

RPS GROUP OF SCHOOLS

ADMISSION- *Cum* -SCHOLARSHIP TEST

For Grade III to XI

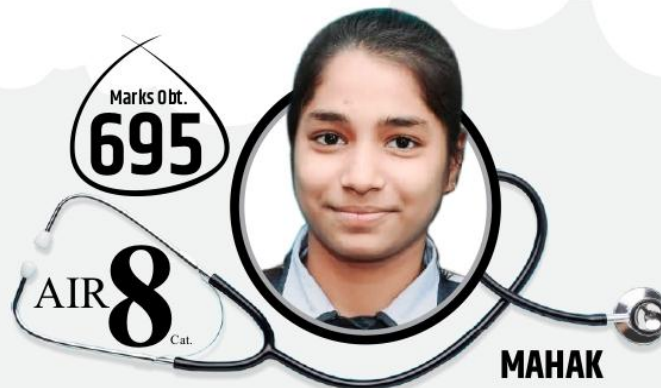
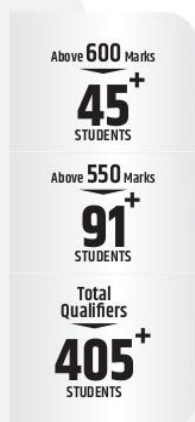
Sunday, 1st January 2023

APPEARING FOR CLASS X

**SCHOLARSHIP ASPIRANTS TODAY
VICTORS IN LIFE TOMORROW !**

At **RPS** *Excellence is a* **HABIT**

NEET TOPPER

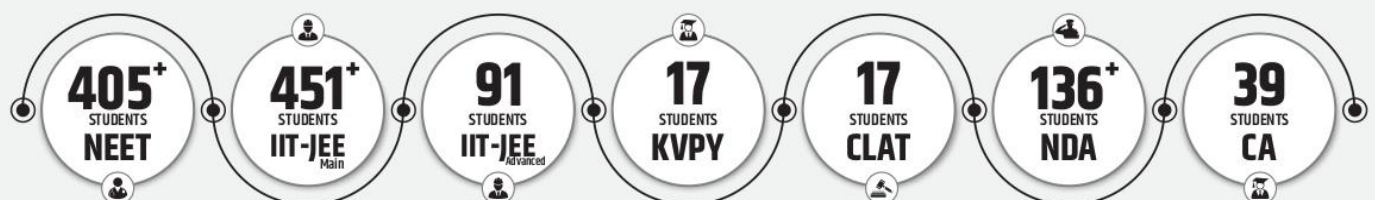


IIT-JEE TOPPER



OUR RESULTS SPEAK LOUDER THAN WORDS

SESSION 2022-23



APPEARING FOR CLASS X

Science: 1-20

Mathematics: 21-40

Social Science: 41-60

English: 61-80

TIME: 90 Minutes

M.M. 80

Student's Name: Father's Name: Mobile No.:

Address

Present School:

General Instructions:

1. Duration of Test is 90 minutes and Question Paper contains 80 Questions with maximum 80 marks.
2. Use of gadgets is not allowed.
3. Student should abide by the instructions issued during the examination by the invigilator or the centre incharge.
4. Before attempting the question paper ensure that it contains all the pages and that no question is missing.
5. **There is No Negative marking.**

Correct Method



Wrong Method



Science (20 Marks)

Physics (7 Marks)

- Q1. A body is thrown vertically up with a velocity u . It passes three points A, B and C in its upward journey with velocities $\frac{u}{2}, \frac{u}{3}$ and $\frac{u}{4}$ respectively. The ratio of the separations between points A and B between B and C , i.e., $\frac{AB}{BC}$ is:
- A) 1 B) 2 C) $\frac{10}{7}$ D) $\frac{20}{7}$
- Q2. A pendulum is suspended from the roof of the compartment of train. The string makes a constant angle of 30° with the vertical, towards the rear of the train. What is the nature of the motion of the train?
- A) Accelerating at $g/\sqrt{3}$ B) Accelerating at $3\sqrt{3}g$
C) Retarding at $\sqrt{3}g$ D) Retarding at $g/\sqrt{3}$

