RPS GROUP OF SCHOOLS

ADMISSION–*Cum*–SCHOLARSHIP TEST

For Grade III to XI

Sunday, 1st January 2023

APPEARING FOR CLASS VIII

SCHOLARSHIP ASPIRANTS TODAY
VICTORS IN LIFE TOMORROW !

At RPS *Excellence is a* HABIT

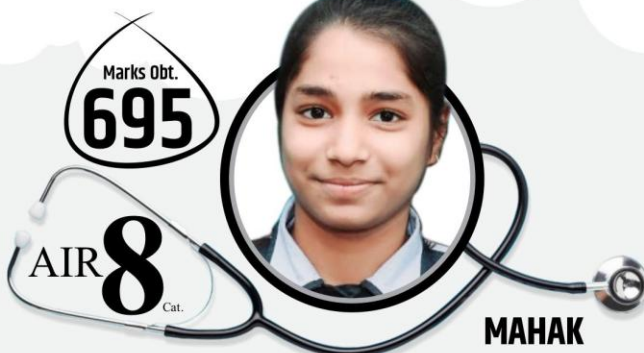**NEET TOPPER**

IIT-JEE TOPPER

Above 600 Marks
45+ STUDENTS

Above 550 Marks
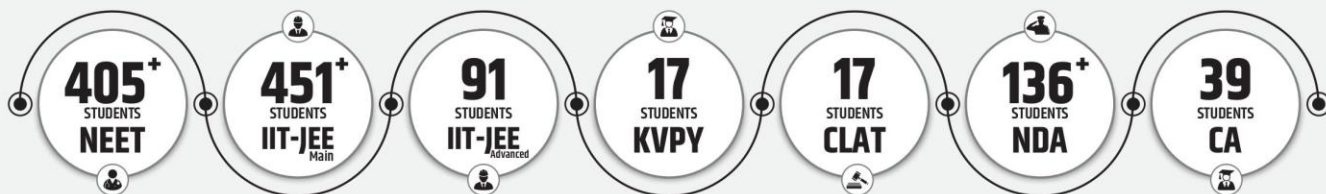**91+** STUDENTS

Total Qualifiers
405+ STUDENTS

Marks Obt.
695

AIR **8** Cat.

MAHAK

AIR **42** Cat.

AAYUSH

OUR RESULTS SPEAK LOUDER THAN WORDS

SESSION 2022–23

| 405+ STUDENTS NEET | 451+ STUDENTS IIT-JEE Main | 91 STUDENTS IIT-JEE Advanced | 17 STUDENTS KVPY | 17 STUDENTS CLAT | 136+ STUDENTS NDA | 39 STUDENTS CA |

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.**
6. Correct Method   Wrong Method

Science (20 Marks)

Physics (07 Marks)

1.   The good absorber of heat are –

(a) Non emitter   (b) Good emitter   (c) Poor emitter   (d) Highly polished

2.   Slope of velocity – time graph represents a quantity which has the unit

(a) m^2 (b) ms^{-2} (c) m^3 (d) ms^{-1}

3.   Two cyclists, k km apart, and starting at the same time, would be together in r hours if they travelled in the same direction, but would pass each other in t hours if they travelled in opposite directions. The ratio of the speed of the faster cyclist to that of the slower is.

(a) $\dfrac{r+t}{r-t}$ (b) $\dfrac{r}{r-t}$ (c) $\dfrac{r+t}{r}$ (d) $\dfrac{r}{t}$

4. Match the following

    (i) Horse shoe magnet   (a) Holds the armature in place

    (ii) Armature   (b) Electromagnet

    (iii) Spring strip   (c) Passes electric current to the spring strip

    (iv) Adjusting screw   (d) Fixed to the spring strip

    (a) i –d, ii-a, iii- c, iv- b   (b) i-a, ii- c, iii- b, iv- b

    (c) i- b, ii-d, iii-a, iv- c   (d) i- c, ii-b, iii-d, iv-a

5. Arrange the following speeds in the decreasing order

    (A) A boy moving on a bicycle with a speed of 18 km/h

    (B) a fast runner running with a speed of 10 m/s

    (C) A scooter moving with a speed of 800 m/min.

