TEST CODE :

NGSE

CLASS 4   Time : 90 Minutes   **National Genius Search Examination® : Mains**

Your NGSE Roll No ⬜⬜⬜⬜⬜⬜⬜⬜   Student's Signature _____

Student's Name ⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜

INSTRUCTIONS TO THE CANDIDATE

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

2. Fill and sign the Question Booklet. You may carry this booklet with you after the scheduled time of the test.

3. Fill the information required in the answer sheet. Answer sheets with incomplete information may not be evaluated.

4. 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.

5. This booklet consists of three sections as given below :
   SECTION-1 : MATHEMATICS – 25 Questions, **SECTION-2 : SCIENCE** – 25 Questions and **SECTION-3 : GENERAL KNOWLEDGE** – 10 Questions.
   In case of any problem with your test booklet, inform the invigilator immediately. You will be provided with a replacement.

6. Use of standalone calculator is allowed. Mobile phones are strictly prohibited.

7. Use **BLACK/BLUE BALL POINT PEN** only for marking answers on the OMR sheet. Do not use fountain/gel based pens or pencils. Remember that you cannot erase/white ink and re-shade the bubbles.

8. Each question carries 2 marks. Questions 1 to 60 have only **one correct answer.** To score full marks for each question, bubbles for all the right answer options should be shaded. Shading one or more wrong bubble/s make the answer wrong. No negative marks are allotted to wrong answers.

9. Use the margin in the test booklet for rough work. No other piece of paper is permitted to be used for rough work. Failure to follow instructions and examination norms will lead to disqualification.

10. ADMIT CARD should be returned to the invigilator with your answer sheet.
    PLEASE WAIT FOR THE SIGNAL TO OPEN THE TEST BOOKLET
   Open from this side ⟶

Important Note: **Questions from 1 to 60 have only one right answer. To score full marks for each question, bubble for the right answer option should be shaded. Shading more than one bubble or a wrong answer bubble makes the answer wrong. No marks are given for wrong answers.**

SECTION 1: MATHEMATICS

01. Wisden, Tony, and Vidya have some cookies. Wisden has 6 cookies. He has 2 more cookies than Tony and 1 less cookie than Vidya. How many cookies do they have altogether?
    (a) 18   (b) 17   (c) 16   (d) 8

02. Richa comes from school and have her lunch. Then she sits for studying. She started reading English lesson at 3:05 and finishes at 6:45. How long did Richa read for?
    (a) 2 hours 50 minutes   (b) 3 hours 20 minutes
    (c) 3 hours 40 minutes   (d) 2 hours 40 minutes

03. If 600 ÷ A = 300, what is A?
    (a) 200   (b) 30   (c) 20   (d) 2

04. Wisden caught 6 ladybugs. Tony caught 7 and Vidya caught 5. The children put some of their ladybugs in a big jar. The jar then had 8 ladybugs. How many ladybugs were not placed in the jar?
    (a) 12   (b) 10   (c) 13   (d) 15

05. Wisden, Ryan, Vidya, and Tony were comparing their heights. Use the table and facts to answer the question.
    Facts:
    Wisden is the shortest.
    Vidya is two inches taller than Wisden.
    Tony is taller than Vidya.
    How tall is Ryan?

	55 inches	56 inches	57 inches	58 inches
Wisden				
Ryan				
Vidya				
Tony				

    (a) 55 inches   (b) 57 inches   (c) 58 inches   (d) 56 inches

06. The students in your class collected empty plastic cans to raise money for a class trip. The goal for each student was to collect 150 plastic bottles each. There are 27 students in your class. How many plastic bottles would that be altogether?
    (a) 177 bottles   (b) 405 bottles   (c) 4050 bottles   (d) 1350 bottles

07. Which among the following is an improper fraction?
    (a) 3/2   (b) 4/7   (c) 2/5   (d) 1/4

08. Vidya was writing an article for the school newspaper about the amount of homework the teachers were assigning. She was surprised to find out that the average student only spent 20 minutes per night doing homework. To make it sound longer, she decided to convert the time from minutes to seconds in the article. How many seconds did an average student spend on homework?
(a) 80 seconds   (b) 120 seconds   (c) 800 seconds   (d) 1200 seconds

09. Round 193 to the nearest hundred.
(a) 200   (b) 190   (c) 210   (d) 100

10. There are 4 red cars, 5 blue cars, and 2 green cars in the parking lot. What is the fraction of blue cars in the parking lot?
(a) 5/4   (b) 5/9   (c) 5/11   (d) 11/5

11. Richa pays Rs. 90 for each trading card she buys. She sells each card for Rs. 110. How much money will she make if she sells 9 trading cards?
(a) 180   (b) 190   (c) 110   (d) 90

12. Richa planned to buy a wall paper border for her bedroom. She measured the lengths of the walls and found the perimeter of her room. Use the picture below to determine the perimeter.