Q3. A man walks over a rough surface; the angle between the force of friction and the instantaneous velocity of the person is:

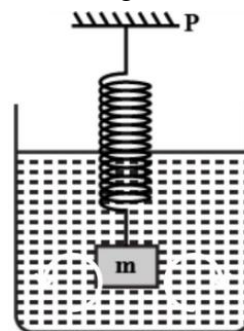
- A) π B) $\pi/2$ C) 2π D) zero

Q4. A particle of mass M , starting from rest, undergoes uniform acceleration. If the speed acquired in time T is V , the power delivered to the particle is:

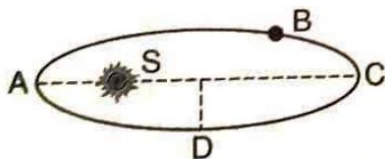
- A) $\frac{MV^2}{T}$ B) $\frac{1}{2} \frac{MV^2}{T}$ C) $\frac{MV^2}{T^2}$ D) $\frac{1}{2} \frac{MV^2}{T^2}$

Q5. A cube of mass m and density D is suspended from the point P by a spring of spring constant K . The system is kept inside a beaker filled with a liquid of density d . The elongation in the spring, assuming $D > d$, is:

- A) $mg/K(1 + d/D)$
 B) $mg/K(1 - D/d)$
 C) $mg/K(1 - d/D)$
 D) None of the above



Q6. A planet revolves in elliptical orbit around the sun. The linear speed of the planet will be maximum at:



- A) A B) B C) C D) D

Q7. To hear a distinct echo each time interval between the original sound and the reflected sound must be:

- A) 0.2 s B) 0.1 s C) 2 s D) 1 s

Chemistry (7 Marks)

Q8. Which of the following states has the least energetic molecules?

- A) Liquid B) Solid C) Gas D) Plasma

Q9. A 15% alcohol solution means

- A) 15 mL alcohol and 85 mL water B) 15 mL alcohol and 100 mL water
 C) 15 mL water and 85 mL alcohol D) 15 mL alcohol and 50 mL water

Q10. The number of molecules in 100 ml of 0.02 N H_2SO_4 is

- A) 6.02×10^{22} B) 6.02×10^{21} C) 6.02×10^{20} D) 6.02×10^{18}

Q11. Two oxides of a metal contain 36.4% and 53.4% of oxygen by mass respectively. If the formula of first oxide is M_2O , then that of the second is

- A) M_2O_3 B) MO C) MO_2 D) M_2O_5

- Q12. The percentage of Se in peroxidase anhydrous enzyme is 0.5% by weight (atomic weight = 78.4). Then minimum molecular weight of peroxidase anhydrous enzyme is
 A) 15.68 B) 1.568×10^3 C) 1.568×10^4 D) 3.136×10^4
- Q13. What is the mass of urea required for making 2.5 kg of 0.25 molal aqueous solution?
 A) 37 g B) 25 g C) 125 g D) 27.5 g
- Q14. The electronic configuration, $1s^2 2s^2 2p^6 3s^2 3p^6 3d^9$, represents a
 A) Metal atom B) Non-metal atom
 C) Non metallic anion D) Metallic cation

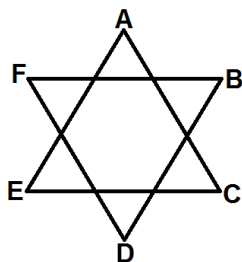
Biology (6 Marks)