    (a) C > B > A   (b) B > C > A   (c) A > B > C   (d) C > A > B

6. There is a .... limit on the current which can safely flow through a ....

    (a) Minimum, Building   (b) Maximum, Building

    (c) Minimum, Circuit   (d) Maximum, Circuit

7. How many images will be formed if two plane mirrors are fitted on adjacent wall and one mirror on roof ?

    (a) 2   (b) 5   (c) 7   (d) 10

Chemistry (07 Marks)

8. Study the reaction given below –

    Copper sulphate + Iron $\rightarrow$ Iron sulphate + Copper

    What kind of change takes place in the given reaction ?

    (a) Chemical change   (b) Physical change

    (c) biochemical   (d) Both a and b

9. Which of the following is an antacid ?

    (a) $Mg(OH)_2$ (b) NaOH   (c) H_2SO_4 (d) H_2O

10. What is the chemical formula of caustic soda ?

    (a) $Mg(OH)_2$ (b) KOH   (c) $Ca(OH)_2$ (d) NaOH

11. Identify the only base which does not have a metal in its molecule.

    (a) NaOH   (b) NH_4OH (c) $Mg(OH)_2$ (d) $Ca(OH)_2$

12 How are sea and Land breezes caused ?

    (a) through convection currents   (b) through cyclones

    (c) through rain   (d) through conduction

13. From where do the Monsoon winds came to India ?

(a) Northeast   (b) Northwest   (c) Southeast   (d) Southwest

14. Which of the following is used to disinfectant the clean water in a sewage treatment plant before releasing it into the distribution system.

(a) Iodine   (b) Ozone   (c) Oxygen   (d) All of these

Biology (06 Marks)

15 Which of the following options is correct with regard to blood circulation ?

(a) Lungs $\rightarrow$ Left ventricle $\rightarrow$ Left atrium $\rightarrow$ Body tissues $\rightarrow$ Right ventricle $\rightarrow$ Right atrium $\rightarrow$ Lungs

(b) Body tissues $\rightarrow$ Left ventricle $\rightarrow$ Left atrium $\rightarrow$ Lungs $\rightarrow$ Right ventricles $\rightarrow$ Right atrium $\rightarrow$ Body tissues.

(c) Body tissues $\rightarrow$ Left atrium $\rightarrow$ Left ventricle $\rightarrow$ Lungs $\rightarrow$ Right atrium $\rightarrow$ Right ventricle $\rightarrow$ Body tissues.

(d) Lungs $\rightarrow$ Left atrium $\rightarrow$ Left ventricle $\rightarrow$ Body tissues $\rightarrow$ Right atrium $\rightarrow$ Right ventricle $\rightarrow$ Lungs

16. Study the following features :

(i) Flowers are small and dull   (ii) Flowers do not produce nectar

(iii) Pollen grains are light weight   (iv) Stamens and stigmas are exposed

Above cited features are the characteristics of flowers in which pollination is brought about by the agency of

(a) wind   (b) bird   (c) insect   (d) all of these

17. Which of the following equations correctly represents the process of photosynthesis ?

(a) Carbon dioxide + Water $\xrightarrow[chlorophyl]{sunlight}$ carbohydrates + Proteins

(b) Carbon dioxide + Carbohydrates $\xrightarrow[Chlorophyl]{sunlight}$ oxygen + water

(c) Carbon dioxide + water $\xrightarrow[Chlorophyl]{sunlight}$ Carbohydrates + Oxygen

(d) Oxygen + water $\xrightarrow[Chlorophyl]{sunlight}$ carbon dioxide + Carbohydrates

18. In humans, the process of digestion begins in the **I** where food is broken down into small pieces by the teeth. The **II** in the mouth secrete saliva which contains an enzyme called **III**. This enzyme changes **IV** to sugars. Read the above paragraph and select the correct option for **I, II, III** and **IV**

|	I	II	III	IV
(a)	Mouth	Tongue	Salivary gland	Starch
(b)	Buccal cavity	Salivary gland	Salivary amylase	Starch
(c)	Mouth	Salivary glands	Pepsin	Proteins
(d)	Stomach	gastric glands	pepsin	Proteins

19. Refer to the given food chain
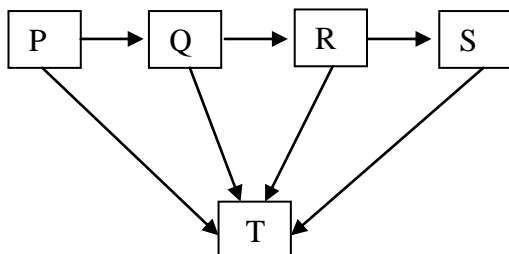
Identify P-T and select the incorrect statement.

