

(CODE : 1P)



NARAYANA

IIT-JEE / NEET / FOUNDATIONS

NSAT-2021

Class VIII Moving to Class IX

MAT, MATHEMATICS, PHYSICS, CHEMISTRY & BIOLOGY

NARAYANA SCHOLASTIC APTITUDE TEST (NSAT)

Time: 1:00 Hr.

Date : 28-11-21

Maximum marks: 140

NSAT – SET-1

IMPORTANT INSTRUCTIONS:

1. The test Booklet consists of 35 questions. The maximum marks are 140.
2. There are five parts in the question paper of MAT, Mathematics, Physics, Chemistry & Biology having 35 questions. Each question is allotted 4 (four) marks for each correct response.
3. No Negative Marking.
4. Mark only one correct answer out of four alternatives.
5. Use Blue/Black Ball Point Pen only for writing particulars/markings.
6. Use of Calculator is not allowed.
7. Dark the circle in the space provided only.
8. Use of white fluid or any other material which damage the answer sheet, is not permissible on the Answer Sheet.

TO BE FILLED IN CAPITAL LETTERS

NAME OF THE STUDENT : _____

FATHER'S NAME : _____

CONTACT NUMBERS: _____ SCHOOL NAME : _____

ROLL NO. : _____ TEST CENTRE : _____

I have read all the instructions and shall abide by them

.....
Signature of the Candidate

I have verified all the information filled in by the Candidate

.....
Signature of the Invigilator



EDUCATION IS INTEGRAL FOR GROWTH AND DEVELOPMENT

Education is integral for the growth and development of an individual. The expectation from an educational institute is always about making the society better for all and to bring out one's true Potential in the service of mankind.

At Narayana, we believe that a student's education is complete only when we are able to contribute towards his/her overall development besides imparting knowledge based and career oriented training.

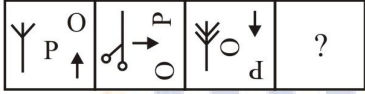




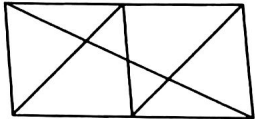
With an aim to provide top of the league training to students to excel in every sphere of their lives, Narayana Group has been focusing on result oriented inputs.

Narayana's courses have been designed to cater to all the needs of the aspirants to help them excel in various competitive as well as Board examinations. Innovative strategies and techniques adopted in our centres keep our students abreast of the ever-changing pattern of top level Engineering/Medical Entrance Exams. As a result, Narayana's time-tested learning formulae are percolating to far-flung corners of India to benefit students from all backgrounds.

"Footprints on the sands of time are not made by sitting down". Today we rededicate the last 4 decades of our success to your dreams. I wish all our students a very successful academic year ahead.

Dr. P. NARAYANA
Founder, Narayana Group

MENTAL ABILITY

1. 6, 9, 18, 45, ?
 (A) 200 (B) 150
 (C) 125 (D) 135
2. _ a b _ b c _ c _ d _ e
 (A) a c b c d (B) a b d c d
 (C) a b c e d (D) a b c d d
3. New York : United States :: Lisbon : ?
 (A) Germany (B) U.K.
 (C) Japan (D) Portugal
4. If the 'cook' is called 'butler', 'butler' is called 'manager', 'manager' is called 'teacher', 'teacher' is called 'clerk' and 'clerk' is called 'principal'; who will teach in the class?
 (A) Cook (B) Butler
 (C) Manager (D) Clerk
5. P is to the South-West of Q; R is to the East of P and South-East of Q. T is to the North of R in line with PQ. In which direction of Q is T located?
 (A) North (B) East
 (C) South-East (D) North-East
6. 
 (A)  (B) 
 (C)  (D) 
7. Find the number of triangles in the below given figure :

 (A) 18 (B) 16
 (C) 14 (D) 12

Space for rough work

MATHEMATICS

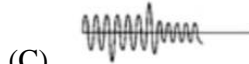
8. The property involved in $3\left(\frac{4}{5} + \frac{2}{3}\right) = 3\left(\frac{4}{5}\right) + 3\left(\frac{2}{3}\right)$ is
(A) Closure property (B) Associative property
(C) Distributive property (D) Commutative property
9. If $3(2 - x) = 4(5x + 6) + 9(3x - 4) + 6$, then the value of x is
(A) $\frac{12}{49}$ (B) $\frac{12}{50}$
(C) $\frac{-12}{49}$ (D) $\frac{-12}{50}$
10. The value of $\sqrt{214 + \sqrt{130 - \sqrt{88 - \sqrt{44 + \sqrt{25}}}}}$ is
(A) 14 (B) 17
(C) 16 (D) 15
11. If $\frac{25P + 14Q}{5P + 7Q} = \frac{8}{3}$, then $P : Q$ is
(A) 3 : 5 (B) 2 : 5
(C) 2 : 3 (D) 5 : 4
12. The value of $125\sqrt[3]{a^6} - \sqrt[3]{125a^6}$ is
(A) $120a^2$ (B) $100a^2$
(C) $100a$ (D) $-125a^2$
13. Adjacent angles of a parallelogram are in the ratio of 2 : 7, their values will be
(A) $20^\circ, 160^\circ$ (B) $30^\circ, 150^\circ$
(C) $40^\circ, 140^\circ$ (D) $60^\circ, 120^\circ$
14. Find the median of the values : 37, 31, 42, 43, 46, 25, 39, 45, 32
(A) 31 (B) 37
(C) 39 (D) 45