- Q15. Mitochondria are present in all cells except
 A) Fungi B) Bacteria and blue green algae C) Algae D) Angiosperms
- Q16. The hardness of the bone tissue is due to the phosphates and carbonates of
 A) Calcium and sodium B) Calcium and magnesium
 C) Magnesium and sodium D) Magnesium and potassium
- Q17. Balanoglossus is connecting link between
 A) Urochordata and Cephalochordata B) Urochordata and Vertebrata
 C) Cephalochordata and Vertebrata D) Non-Chordata and Chordata
- Q18. Inland fisheries are related to
 A) Culturing of fish in fresh water B) Trapping and capturing fish from sea shore
 C) Deep sea fisheries D) Extraction of oil from fishes
- Q19. In a highly pesticide polluted pond, which of the following aquatic organisms will have the maximum amount of pesticide per gram of body mass?
 A) Lotus B) Fishes C) Spirogyra D) Zooplanktons
- Q20. Which is a bacterial disease?
 A) AIDS B) Mumps C) Influenza D) Tetanus

Mathematics (20 Marks)

- Q21. $\sqrt{m^4 n^4} \times \sqrt[6]{m^2 n^2} \times \sqrt[3]{m^2 n^2} = (mn)^k$, then find the value of 'k'
 A) 6 B) 3 C) 2 D) 1
- Q22. $a + b\sqrt{30} = \frac{\sqrt{2.3} - \sqrt{0.69}}{\sqrt{2.3} + \sqrt{0.69}}$, then the values of a & b are
 A) $a = \frac{-13}{7}, b = \frac{-2}{7}$ B) $a = \frac{-13}{7}, b = \frac{2}{7}$
 C) $a = \frac{13}{7}, b = \frac{-2}{7}$ D) $a = \frac{13}{7}, b = \frac{2}{7}$

- Q23. If $x - \frac{1}{x} = 2$ then the value of $x^4 + \frac{1}{x^4}$ is
 A) 4 B) 8 C) 34 D) 12
- Q24. Degree of the polynomial $\sqrt{(x-1)(x+1)} \times \sqrt{(x+1)(x+2)} \times \sqrt{(x-1)(x+2)}$ is
 A) Not defined B) Not a polynomial C) 6 D) 3
- Q25. If the point $(2P - 3, P + 2)$ lies on the line $2x + 3y = -15$ then the value of ' P ' is
 A) $\frac{-7}{15}$ B) $\frac{7}{15}$ C) $\frac{15}{7}$ D) $\frac{-15}{7}$
- Q26. The number of solution's of the equation $\sqrt{x^2} = x - 2$ is
 A) 0 B) 1 C) 2 D) 4
- Q27. In the given figure, what is the value of $\angle A + \angle B + \angle C + \angle D + \angle E + \angle F$.



- A) 360° B) 270° C) 540° D) 180°
- Q28. Find $\angle ADC$ from the given figure
-
- A) 140° B) 35° C) 135° D) 120°
- Q29. The figure obtained by joining the mid-points of the sides of a rhombus, taken in order is
 A) a rhombus B) a rectangle C) a square D) a parallelogram
- Q30. An angle whose supplement is six times its complement is given by
 A) 70° B) 72° C) 54° D) 36°
- Q31. If P is a point in the interior of a circle with centre ' O ' and radius ' r ', then
 A) $OP = r$ B) $OP > r$ C) $OP < r$ D) $OP \geq r$
- Q32. A point whose both coordinates are opposite in sign will lie in,
 A) I or II quadrant B) II or III quadrant C) II or IV quadrant D) III or IV quadrant
- Q33. The distance of point $(-3, -5)$ from ' x ' axis
 A) -3 B) -5 C) 3 D) 5
- Q34. Find the area of a triangle whose sides are in ratio $13 : 12 : 5$ and perimeter of the triangle is 60m.
 A) $\sqrt{120}\text{m}^2$ B) 160m^2 C) 120m^2 D) None of these

- Q35. The radius of a sphere is 10cm if its radius is increased by 1cm the volume of the sphere is increased by
 A) 13.3% B) 22.1% C) 30% D) 33.1%
- Q36. The radii of two cone's are in the ratio 2 : 3 and their slant heights are in the ratio 5 : 4 then the ratio of there curved surface areas
 A) 2 : 5 B) 5 : 6 C) 6 : 5 D) 5 : 3
- Q37. The dimensions of a room are 10m × 8m × 5m then length of the longest iron rod can be placed inside the room
 A) 18m B) 17m C) 23m D) None of these
- Q38. The mean of first 10 even natural numbers is
 A) 110 B) 12 C) 10 D) 11
- Q39. The range of the data 25.7, 16.3, 2.8, 21.7, 24.3, 22.7, 24.9 is
 A) 22 B) 22.9 C) 21.7 D) 20.8
- Q40. Which of the following cannot be the probability of an event.
 A) $\frac{2}{3}$ B) 15% C) $\frac{3}{2}$ D) 0.0003

