



NARAYANA

IIT-JEE / NEET / FOUNDATIONS

NSAT-2021

Class VII Moving to Class VIII

MAT, MATHEMATICS, PHYSICS, CHEMISTRY & BIOLOGY

NARAYANA SCHOLASTIC APTITUDE TEST (NSAT)

Time: 1:00 Hr.

Date : 28-11-21

Maximum marks: 140

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.

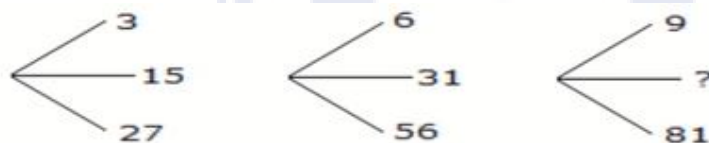
"Footprints on the sands of time are not made by sitting down". Today we rededicate the last 4 decades of our success to your dreams. I wish all our students a very successful academic year ahead.

Dr. P. NARAYANA

Founder, Narayana Group

MENTAL ABILITY

- Look at this series 80, 10, 70, 15, 60, what number should come
(A) 20 (B) 25 (C) 30 (D) 50
- Rahul put his timepiece on the table in such a way that at 6 P. M. hour hand points to North. In which direction the minute hand will point at 9:15 P.M. ?
(A) South – East (B) South (C) North (D) West
- If Q means 'add to', J means 'multiply by', T means 'subtract' and K means 'divide by' then $30 K 2 Q 3 J 6 T 5 = ?$
(A) 18 (B) 28 (C) 31 (D) 103
- Which one will replace the question mark?



- (A) 45 (B) 41 (C) 32 (D) 40
- Choose the alternative which is closely resembles the water image of the given combination.

GR98AP76ES

(1) GR98AP76ES

(2) GR98AP76ES

(3) GR98AP76ES

(4) GR98AP76ES

- (A) 1 (B) 2 (C) 3 (D) 4
- Choose the alternative which is closely resembles the mirror image of the given combination.

TARAIN1014A

(1) TARAIN1014A

(2) AT014INIA RAT

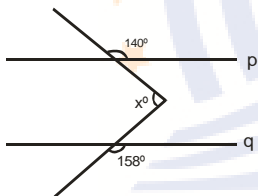
(3) AT014INIA RAT

(4) AT014INIA RAT

- (A) 1 (B) 2 (C) 3 (D) 4
- Starting from the point x, Jayant walked 15 m towards west. He turned left and walked 20 m. he then turned left and walked 15m. after this he turned to his right and walked 12 m. How far and in which directions is now Jayant from x?
(A) 32 m, South (B) 47 m, East (C) 42 m, North (D) 27 m, South

Space for rough work

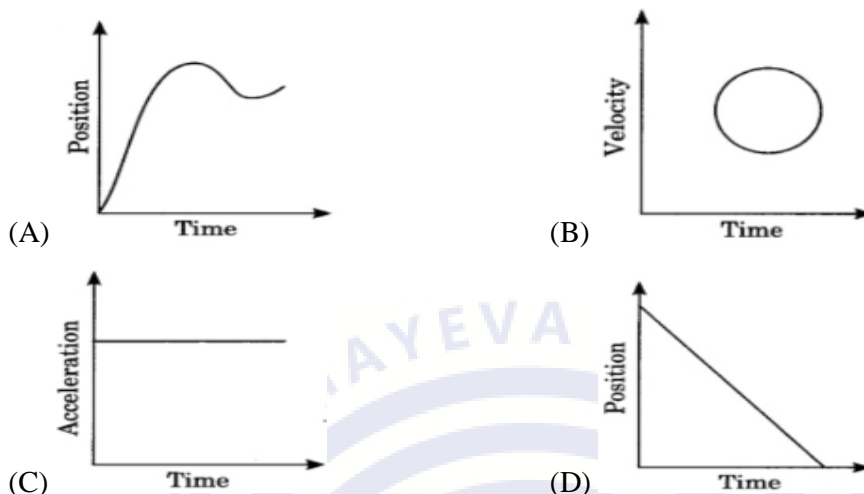
MATHEMATICS

8. A tanker contains 500 litres of water. Due to a small hole in the tanker, the quantity of water is decreasing at the rate of 9 litres every hour. What will be quantity of water left in the tanker after 10 hours?
 (A) 410 litres (B) 491 litres (C) 400 litres (D) 90 litres
9. The value of $1 + \frac{1}{1 + \frac{1}{1 - \frac{1}{6}}}$ is
 (A) $\frac{6}{11}$ (B) $\frac{16}{11}$ (C) $\frac{7}{6}$ (D) $\frac{1}{6}$
10. Mean of 9 observations was found to be 35. Later on, it was detected that an observation 81 was misread as 18, then the correct mean of the observations is
 (A) 40 (B) 41 (C) 42 (D) 43
11. In a caravan, in addition to 50 hens there are 45 goats and 8 camels with some keepers. If the total number of feet be 224 more than the number of heads, then the number of keepers is
 (A) 15 (B) 16 (C) 17 (D) 19
12. Assume $p \parallel q$ in the figure shown, the value of 'x' is

