N G S F

NGSE

CLASS 5	Time : 90 Minutes	**National Genius Search Examination® : Advanced**

Your NGSE Roll No. ⬚⬚⬚⬚⬚⬚⬚ Date of the Test ⬚⬚⬚⬚⬚⬚⬚

Student's Name ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚

Signature of the Student	Signature of the Invigilator Check the correctness of the Roll No. with the Answer Sheet.

INSTRUCTIONS TO THE CANDIDATE

1. **DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO.**

2. Fill and sign this Question Booklet. Fill the information required in first page of the Answer Booklet. Start your answers from the third page of the Answer Sheet. Do not write answers on the second page of the Answer Sheet, which is kept blank. You may carry this booklet with you after the scheduled time of the test.

3. Do not seek clarification on any item in the test booklet from anyone including the test invigilator or the center supervisor. Use your best judgement.

4. This booklet consists of two sections as given below :
   SECTION-1: MATHEMATICS – 5 Questions and **SECTION - 2: SCIENCE – 5 Questions.** In case of any problem with your test booklet, inform the invigilator immediately. You will be provided with a replacement.

5. Use black/blue ball point pen only for writing the answers.

6. Use of mathematical instruments/compass box is allowed. Standalone calculators are also allowed.

7. All questions are compulsory. Each question carries 10 marks. Negative marks are not awarded.

8. Each answer should not be more than 150 words. You may demand additional Answer sheets if required.

9. Staple all the answer sheets together, page wise.

10. Failure to follow instructions and examination norms will lead to disqualification.

PLEASE WAIT FOR THE SIGNAL TO OPEN THE TEST BOOKLET

Open from this side ⟶

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SECTION – 1: MATHEMATICS

1. State a pattern and create a rule for the pattern. Explain the created pattern and rule below.

2. Draw 5 shapes with straight edges and identify each shape.

3. The green triangle is bigger than the blue one. Can we say that $\frac{1}{7}$ th of the green triangle is bigger than $\frac{1}{7}$ th of the blue triangle? Explain why it is so?

4. 16 identical squares are given to you. How many ways you can create rectangles using all the 16 squares at a time? Draw all the possible rectangles.

5. Wisden has 125 cubes of side 1 cm. What should be the volume of a cube which can contain all the 125 small cubes exactly in it without leaving any space. Show your workings.

SECTION – 2: SCIENCE

6. Write a brief biography of a mosquito and her activities.

7. Explain why boiled egg takes more time to digest than a raw egg?

8. Explain how earthquakes are responsible for tsunami?

9. How water is wasted? What are the ideas you have to minimize the wastage of water?

10. What are the consequences if all the farmers were to use only one kind of seed and grow only one kind of crop?

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