Social Science (20 Marks)

- Q41. Which of the following rights is not directly mentioned in the Fundamental Rights, but has been upheld to be so by several pronouncements of the Supreme Court?
 A) Equality before Law
 B) Right to non-discrimination in public employment
 C) The right to form trade unions or organizations
 D) Right to freedom of Press
- Q42. What was the reason behind the celebration of the first International Women's Day?
 A) The women of Russia were given suffrage rights.
 B) The women led a protest on the right bank of river Neva.
 C) The women started participating in the First World War.
 D) The women were given educational rights.
- Q43. When did the MSP is declared by the government every year?
 A) Before sowing season
 B) After Sowing season
 C) In between the crop
 D) After the sale of the crop as a gesture for good production

- Q44. If Shaliendra is elected as the President of India, which of the following decisions can he take on his own?
- A) He can select the person he likes, to become the Prime Minister.
 - B) He can dismiss a Prime Minister who has a majority in Lok Sabha.
 - C) He can ask for reconsideration of a bill passed by both the Houses.
 - D) He can nominate the leaders of his choice to the Council of Ministers.
- Q45. Mid-Day Meal Scheme has proved to be a game changer when it comes to increasing the gross enrollment ratio in the primary schools. Which of the following statements is not true with regard to this scheme?
- A) It provides for monthly cash transfers to bank accounts of children for better nutrition.
 - B) It is a centrally sponsored scheme launched in 1995.
 - C) Cooked meals are provided to every child within the age group of 6 to 14 years studying in Classes 1st to 8th who enrolls and attends the school.
 - D) It aims to attain the goal of universalization of primary education.
- Q46. Although majority of the course of Brahmaputra lies outside India yet it is one of the most important rivers in India. It is lifeline of north-eastern India. Economies of the north-eastern states revolve around Brahmaputra. From where does Brahmaputra originate?
- A) Pir Panjal ranges B) Karakoram ranges
 - C) Tibet D) Ladakh
- Q47. Maulana Abul Kalam Azad was India's first Education Minister. He was a significant leader of the freedom struggle too. National Education Day is celebrated every year to commemorate this legend on which day?
- A) 11th March B) 11th December
 - C) 11th November D) 11th January
- Q48. The Old Regime of French society refers to the society and institutions of France prior to 1789. The political system of France was a monarchy in this regime. Which of the following was/were the characteristics of the Old Regime of France?
- A) King's censors approved/disapproved all written materials.
 - B) Written materials were available without censorship.
 - C) Self-censorship was prevalent.
 - D) None of the above.
- Q49. Which is not a feature of summer season in India?
- A) Dust storms are common during May.
 - B) A Striking feature of this season is the 'loo'.
 - C) Temperature decreases from south to the north.
 - D) Due to the north ward movement of the sun, the global heat belt shifts northwards.