(a) All the organisms of the food chain depend on P directly or indirectly for food.

(b) Q and R in the given food chain are herbivore and carnivore respectively.

(c) T helps in keeping our environment clean and in Recycling of nutrients.

(d) S obtains its food directly from the plants and is called primary consumer.

20. Identify the labels (1, 2 and 3) in the given figure showing exchange of gases between alveoli and blood capillaries. Select the correct option.

	1	2	3
(a)	CO_2	O_2	RBCs
(b)	O_2	CO_2	RBCs
(c)	RBCs	O_2	CO_2
(d)	CO_2	RBCs	O_2
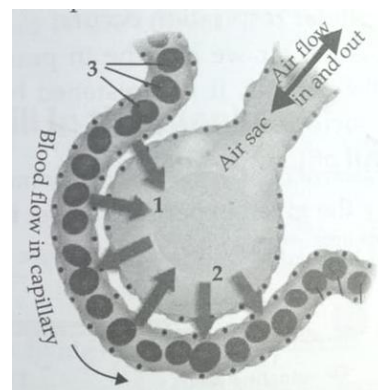
Mathematics (20 Marks)

21. If one angle measures 10^0 more than its complement, then the measure of the angle is

(a) 40^0 (b) 55^0 (c) 35^0 (d) 50^0

22. $\angle A$ and $\angle B$ are complementary angles. If $\angle A = (3x+4)^0$ and $\angle B = (x+18)^0$, then

(a) $\angle A$ is acute   (b) $\angle A$ is obtuse   (c) $\angle A = \angle B$ (d) $\angle A < \angle B$

23. If the dimensions of a rectangle are 15 m and 8 m, then the length of a diagonal is

(a) 7 m   (b) 23 m   (c) 17 m   (d) 20 m

24. If in an isosceles triangle, each of the base angle is 40^0, then the triangle is

(a) Right angled triangle   (b) Acute angled triangle

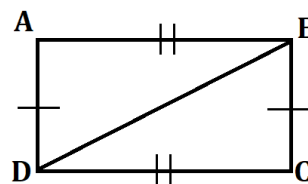(c) Obtuse angled triangle   (d) Isosceles right angled triangle

25. In the adjoining figure equal sides are marked. Which of the following triangles are congruent ?

    (a) $\Delta\,ADB \cong \Delta\,DCB$

    (b) $\Delta\,ADB \cong \Delta\,CBD$

    (c) $\Delta\,BDA \cong \Delta\,BDC$

    (d) $\Delta\,DAB \cong \Delta\,DCB$

26. If $\angle D = \angle P$, $\angle E = \angle Q$ and DE = PQ, then $\Delta\,DEF \cong \Delta\,PQR$, by congruence rule.

    (a) SAS   (b) ASA   (c) SSS   (d) RHS

27. If the area of a parallelogram is 54 cm^2 and the length of one side is 7.5 cm, then the corresponding height is

    (a) 7. 2 cm   (b) 14.4 cm   (c) 3.6 cm   (d) 13.5 cm

28. A piece of wire is bent in the shape of an equilateral triangle of side 4.4 cm. If this wire is rebent to form of a circle, find the radius and area of the circle.

    (a) 21 cm, 1386 cm^2 (b) 2.1 cm, 1386 cm^2

    (c) 21 cm, 13.86 cm^2 (d) 2.1 cm, 13.86 cm^2

29. The mean height of 10 students is 151.8 cm. Two more students of heights 157.6 cm and 154.4 cm join the group. What is the new mean height ?

