

SNGS NEET/JEE Scholarship/Admission Sample Test Question Paper

Section 1: General Science

- When a wire is stretched and its radius becomes $r/2$, then its resistance will be (a) 16 R (b) 4 R (c) 2 R (d) R/2
- An object of height 1.5 cm is placed on the axis of a convex lens of focal length 25 cm. A real image is formed at a distance of 75 cm from the lens. The size of image will be (a) 4.5 cm (b) 5 cm (c) 3.0 cm (d) 0.75 cm
- The inertia of an object tends to cause the object. (a) to increase its speed (b) to decrease its speed (c) To resist any change in state of motion (d) to decelerate due to friction.
- The secondary suffix used in IUPAC nomenclature of an aldehyde is _____. (a) -ol (b) -oic acid (c) -al (d) -one
- Which is heavier? (a) 3 moles of water (b) 2 moles of Nitrogen (c) 3 moles of Ammonia (d) 2 moles of Oxygen
- The most electronegative element is (a) Iodine (b) Sulphur (c) Fluorine (d) Oxygen
- Estrogen is secreted by _____. (a) Anterior pituitary (b) Primary follicle (c) Graffian follicle (d) Corpus luteum
- Which type of cancer affects lymph nodes and spleen? (a) Carcinoma (b) Sarcoma (c) Leukemia (d) Lymphoma
- What are the end products of the anaerobic respiration that the yeast performs (a) Carbondioxide, water and energy (b) Alcohol, carbondioxide and energy (c) Lactic acid, carbondioxide and energy (d) Alcohol, water and Energy
- Which of the following about blood capillaries is/are true? (i) These are found in the peripheral region of organs and body (ii) The rate of flow of blood in capillaries is the least. (iii) Their total cross section area is intermediate between those of veins and arteries (iv) They have only a thin layer of involuntary muscles in the wall. (a) i, ii, iii, iv (b) Only ii, iii, iv (c) Only ii (d) Only i & iv

Section-2 Mathematics

11. To pay for travelling a distance of 30 km?

(a) Rs. 236 (b) Rs. 240 (c) Rs. 248 (d) Rs. 252

12. A, B and C enter into a partnership and their shares are in the ratio $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$. After two months, A

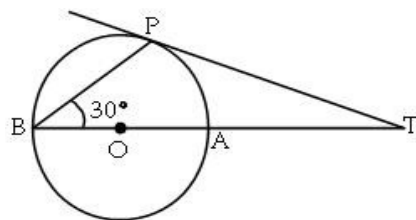
With draws half of his capital and after 10 months, a profit of Rs. 378 is divided among them. What is B's share?

(a) Rs. 129 (b) Rs. 144 (c) Rs. 156 (d) Rs. 168

13. The solution of the equation $9^x + 78 = 3^{2x+3}$ is _____

(a) 2 (b) 3 (c) $\frac{1}{2}$ (d) $\frac{1}{3}$

14. In the given figure, the ratio BA: AT is



- (a) 2: 1 (b) 1 : 2 (c) 1: 3 (d) 3: 1

15. A ladder 15m long makes an angle of 60° with the wall. Find the height of point where the ladder touches the wall.

- a) 2.859 b) 2.589 c) 2.955 d) 2.598

16. If a tower of 30m high casts a shadow $10\sqrt{3}$ m long on ground then what is the angle of elevation of sun?
a) 60° b) 30° c) 90° d) 10°

17. Consider the equation $2a^2 + 3b^2 = 35$, where a, b are integers. Then the number of possible solutions for the above equation is/are

- (a) 1 (b) 4 (c) 8 (d) infinitely many

18. Simplify $\frac{5}{x+2} - \frac{2}{x-1}$

- (a) 1 (b) $\frac{3}{(x+2)(x-1)}$ (c) $\frac{3x-1}{(x+2)(x-1)}$ (d) $\frac{3x-9}{(x+2)(x-1)}$

19. 19. A circle has a diameter of length 16 cm.

Through the midpoint of the radius, a chord is drawn perpendicular to the radius, and then the length of the chord is

- (a) 4m (b) 8 cm (c) $4\sqrt{3}$ cm (d) $8\sqrt{3}$ cm

20. Mr. Sharma starts from his house for a walk and walks 4 km east. He takes a tea break and then walks 3 km north to meet Mr. Lal. They both walk 2 km along North-East to a hotel. Mr. Lal stays back at the hotel and Mr. Sharma further continues his walk for 4 km along North. Planning to go back home, he turns west and walks 3 km, and stops at a park. Feeling very tired, he calls out his son to pick him up from the park. If the park and his house are connected by a single road, how far is Mr. Sharma from his house?

