

NTSE 2011
TAMIL NADU

Ist STAGE SAT ~~SAVA~~ QUESTIONS (EXAM HELD ON 21 NOVEMBER 2010)

1. In a pinhole camera if the size of the pinhole is increased then the image becomes
Ans: blurred
2. When a body falls freely its velocity given by
Ans: $v = u + at$
3. A fuse wire has
Ans: High resistance and low melting point.
4. vinegar is a dilute solution of
Ans: Acetic acid
5. Carbon is
Ans: an oxidising agent
6. The gas evolved during the reaction of sodium with water is
Ans: Hydrogen
7. The suicidal bags in an animal cell are
Ans: Lysosomes
8. Fishes have----- heart.
Ans: Two chambered
9. Rearing of honey bees in a large scale is known as
Ans: Apiculture
10. A bacteria responsible for conversion of milk into curd is
Ans: Lactobacillus
11. The diagonal of a rectangular field is 61 m. If the length is 60 m the area of the field is
Ans: 660 Sq.m
12. The judges of the Supreme Court hold office till the age of
Ans: 65
13. The third battle of Panipat was fought in the year
Ans: 1761
14. Apartheid was practised in
Ans: South Africa
15. Young fold mountains are
Ans: Himalayas.
16. Diamonds are coloured due to the presence of
Ans: Impurities
17. In a uniform magnetic field the magnetic flux lines are
Ans: Parallel
18. In Children Vitamin D deficiency disease is
Ans: Rickets
19. The structural and functional unit of nervous system
Ans: Neuron
20. Largest desert in the world is
Ans: Sahara



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Ist STAGE MAT ~~QUESTIONS~~ QUESTIONS (EXAM HELD ON 21 NOVEMBER 2010)

1. A is sister of B and C is brother of B the
Ans: C is brother of A always
2. The number '0' (zero) is
Ans: neither positive nor negative integer
3. The number '1' is
Ans: neither composite nor prime
4. Which of the sets of sides do not form a triangle?
Ans: 6,6,13
5. If $a/b = 2/3$ then
Ans: $a = b$ is true only if a and b are positive numbers.
6. The product of two positive integer is 100
Ans: 20
7. A and B are parallel lines, B and C are perpendicular lines; D and C are perpendicular lines, on a plane. Then
Ans: And D are parallel
8. The sum of squares of two real lnumbers is zero only if
Ans: bother are zeros
9. The unit 800 cm/min is equivalent to
Ans: 48 km/hour
10. The volume of sphere coincides with its surface area numerically only if the radius is
Ans: 3
11. Anu is twice as old as Manu, Manu is half as old as Shanu. Shanu's age is 5 greater than Manu. Ages of Anu and shanu are respectively.
Ans: 10,10



- ① 1st factory of French was setup at _____
- ② 3rd battle of Panipat was fought in the year _____
- ③ What is Rast Yojtae?
- ④ Supreme head of armed force is _____
- ⑤ Rules of head regulation came into effect in the year _____
- ⑥ Constitution of India was accepted in the year _____
- ⑦ UNO was set up on _____
- ⑧ Example of temperate deciduous trees is _____
- ⑨ Army headquarters of India is in _____
- ⑩ The % of nitrogen in air _____
- ⑪ Fraction of earth that Pacific Ocean covers is _____
- ⑫ _____ is the founder of Khalji Dynasty.
- ⑬ The states were recognised on basis of language in the year _____
- ⑭ _____ is the national flower of India.
- ⑮ _____ protected kings.
- ⑯ Who is the governor of Multan?
- ⑰ The capital of Udaipur was _____
- ⑱ _____ gave the definition of democracy as "For the people, by the people on the people"

Science

- ① _____ Causes change of milk into curd.
- ② _____ is caused due to deficiency of VIT D.
- ③ the velocity of a falling body is calculated by _____.
- ④ ~~the~~ Pressure in liquid don't depend on _____.
- ⑤ _____ is the basic unit of nervous system.
- ⑥ Decrease in no. of plants causes _____.
- ⑦ The impure copper rod is the _____ in an electrolysis process.
- ⑧ _____ is an edible fungi. (scientific name).
- ⑨ _____ is a free living fungi.

- ⑩ _____ is used to cure ant sting.
- ⑪ Vinegar is a form of _____ acid
- ⑫ Diamond shines because _____.