    (a) 152.5 cm   (b) 151.8 cm   (c) 150 cm   (d) 152 cm

30. The mean of 6 observations is 17.5. If five of them are 14, 9, 23, 25 and 10, find the sixth observation.

    (a) 22   (b) 24   (c) 23   (d) 25

31. The length of a rectangle is 3a – 4b + 6c and the perimeter is 7a + 8b + 17c, find breadth of rectangle.

    (a) 5a + 8b + 2c   (b) 0.5 a + 4 b + 2.5 c

    (c) 0.5a + 8b + 2.5 c   (d) 0.5a + 18b + 3c

32. What should be subtracted from $2x^2y - 3xy + 5xy^2 - 13$ to get $3x^2y + 4xy - 6xy^2 + 18$

    (a) $-x^2y + 7xy - 11xy^2 - 31$ (b) 0

    (c) $x^2y + 7xy + 11xy^2 + 31$ (d) $-x^2y - 7xy + 11xy^2 - 31$

33. A sum of Rs. 1600 gives a simple interest of Rs. 252 in 2 years and 4 months. The rate of interest per annum is :

    (a) 6 %   (b) $6\dfrac{1}{2}$%   (c) $6\dfrac{1}{4}$%   (d) $6\dfrac{3}{4}$%

34. By selling a ceiling fan for Rs. 475. A dealer loses 5 %. To get a gain of 5 %, he should sell the fan for

(a) Rs. 575.00   (b) Rs. 522.50   (c) Rs. 525.00   (d) Rs. 498.75

35. Find x so that $\left(\dfrac{2}{3}\right)^{-2} \times \left(\dfrac{2}{3}\right)^{-9} = \left(\dfrac{2}{3}\right)^{2x+1}$

(a) –6   (b) –8   (c) 6   (d) 8

36. Evaluate : $\left[\left(\dfrac{2}{3}\right)^{-1} \times \left(\dfrac{3}{4}\right)^{-1}\right]^{-1}$

(a) 1   (b) $\dfrac{1}{2}$ (c) 2   (d) $\dfrac{3}{8}$

37. The solution of the equation $\dfrac{3x-1}{4} = \dfrac{2x+5}{3}$

(a) 1   (b) – 23   (c) –1   (d) 23

38. If the sum of two numbers is 39 and their difference is 15, then the numbers are

(a) 17, 22   (b) 27, 12   (c) 26, 13   (d) 28, 11

39. Find the value of $\left(\dfrac{2}{3} \times \dfrac{15}{-16}\right) - \left(\dfrac{7}{12} \times \dfrac{-24}{35}\right)$

(a) $\dfrac{9}{40}$ (b) $\dfrac{41}{40}$ (c) $\dfrac{-9}{40}$ (d) $\dfrac{-41}{40}$

40. The difference between the greatest and the least of $\dfrac{-5}{9}, \dfrac{2}{9}, \dfrac{-4}{9}$ is

(a) $\dfrac{-1}{3}$ (b) $\dfrac{-2}{9}$ (c) –1   (d) $\dfrac{7}{9}$

Social Science (20 Marks)

41. The historical works written by the Ahoms were known as ....

(a) Khels   (b) Buranjis   (c) Akbarnama   (d) Garha Katanga

42. Who was the saint of Virashaivism movement ?

(a) Tulsidas   (b) Surdas   (c) Basavanna   (d) Ramanuja

43. Who said "They are vaishnavas who understand the pain of others"?

(a) Narsi Mehta   (b) Mirabai   (c) Shankara   (d) Kabir

44. Who wrote 'Kitab –ul-Hind' ?

(a) Minaj –i-siraj   (b) Abul fazal   (c) Amir Khusrau   (d) Al-Biruni

45. Who said "It is disgraceful to live at the cost of one's self –respect. Self respect is the most vital factor in life".

(a) B. R Ambedkar   (b) Jawaharlal Nehru

(c) Mahatma Gandhi　　　　　　　　　(d) Sarojini Naidu

46. Whose autobiography is 'Amar Jiban' ?

(a) Ramabai　　　　　　　　　　(b) Rashsundari Devi

(c) Rokeya Sakhawat Hossain　　　　(d) None of these

47. Who is the head of a state government ?

(a) President　　　(b) Prime Minister　　　(c) Governor　　　(d) None of these

48. Fossils are found in .... rocks.

(a) Metamorphic　　　(b) Sedimentary　　　(c) Igneous　　　(d) All of above

49. Which of the following is a cold ocean current ?

(a) The Labrador　　　(b) Gulf stream　　　(c) Kuroshio　　　(d) Auglhas

50. .... is a seasonal movement of people.