- (a) 10 km (b) $\sqrt{97}$ km (c) $\sqrt{116}$ km (d) $\sqrt{90}$ km

Answer Key

- 1 (a) 2 (c) 3 (b) 4 (c) 5 (d) 6 (c) 7 (c) 8 (c) 9 (b) 10 (c)
11 (b) 12 (b) 13 (c) 14 (a) 15 (d) 16 (a) 17 (c) 18 (d) 19 (d) 20 (d)

Section-3

Shree Niketan Talent Reward Test -2025

SUBJECT: ENGLISH**TOTAL MARKS: 30****I Read the passage given below. (10)**

1. Call it a blessing or a curse of Mother Nature, we have to breathe in over 10,000 liters of air in a day (more than four million liters in a year) to remain alive. By making it essential for life, God wanted us to keep the air we breathe clean. Everyone can see the food that is not clean and perhaps refrain from eating it, but one cannot stop breathing even if one can feel the air to be polluted.

2. Several harmful and noxious substances can contaminate the air we breathe. Generally, much is said and written about outdoor air pollution, most of which is due to vehicular and industrial exhausts. Given the fact that most of us spend most of our time indoors, it is most important to recognise that the air we breathe in at home or in offices can be polluted. It can be a cause of ill-health. Air pollutants that are generally present in very low concentrations

3. One can assume significance in closed ill-ventilated places. The indoor air pollution can lead to allergic reactions and cause irritation to the skin, the eyes and the nose. But as is logical to assume, the brunt of insult by pollutants is borne by the lungs. It can lead to the development of fresh breathing problems, especially in those who have allergic tendencies, or it can worsen the existing respiratory illnesses like asthma and bronchitis. There can be several sources of indoor air pollution.

4. Tobacco smoke is one of the most important air pollutants in closed places. "Passive smoking" or environmental tobacco smoke (ETS) pollution can lead to all the harmful effects of tobacco smoking seen in the smokers in their non-smoking companions. ETS as a health hazard has been unequivocally proven and is also getting social recognition now. One can occasionally see signs displaying the all-important message: "Your smoking is injurious to my health" in offices and homes.

5. The children of smoking parents are among the worst affected persons. The exposure of young children to ETS leads to increased respiratory problems and hospital admissions as compared to non-exposed children. Several studies, including those done at the PGI, have shown an increased risk of lung cancer among women exposed to passive smoking. ETS also worsens the existing lung diseases like asthma and bronchitis. It may be responsible for the development of asthma in children.

6. The gases are very toxic in high concentrations as may be encountered during industrial accidents, but even in very minimal amounts, as may be prevalent in homes and offices, they can cause irritation to the skin or the eyes, rashes, headache, dizziness and nausea. Improving the ventilation is an important preventive measure, besides trying to eliminate the source that may not be always feasible. Other indoor pollutants are toxic chemicals like cleansing agents, pesticides, paints, solvents and inferior quality personal-care products, especially aerosols. Very old crumbling pipes, boilers, insulation or false roofing can also be important sources. Asbestos is a hazardous product that can cause cancer in humans. It is important to realise that the air we breathe at home may not be clean always and we must try to eliminate the source of pollution. We should give due consideration to ventilation.

Based on your understanding of the passage, answer questions given below.

(A) What does the writer mean by using the quote "Your smoking is injurious to my health"? (1)

(B) Rewrite the following sentence by replacing the underlined phrase with a word that means the same from lines 15-20.

Shalini, without a doubt, is a Manchester City fan. She even got the stadium tickets to go watch the live series. (1)

- (C) State a reason for air being contaminated with noxious substances. (1)
 (D) Why are the children of smoking parents more prone to 'hospital admissions'? (2)
 (E) List one reason as to why we should give 'due consideration to ventilation'? (1)
 (F) How does the writer justify emphasising ventilation over eliminating the source of pollutant? (2)
 (G) Write the Expansion of **ETS** (1)
 (H) Find the word which means the same as 'unsafe' from the para 5 & 6 (1)

II Complete the following tasks as directed. 6x1=6

- The players, as well as the captain, ----- (want, wants) to win. (1) **choose the appropriate verb**
- Fill in the blank by using the correct form of the word in the bracket.**
 The students, with the help of their teacher _____ (create) a beautiful poster. [1]
- Identify the error in the given sentence and supply the correction: [1]**
 The orchestra performed on the central theatre in front of a huge audience.
 Use the given format for your response:

ERROR	CORRECTION

- Bela shared some information about her visit to her grandmother with Malini. Report Malini's question.**

Is your grandmother feeling better now? (1)

- We ___ go to the museum tomorrow if the weather is nice. (Fill in with a suitable modal verb)

- Report the dialogue between Lata and Usha by completing the sentence: [1]**

Lata: What activity did you enjoy the most in the summer camp?

Usha: I enjoyed art and craft class.

Lata asked Usha what activity did she enjoy the most in the summer camp. Usha replied that _____ art and craft class.

- (A) she had enjoyed
 (B) she would enjoy
 (C) she enjoyed
 (D) she has enjoyed

III You are Amit/Amita of 47, COD colony, Jaipur. You happened to take part in a medical camp organized in a remote village near Delhi. You are surprised to find that most of the people there have no awareness of basic health and hygiene. As a concerned citizen, you decide to take up their cause and organize camps to make the villagers aware of the importance of hygiene. Write a letter to the editor of a newspaper, in about 120 words, expressing your concern and encouraging youngsters to take part in such campaigns. (4 marks)

-----THE END-----