Social

- ① 1st factory of French was setup at _____.
- ② 2nd ~~and~~ Panipat war was fought in the year _____.
- ③ The supreme head of armed forces is _____.
- ④ Army headquarters of India is in _____.
- ⑤ Rules of road regulation came into effect in the year _____.
- ⑥ The constitution of India was accepted in the year _____.
- ⑦ UNO was setup on _____.
- ⑧ Example of temperate deciduous forests is _____.
- ⑨ The % of nitrogen in air _____.
- ⑩ The fraction of earth that Pacific ocean covers is _____.

the questions appeared in ntse tamil nadu

chemistry:

1. what to apply for honey bee sting -- ans: baking soda?
2. vinegar contains ----- acid

biology:

1. dome shaped muscle present below our lungs
 2. -----bacteria turns milk into curd
1. A is twice as fast as B. B is thrice as fast as C. If C reaches the destination in 72 minutes in what time will A reach

Maths

1. $\frac{4}{5} - X = 1 \frac{7}{40}$ (mixed fraction i.e $\frac{47}{40}$) find x
2. $(\frac{64}{2})^{\frac{2}{3}} \times (\frac{27}{2})^{\frac{2}{3}} =$

Social: 1.

who was the ruler of multan?

- 2, Udaipur was the capital of ----- ans: mewar
3. for the people, by the people, of the people proposed by ..Abraham lincoln
4. Pacific ocean consists of --- water of the world. (ans 1/3 rd)
- 5 coldest place on earth . option 1. siberia 2. antartic etc
6. -----trees have needle like leaves
7. UNO formed on -----
8. Constitution came into force on -----
9. Children below age ??? should not be allowed to work in hazardous area
10. In ancient times kings were protected by
a) brahmins b) Sudras c) shatriyas d) vysiya

from state board syllabus it may contain 25% questions. Mostly from general syllabus MAT time consuming.

28. Who is the ruler of Multan?

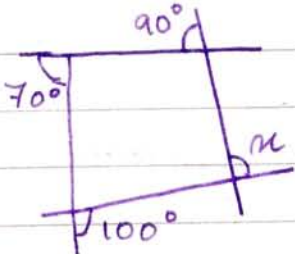
29. _____ grows in deciduous forests.
- oak.

30. Founder of ~~xxx~~ Khilji dynasty?

31. Which is the dome-shaped muscle in our body?
- diaphragm.

32. $a + b + c = 10$, $ab + bc + ca = 21$. What is the value of $a^2 + b^2 + c^2$?
- 79.

33. $21Y5$ is a multiple of 9. Find Y .

34.  Find n .
- 100° .

35. Sound travels in water at a speed of 1500 m/s . At a ship signal is heard as an echo after 3 s . Find the depth of the sea.
- 4500 m .

36. The bacteria which helps in conversion of milk into curd
- *Lactobacillus*.

37. Basic functional unit of nervous system
- Neuron.

1. Voting age was reduced from 21 to 18 by
= Rajiv Gandhi.
2. UNO was established in
= 24th October 1945.
3. Sharp needle-like leaves are found in
= Coniferous.
4. Percentage of nitrogen in atmosphere is
= 78%.
5. Coldest part on Earth
- Antarctica.
6. Largest producer of gold
- South Africa.
7. Headquarters of army
- Delhi.
8. Supreme commander of armed forces
- President.
9. Direct democracy is practiced in
- France.
10. Definition of democracy was given by
- Abraham Lincoln.
11. National flower of India
- Lotus.

12. Largest Desert in India

- Thar desert.

13. VIT D deficiency

- Rickets.

14. Suicidal bags are

- Lysosomes.

15. Apartheid was practised in

- South Africa.

16. The atomic numbers of x and y are same. But their mass numbers are different. They are _____

- Isotopes.

17. Deforestation results in

- decrease of oxygen.

18. Pacific ocean occupies

- $\frac{2}{3}$ of the world.

19. Fish is _____ chambered

- 2.

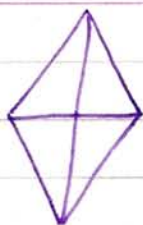
20. Colour of diamond is due to

- impurities.

21. $\left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{4}\right)^{-2} + \left(\frac{1}{6}\right)^{-2} + \left(\frac{1}{9}\right)^{-2}$

- 137.

22.



In a rhombus, its diagonals are 12 cm and 16 cm.
Find its each side.

- 10 cm.

23. Which of these is incorrect

- (i) Fluid pressure increases with depth.
- (ii) Fluid pressure increases with density.
- (iii) Fluid pressure is parallel to the surface of the container.
- (iv) None of these.

24. Magnetic flux in a magnetic field is

- (i) parallel
- (ii) Parallel
- (iii) in any direction
- (iv) Intersecting.

25. Sodium mixed with water liberates — gas.

- Hydrogen.

26. Mercury level in a barometer rises during

- (a) storm
- (b) wind and rain
- (c) fair weather
- (d) none.

27. Concave mirror acts as a shaving mirror. Where should a person's face lie?

- (a) At P
- (b) At F
- (c) Between P and F
- (d) None.