 991 is
    (A) IXIXI   (B) CMXCI   (C) CMIXIX   (D) CMIIC

8. If x = 3, y = 1 then $x^x + x^y + y^x$ is equal to
    (A) 30   (B) 31   (C) 28   (D) 11

9. What do you call two fractions, whose product is 1?
    (A) additive inverse to each other   (B) multiplicative inverse to each other
    (C) only (A)   (D) both (A) and (B)

10. If $m = (-1)^{2000}$ and $n = (-1)^{2002}$, then the value of $\frac{m}{n}$
    (A) – 1   (B) 1   (C) 2000   (D) 2002

11. Krishna covers a certain distance in 150 minutes. He covers half of the distance in $\frac{4}{15}$ of the time. Find the time

    taken to cover the remaining distance.
    (A) 110 minutes   (B) 120 minutes   (C) 40 minutes   (D) 100 minutes

12. In a game, if we hit a balloon, we get 300 points and if we miss the balloon, we lose 100 points. Raj hits 15 balloons and misses 40 balloons. Find his net score.
    (A) 500   (B) 400   (C) 300   (D) 200

13. Find the missing digit such that the 161__51 is divisible by 11.
    (A) 3   (B) 4   (C) 5   (D) 0

14. 40% of 25% of $\frac{3}{4}$ th of ? = 120
    (A) 160   (B) 1750   (C) 1600   (D) 1500

15. Value of $4\frac{1}{2} \times 4\frac{1}{3} - 8\frac{1}{3} \div 5\frac{2}{3}$ is

    (A) $\frac{7}{17}$ (B) $1\frac{33}{34}$ (C) 8   (D) $18\frac{1}{34}$

PHYSICS   Section – III

Part – A
Single Answer Questions

1. Number of minutes in 5 days
    (A) 300   (B) 120   (C) 7200   (D) 7600

2. 20 grams is equivalent to
    (A) 0.2 kg   (B) 0.02 kg   (C) 0.002 kg   (D) 20,000 kg

3. What kind of motion does the distance time graph of an object represent?
    (A) Non uniform motion
    (B) Uniform motion
    (C) The object is at rest
    (D) Meaningless graph

4. The motion of a stone dropped from a roof is
    (A) Rectilinear   (B) Curvillinear   (C) Oscillatory   (D) Circular

5. Choose the correct statement
    (A) Unit of acceleration is ms^{-2} (B) Speed = distance/time
    C) If a body moves with uniform velocity its acceleration is zero (D) All the above

6. 18 km/h is same as
    (A) 18 m/s   (B) 5 m/s   (C) 10 m/s   (D) 36 m/s

7. A car travels a distance of 200 meters in 5 minutes. Then the speed of the car is
    (A) 40 m/s   (B) 2400 m/s   (C) 2400 km/h   (D) 2.4 km/h

8. To measure time in athletic events, we use a
    (A) stop watch   (B) pendulum clock
    (C) Wrist watch   (D) none of these

9. A boy goes to the market which is 750 m away in 5 minute. His speed is,
    (A) 25 m/s   (B) 150 m/s   (C) 2.5 m/s   (D) none of these

10. One decade is equal to
    (A) 100 years   (B) 10 years   (C) 1000 years   (D) none of these

CHEMISTRY   # Section – IV

Part – A
Single Answer Questions

1. Which of the following is known as universal solvent?
    (A) Water   (B) Salt water   (C) Alcohol   (D) Lime water

2. Chemical formula for rust is
    (A) $Fe_2O_3H_2O$ (B) $Fe_2O_3 5H_2O$ (C) $Fe_2O_3 \times H_2O$ (D) None of these

3. Which is a malleable substance?
    (A) Wood   (B) Stone   (C) Glass   (D) Iron

4. Which of these is an element?
    (A) Water   (B) Carbon dioxide   (C) Oxygen   (D) Ice

5. Which is not transparent?
    (A) Butter paper   (B) Water   (C) Air   (D) Glass

6. Heavy solid particles that settle at the bottom are called
    (A) Residue   (B) Sediment   (C) Decant   (D) Loading

7. Copper is a metal so it is
    (A) Good conductor of electricity   (B) Good conductor of heat
    (C) Malleable and ductile   (D) All of these

8. Which is not correct regarding winnowing method?
    (A) It is used to separate lighter particles from heavier particles
    (B) It is done with the help of water
    (C) It is done with the help of wind
    (D) It is used to separate chaff from grains

9. Which of the following us Lustrous
    (A) Paper   (B) Plastic   (C) Wood   (D) Gold

10. When no more solute dissolves in solution even with the application of heat the solution is said to be\
    (A) Unsaturated   (B) Saturated
    (C) Supersaturated   (D) Multisaturated

BIOLOGY   Section – IV

Part – A
Single Answer Questions

1. Body building material is
 (A) Fats   (B) Protein   (C) Sugar   (D) All of these

2. Which component gives bulk to the food and also known as roughage?
 (A) Protein   (B) Vitamins   (C) Minerals   (D) Fibres

3. Deficiency of which vitamin is responsible for Rickets?
 (A) Vitamin A   (B) Vitamin B   (C) Vitamin C   (D) Vitamin D

4. Which vitamin gets easily destroyed by heat during cooking?
 (A) Vitamin A   (B) Vitamin D   (C) Vitamin E   (D) Vitamin C

5. Swollen glands of neck is due to
 (A) Excess of iodine   (B) Deficiency of iodine
 (C) Excess of iron   (D) Deficiency of iron

6. Iodine solution change the colour of starch to
 (A) Blue and black   (B) Violet   (C) Oily patch   (D) Indigo

7. If the design made by vein is net like on both sides of midrib, the venation is
 (A) Reticulate venation   (B) Parallel venation
 (C) Ampho venation   (D) Bay venation

8. Plants with weak stems that cannot stand upright are called
 (A) Tendrils   (B) Creeper   (C) Stolon   (D) Herbs

9. Which one is not a part of flower?
 (A) Sepals   (B) Petals   (C) Petiole   (D) Pistil

10. Bees collect nectar from flower and convert into
 (A) Honey   (B) Oil   (C) Seed   (D) Protein

Answer key Class - 06

MAT

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

MATHS

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

PHYSICS

1. C	2. B	3. B	4. A	5. D
6. B	7. A	8. A	9.C	10.B

CHEMISTRY

1. A	2. C	3. D	4. C	5. A
6. B	7. D	8. B	9. D	10. C

BIOLOGY

1. B	2. D	3. D	4. D	5. B
6. A	7. A	8. B	9. C	10. A