(a) Regional　　　(b) Transhumance　　　(c) waterways　　　(d) Eskimos

51. Who was the founder of the Chola dynasty ?

(a) Vijayalaya　　　(b) Harshavardhana　　　(c) Shri satakarni　　　(d) None of these

52. By which name was Rajasthan known in the nineteenth century ?

(a) Raj Bhoomi　　　(b) Raj Gharana　　　(c) Rajputana　　　(d) Ran Bhoomi

53. When was the Third Battle of Panipat fought ?

(a) 1507　　　(b) 1556　　　(c) 1701　　　(d) 1761

54. Who composed 'Ramcharitmanas' ?

(a) Namdav　　　(b) Tulsidas　　　(c) Surdas　　　(d) Kabir

55. Which book did Omprakash Valmiki write ?

(a) Sangam literature　　　　　　(b) Joothan

(c) Lilatilakam　　　　　　　　(d) All the above

56. In which state is Erode cloth market situated ?

(a) Haryana　　　(b) Tamil Nadu　　　(c) Madhya Pradesh　　　(d) West Bengal

57. What is the minimum age to become the member of Legislative Assembly ?

(a) 18　　　(b) 20　　　(c) 21　　　(d) 25

58. The features of the desert is/are –

(a) Dry climate　　　　　　　　(b) Extreme temperature

(c) Scanty Vegetation　　　　　　(d) All the above

59. The region located between the Tropic of Cancer and Tropic of Capricorn is called –

(a) Tropical region　　　　　　(b) Temperate region

(c) Cold region　　　　　　　　(d) Dry region

60. All type of weather phenomenas occur in –

(a) Troposphere　　　(b) Stratosphere　　　(c) Mesosphere　　　(d) Thermosphere

61. Mohini, ... book you had borrowed, has come to take it.

(a) who   (b) whom   (c) that   (d) whose

62. I went to .... hospital for treatment of chronic cough.

(a) a   (b) an   (c) the   (d) No article

63. This is .... eucalyptus tree.

(a) a   (b) an   (c) the   (d) No article

64. **All** that glitters is not gold. (Identify the underlined word)

(a) Noun   (b) Pronoun   (c) Adjective   (d) Adverb

65   What is the superlative degree of 'Perfect'.

(a) Perfectest   (b) The most perfect

(c) Perfecter   (d) Does not have superlative form

66. The woman **is** very attractive. (State the type of verb.)

(a) Lexical verb   (b) Auxiliary verb   (c) Non- finite verb   (d) Helping verb

67. I, who .... poor, cannot afford an android phone.

(a) are   (b) is   (c) am   (d) has

68. Mrs. Shalini .... yoga for many years.

(a) is teaching   (b) was teaching   (c) has been teaching   (d) teaches

69. .... that he were here!

(a) Should   (b) Would   (c) Could   (d) May

70. Mother said to Rosy, "How beautifully you sang!"

(a) Mother exclaimed with great delight that how beautifully you sang.

(b) Mother exclaimed with great delight whether how beautifully you sang.

(c) Mother said to Rosy that she sings beautifully.

(d) Mother exclaimed with great delight that Rosy had sung beautifully.

71. **None** of these workers is honest. (Identify the underlined word)

(a) Noun   (b) Pronoun   (c) Adjective   (d) Adverb

72. I have hardly .... knowledge of her activities.

(a) some   (b) much   (c) many   (d) any

73. What is the comparative degree of 'Complete' ?

(a) More complete   (b) Most complete

(c) Completer   (d) No comparative degree

74. One of my cousins .... chess very well.

(a) plays   (b) play   (c) is play   (d) none of these

75. Either he or I .... wrong.

    (a) is   (b) are   (c) am   (d) none of these

76. Water .... at zero degree Celsius.

    (a) freeze   (b) freezes   (c) freezed   (d) frozen

77. I .... just .... cooking.

    (a) am finishing   (b) have finished   (c) has finished   (d) have finish

78. I do not like her.   (change the voice.)

    (a) She did not liked by me.   (b) She do not liked by me.