 (A) 18° (B) 22° (C) 62° (D) can't be determined
13. Gold is 19 times as heavy as water and copper is 9 times, as heavy as water. In what ratio should these be mixed to get an alloy 15 times as heavy as water?
 (A) 1 : 1 (B) 3 : 2 (C) 1 : 2 (D) 2 : 3
14. In $\triangle ABC$, $AB = 3$ cm, $BC = 2.6$ cm and $AC = 1.7$ cm, then the angles of the triangles in ascending order is _____
 (A) $\angle B < \angle A < \angle C$ (B) $\angle A < \angle B < \angle C$ (C) $\angle C < \angle B < \angle A$ (D) $\angle A < \angle C < \angle B$

Space for rough work

PHYSICS

15. Which of the following graphs is not possible?



16. How we measure the energy value of food?

- (A) Joule (B) Joule/Second (C) Calorie (D) None of the above

17. Pick the odd one out

- (A) Cyclone (B) Hurricane (C) Monsoon (D) Typhoon

18. The amount of heat required to raise the temperature of a substance by 1°C is called:

- (A) Work capacity (B) Heat Capacity (C) Energy Capacity (D) None of the above

19. Which of the following places is most likely to be affected by a cyclone?

- (A) Mumbai (B) Puri (C) Goa (D) Porbandar

20. A particle is moving in a circular path of radius r . The displacement after half a circle would be:

- (A) Zero (B) πr (C) $2r$ (D) $2\pi r$

21. A body is thrown vertically upward with velocity u , the greatest height h to which it will rise is,

- (A) u/g (B) $u^2/2g$ (C) u^2/g (D) $u/2g$

Space for rough work

CHEMISTRY

22. Which of the following is a weak acid?
(A) H_3PO_4 (B) H_2CO_3 (C) H_2SO_4 (D) HNO_3
23. Gypsum salt is
(A) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ (B) $\text{CaSO}_4 \cdot \text{H}_2\text{O}$ (C) $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ (D) CaSO_4
24. Which is a base and not an alkali?
(A) NaOH (B) KOH (C) $\text{Fe}(\text{OH})_3$ (D) None is true
25. Conversion of milk into curd is
(A) Physical change (B) Chemical Change (C) Can't Predict (D) Both 1 and 2
26. Which is an example of physical change?
(A) Cooking of food (B) Boiling of water
(C) Burning magnesium (D) Rusting of Iron
27. Monomer unit of polyester is
(A) Amide (B) Ester (C) Ethane (D) None of these
28. The synthetic fiber which contains the organic group similar to those which smell like fruit
(A) Nylon (B) Acrylic (C) Rayon (D) Terylene

BIOLOGY

29. Which of the following is undigested semi solid food in ruminants?
(A) Cud (B) Faeces (C) Chyme (D) Bolus
30. Climate
(A) Refers to average temperature at a place over a long time
(B) Refers to average rainfall at a place over a long time
(C) Refers to average weather pattern at a place over a long time
(D) All of the above
31. Respiration is an example of which of the following process?
(A) Anabolic (B) Catabolic (C) Metabolic (D) Both (A) & (C)

Space for rough work

32. Which of the following animals have sticky pads on its feet?
(A) Blue eyed frog (B) Red eyed frog (C) Green eyed frog (D) yellow eyed frog
33. Which part of a cactus plant performs photosynthesis?
(A) Leaves (B) Spines (C) Roots (D) Stem
34. The length of small intestine and large intestine are respectively
(A) 7.5 m and 1.5 m (B) 1.5 m and 7.5 m (C) 7.5 m and 1.0 m (D) 1.5 m and 7.0 m
35. Covering of lungs is called
(A) Pericardium (B)Pleural membrane (C) Peritoneum (D) Perichondrium



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

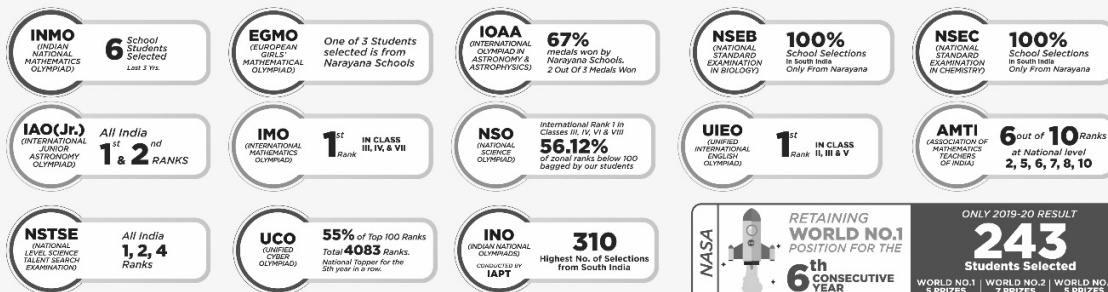


NEET- 2020



SOLID FOUNDATION GIVEN BY NARAYANA MAKES STUDENTS WORLD CHAMPIONS

IN MATHS, PHYSICS, CHEMISTRY, BIOLOGY, ASTRONOMY, ENGLISH & CYBER OLYMPIADS



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