- Q50. Identify the type of forests in India on the basis of given information:-
 i) Most wide spread forests of India.
 ii) Rainfall between 200 and 70cm
 iii) Teak is the most dominant species
 A) Tropical Evergreen forests B) Tropical Deciduous forests
 C) Montane forests D) Mangrove forests
- Q51. Which factor did not contribute to France's Pre – revolution debt?
 A) The seven year war B) The cost of maintain the army
 C) Upkeep at Versailles D) High tariffs on imported goods
- Q52. All of the following were groups involved in the Russian civil war except.
 A) The Reds B) The Whites C) The Blues D) The Greens
- Q53. Which of the following rivers in India is shared by large number of states?
 A) Mahanadi B) Krishna C) Cauvery D) Godavari
- Q54. When was first Jawahar Navodaya Vidyalaya established?
 A) 1985 B) 1986 C) 1987 D) 1988
- Q55. Where is the headquarter of FAO?
 A) Geneva B) Rome C) Paris D) New York
- Q56. Can PIL filed in district court?
 A) Yes B) No C) In some situation D) With the permission of the court
- Q57. Which of the following was elected as the temporary president of the constituent assembly?
 A) Dr. Rajendra Prasad
 B) Jawahar Lal Nehru
 C) HC Mukherjee
 D) Dr. Sachchidanad Sinha
- Q58. Consider the following related to the impact of La-Nina
 i) Drought in Ecuador and Peru
 ii) Heavy floods in Australia, Good rain in India.
 A) Only I B) Only II C) Both I and II D) neither I nor II
- Q59. Which of following state has got largest forest cover in terms of percentage with respect in its geographical area?
 A) Assam B) Sikkim C) Tripura D) Mizoram
- Q60. Which of the following writs can be used against a person believed to be holding a public office to which he is not entitled to?
 A) Habeas corpus B) mandamus C) Prohibition D) Quo Warranto

English (20 Marks)

- Q61. The teacher said, "Let it be a rectangle." (**Change into indirect speech**)
A) The teacher said that it was a rectangle. B) The teacher supposed it to be a rectangle.
C) The teacher said that it would be a rectangle. D) The teacher said that it is a rectangle.
- Q62. "Don't worry, for I am there to help you," He said to me. (**Change into indirect speech**)
A) He urged me not to worry, for he was there to help me.
B) He forbade me not to worry, for he was there to help me.
C) He asked me not to worry and said that he was there to help me.
D) None of them.
- Q63. The contract did not include free transport. (**Change into passive voice**)
A) Free transport was not included by the contract.
B) Free transport is not included in the contract.
C) Free transport was not included in the contract.
D) Free transport is not included by the contract.
- Q64. He likes people to flatter him. (**Change into passive voice**)
A) People are liked to flatter him. B) People are liked to be flattered.
C) He likes to be flattered. D) None of them.
- Q65. **Choose the one option that best expresses the meaning of the given idiom/phrase:** 'To keep body and soul together'
A) to die B) to achieve enlightenment C) to get ill D) to stay alive
- Q66. **Choose the one option that best expresses the meaning of the given idiom/phrase:** 'Dark horse'
A) an unexpected winner B) loser C) breed of horse D) an intelligent man
- Q67. **Identify the underlined clause by choosing the best option :**
The news that my brother has passed gives me much pleasure.
A) Noun clause B) Adjective clause C) Adverb clause D) Principal clause
- Q68. **Identify the underlined clause by choosing the best option :**
If you repeat a word eight or ten times, it will be yours for life.
A) Noun clause B) Adjective clause C) Adverb clause D) Principal clause
- Fill the gaps choosing the best option : (Q69. to Q80.)**
- Q69. I do not want to eat more rice.
A) much B) few C) any D) little
- Q70. I have money in my pocket. We can have ice cream at the Nirulas.
A) little B) a little C) few D) a few

- Q71. Meera her English lesson last night when her father came in.
 A) studied B) has studied C) had been studying D) was studying
- Q72. The snail slowly moved the edge of the field.
 A) at B) into C) through D) along
- Q73. An amendment was made the act.
 A) of B) to C) for D) through
- Q74. He is knowledgeable inefficient.
 A) and B) but C) so D) nor
- Q75. He said, "If you don't do it, you be fined."
 A) will B) may C) can D) shall
- Q76. I stay back last evening for an important meeting.
 A) should B) could C) have to D) had to
- Q77. I have no money, I can not buy the book.
 A) Although B) Though C) Since D) Unless
- Q78. rich, she can afford expensive holidays.
 A) Being B) Been C) Be D) To be
- Q79. is worth ambition.
 A) Reign B) To reign C) Reigning D) Reigned
- Q80. These students their medical check-up.
 A) have B) has had C) have had D) have to

(Space for rough work)

(Space for rough work)

THANK YOU FOR BELIEVING IN US!