PHYSICS

15. If a force of 250 N acts on a body, the momentum required is 125 kg ms^{-1} . The period for which the force acts on the body is
(A) 0.1 s (B) 0.3 s
(C) 0.5 s (D) 0.2 s
16. A person, pressing his ear on the railway tracks can hear an approaching train. This is possible due to
(A) vibration of railway tracks (B) vibration of air
(C) more speed of sound in solid medium (D) hearing ability of the man

Space for rough work

17. Which of the following shows a pleasant sound?



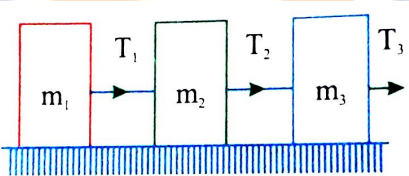
18. Electrolysis of a solution of sodium chloride produces

- (A) Hydrogen gas at anode and chlorine at cathode
(B) Hydrogen gas at cathode and chlorine at anode and sodium hydroxide
(C) Hydrogen gas at anode and sodium hydroxide at cathode
(D) Chlorine gas at anode and sodium hydroxide at cathode

19. If the normal reaction force is doubled, the coefficient of friction is :

- (A) Doubled (B) Halved
(C) Not change (D) Tripled

20. Three blocks of masses m_1 , m_2 and m_3 are connected by a massless string as shown in figure on a frictionless table. They are pulled with a force $T_3 = 40$ N. If $m_1 = 10$ kg, $m_2 = 6$ kg and $m_3 = 4$ kg, then tension T_2 will be



- (A) 10 N (B) 20 N
(C) 32 N (D) 40 N

21. The surface area of the base of a brick X is 100 cm^2 . The surface area of the base of the brick Y is 250 cm^2 . Each brick weighs 100 N. Which of the following is correct if P_1 and P_2 are the pressures exerted by the brick X and Y respectively?