    (c) She does not liked by me .   (d) She is not liked by me.

79. Uneasy lies the head **that wears a crown**.   (State the type of underlined clause.)

    (a) Noun clause   (b) Adjective clause

    (c) Main clause   (d) Adverb clause

80. Choose the correct spelling.

    (a) Acquiatance   (b) Acquiantance   (c) Acquaintance   (d) Accquaintance

(Space for rough work)

(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
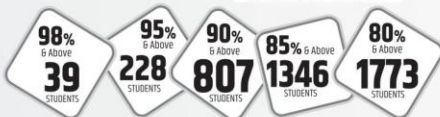
XII CLASS TOPPER

SANYAM BANSAL

SANYAM BANSAL

1ST RANK

1ST RANK, INTERNATIONAL COMMERCE OLYMPIAD, CTF, DELHI

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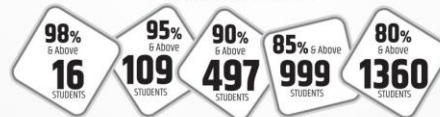(REWARDED WITH RS. 1 LAC BY THE GOVT. OF INDIA)

1ST RANK (STATE)—STSE, RAJASTHAN

99.8% IN CLASS XII
CBSE BOARD EXAMINATION 2022

Class X-2022

98% & Above	95% & Above	90% & Above	85% & Above	80% & Above	TOTAL MERITS
39 STUDENTS	228 STUDENTS	807 STUDENTS	1346 STUDENTS	1773 STUDENTS	2151

Class XII-2022

98% & Above	95% & Above	90% & Above	85% & Above	80% & Above	TOTAL MERITS
16 STUDENTS	109 STUDENTS	497 STUDENTS	999 STUDENTS	1360 STUDENTS	1887

WE ARE SPREADING OUR WINGS

NEW CAMPUSES

RPS ROHTAK

RPS DADRI

RPS DHARUHERA CAMPUS-2

RPS GURUGRAM SEC-50 CAMPUS-2
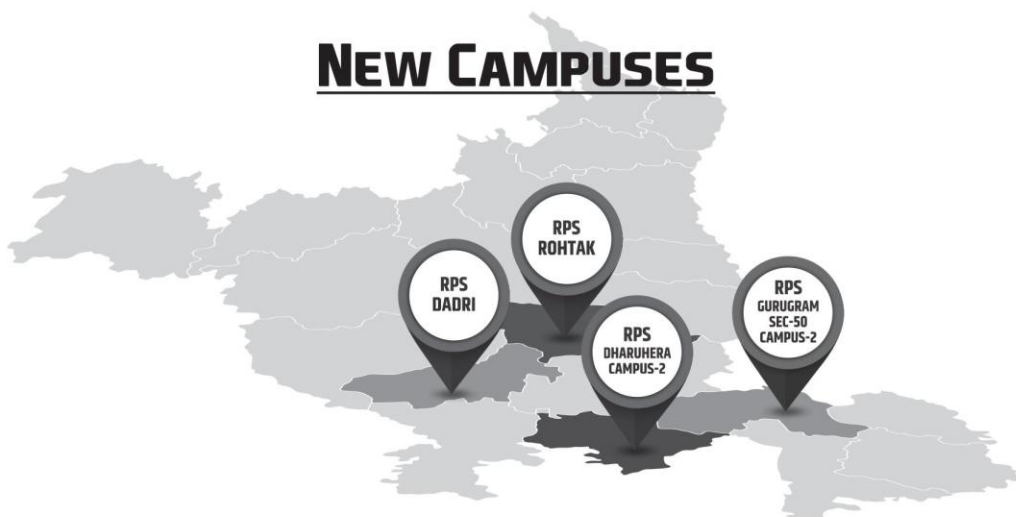
New Campuses
Dharuhera Campus -2 Ph.: 9467064534 | **Rohtak** Ph.: 7419998800 | **Dadri** Ph.: 8222048283, 84 | **Gurugram Sec-50 Campus 2:** 8409989898

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