**X CLASS
TOPPER**

VINAYAK

**99.2% IN CLASS X
CBSE BOARD EXAMINATION 2022**

**XII CLASS
TOPPER**



SANYAM BANSAL

**99.8% IN CLASS XII
CBSE BOARD EXAMINATION 2022**

SANYAM BANSAL

**1ST
RANK**

**1ST RANK, INTERNATIONAL COMMERCE
OLYMPIAD, CTF, DELHI**

**1ST RANK- ICAI, COMMERCE WIZARD
(REWARDED WITH RS. 1 LAC BY THE GOVT. OF INDIA)**

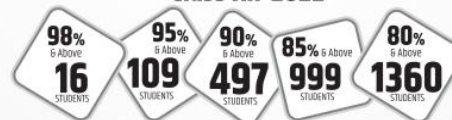
1ST RANK (STATE)-STSE, RAJASTHAN

Class X-2022



**TOTAL
MERITS
2151**

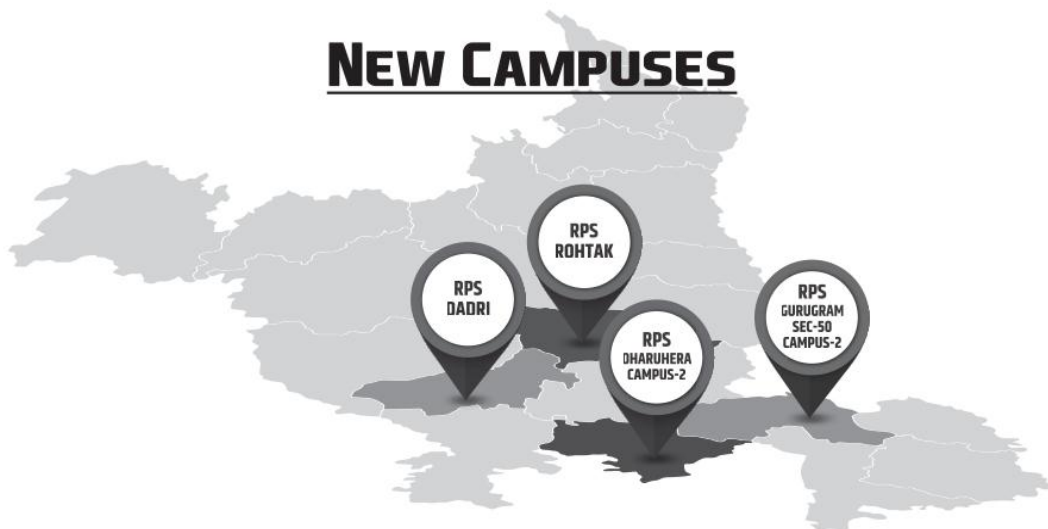
Class XII-2022



**TOTAL
MERITS
1887**

WE ARE SPREADING OUR WINGS

NEW CAMPUSES



New Campuses

Dharuhera Campus -2 Ph.: 9467064534 | **Rohtak** Ph.: 7419998800 | **Dadri** Ph.: 8222048283, 84 | **Gurugram Sec-50 Campus 2:** 8409989898

Mahendergarh Ph.:01285-222645, 9416150201 | **Rewari** Ph.:8222000359 | **Rewari City** Ph.:9053555526 | **Dharuhera** Ph.:9467064534 | **Kosli** Ph.:9255148141 | **Behror** Ph.:9529678004 | **Narnaul** Ph.:01282-248014, 8198976666 | **Hansi** Ph.:9813196969, 9896100407 | **Gurugram Sec- 50** Ph.:8409989898, 7827466258 | **Gurugram Sec- 89** Ph.:8222999182 | **Hisar** Ph.:8307760465 | **Karnal** Ph.:8398000304/06

Top-Notch **Hostel Accommodation** for **Boys and Girls** in M/GARH, BEHROR, KOSLI & HANSI CAMPUSES