- (A) $P_1 = P_2$ (B) $P_1 > P_2$
(C) $P_1 < P_2$ (D) $P_1 = P_2 = 0$

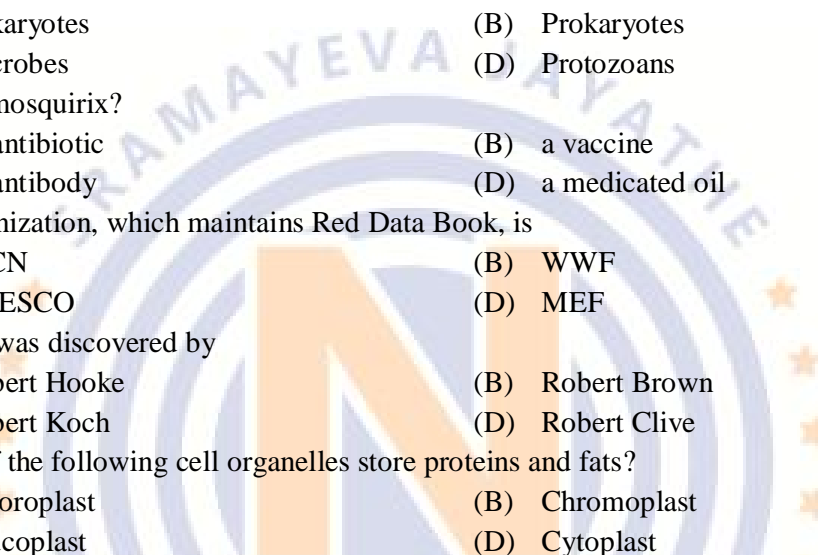
Space for rough work

CHEMISTRY

22. Which of the following is the gaseous product obtained in roasting?
(A) SO_2 (B) O_2
(C) SO_3 (D) H_2S
23. Which of the following ore do not undergo calcination
(A) Calamine (B) Magnesite
(C) Limestone (D) Haematite
24. A non-metal used to preserve food material is
(A) Carbon (B) Phosphorous
(C) Sulphur (D) Nitrogen
25. The arrangement for Copper, Tin, Lead and Mercury, according to the reactivity series is :
(A) Tin > Lead > Copper > Mercury (B) Lead > Copper > Mercury > Tin
(C) Copper > Mercury > Tin > Lead (D) Mercury > Tin > Lead > Copper
26. The fibre made up by the chemical treatment of wood pulp is
(A) Rayon (B) Nylon
(C) Polyester (D) None of these
27. Polymers are made up of small units called
(A) Layers (B) Molecules
(C) Cells (D) Monomers
28. Melamine is
(A) Thermoplastic polymer (B) Thermosetting polymer
(C) Fibre (D) Elastomer

Space for rough work

BIOLOGY

29. Name the main cereal crop grown in India –
(A) Rice & wheat (B) Rice and maize
(C) Wheat & maize (D) Maize & ragi
30. The harvesting months for Kharif crop is –
(A) June / July (B) August / September
(C) September / October (D) November / December
31. Viruses are –
(A) Eukaryotes (B) Prokaryotes
(C) Microbes (D) Protozoans
32. What is mosquirix?
(A) an antibiotic (B) a vaccine
(C) an antibody (D) a medicated oil
33. The organization, which maintains Red Data Book, is
(A) IUCN (B) WWF
(C) UNESCO (D) MEF
34. Nucleus was discovered by
(A) Robert Hooke (B) Robert Brown
(C) Robert Koch (D) Robert Clive
35. Which of the following cell organelles store proteins and fats?
(A) Chloroplast (B) Chromoplast
(C) Leucoplast (D) Cytoplast
- 

Space for rough work

COURSES OFFERED FOR STUDENTS STUDYING IN:

Class 7 th	Class 8 th	Class 9 th	Class 10 th	Class 11 th	Class 12 th
7 th Moving to 8 th	8 th Moving to 9 th	9 th Moving to 10 th	10 th Moving to 11 th	11 th Moving to 12 th	Studying Students
1,3 & 5 Year Integrated Courses	1,2 & 4 Year Integrated Courses	1 & 3 Year Integrated Courses	2 Year Integrated Courses	1 Year Integrated Courses	1 Year Repeater Courses
School / Board Exams, NTSE, Olympiads, NEET / JEE (MAIN & ADVANCED FOUNDATION)			NEET / JEE (MAIN & ADVANCED)		

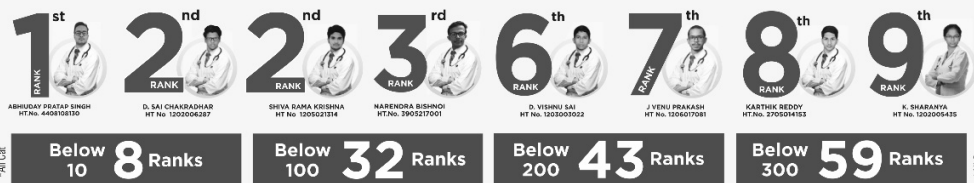
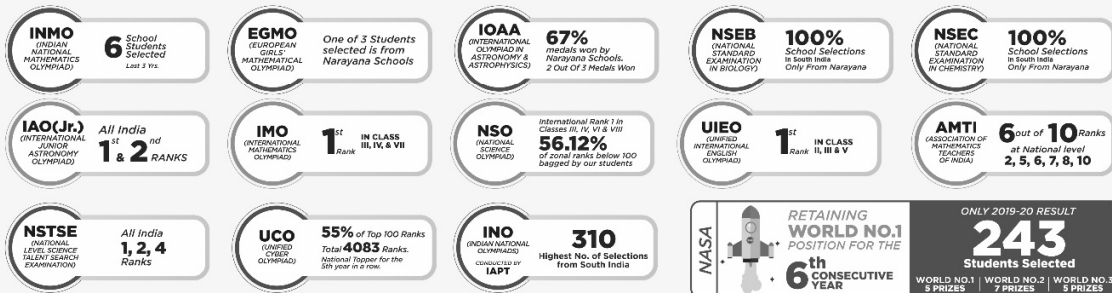
SENSATIONAL SUCCESS
in JEE ADVANCED-2021
ALL INDIA OPEN CATEGORY

JEE MAIN 2021

ALL INDIA OPEN CATEGORY TOP 10 RANKS



NEET- 2020

SOLID FOUNDATION GIVEN BY NARAYANA MAKES STUDENTS WORLD CHAMPIONS
IN MATHS, PHYSICS, CHEMISTRY, BIOLOGY, ASTRONOMY, ENGLISH & CYBER OLYMPIADS

NARAYANA

IIT-JEE / NEET / FOUNDATIONS

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