15 m

9 m
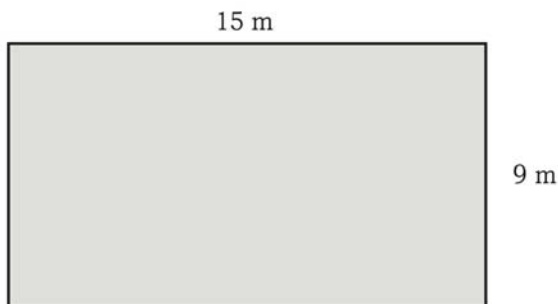
(a)   48 m

(b)   39 m

(c)   33 m

(d)   24 m

13. Quana's user ID is a 5-digit number. In the ID, 9 is in the ten thousands place; 0 is in ones place. 8 is in the thousands place; 4 is in the tens place. 2 is in the hundreds place. What is her user ID?
Draw a place value chart if you need help.
(a) 90842   (b) 98240   (c) 89204   (d) 98420

14. Tony played 4 games of candy crush each week for 5 weeks. How many games did he play?

(a)   4 + 5= 9

(b)   5+ 4 = 9

(c)   4 x 5 = 20
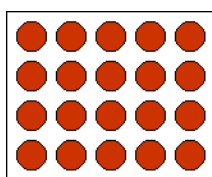
(d)   5 x 4 = 25

15. Which of the following could have a face in the shape of a triangle?
(a) Cone   (b) Prism   (c) Sphere   (d) Cylinder

16. Look at the table:

Toppings	Number of Votes
Cheese	3
Pepperoni	6
Sausage	4
Mushrooms	0
Onions	1

Vidya is having some friends who love eating pizza. She surveyed about toppings they would like on their pizza.
What can Vidya most likely conclude from her survey?
(a) More of her friends like cheese than pepperoni pizza.
(b) Sausage is the group's second-favorite type of pizza.
(c) A pizza with both pepperoni and mushrooms should be ordered.
(d) She needs to order only one onion

17. A square piece of paper has been cut into three pieces. Two of them are shown in the picture:
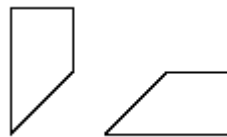
Which of the pieces below is the third one?

(a) (b) (c) (d)

18. Wisden was playing a video game at a mall. Before his last turn he had a total of 5389 points. At the end of his game the digit 3 in the total points had changed to 6. How many points did Wisden get on his last turn?
(a) 30   (b) 25   (c) 300   (d) 255

19. How can the number represented in the given abacus be written in the Indian system? Use the following information to answer the question.
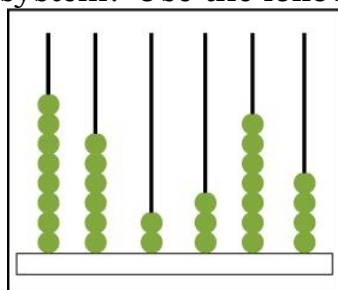
(a)   762354

(b)   852364

(c)   762345

(d)   862374

20. Tony can choose 3 different ice cream flavours: chocolate, vanilla and strawberry. He can also choose 3 different cones: waffle, regular or sugar. How many different combinations can Tony make by choosing one cone and one ice cream flavour?

04

(a) 3   (b) 6   (c) 9   (d) 12

21. What are the missing numbers in the given number line?

4050 4150 ? 4350 4450 4550 4650 ? 4850 4950 5050 ? 5250 5350 ? 5550
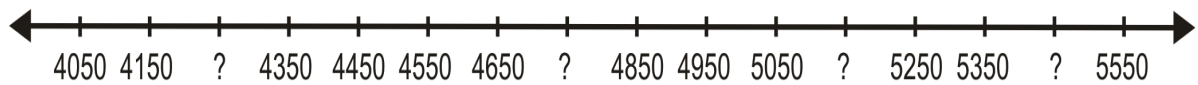
(a) 4200, 4700, 5100, 5400   (b) 4250, 4750, 5150, 5450
(c) 4305, 4805, 5205, 5505   (d) 4310, 4810, 5210, 5510

See the following picture given below and answer the questions from 22 to 24.

Daisy 1   Daisy 2   Daisy 3
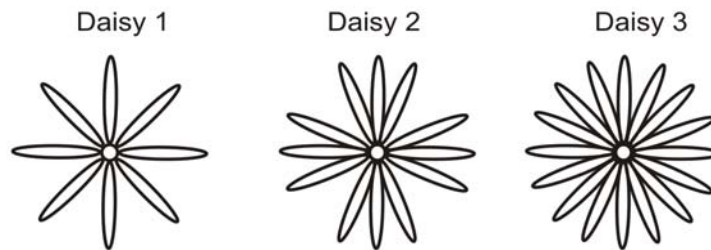
22. How many petals will Daisy 4 have?
(a) 20 petals   (b) 24 petals   (c) 22 petals   (d) 18 petals

23. Which of the following statements best describes the pattern rule of the daisies?
(a) Start with 8 petals and add 2 petals each time.
(b) Start with 8 petals and double the number of petals each time.
(c) Start with 8 petals and add 4 petals each time.
(d) Start with 8 petals and add 8 petals each time.

24. If you had a total of 48 petals what would the daisy number be?
(a) 9   (b) 10   (c) 11   (d) 12

25. What fraction is the shaded part?
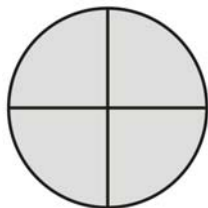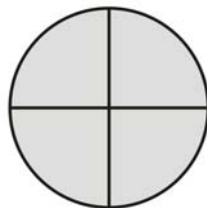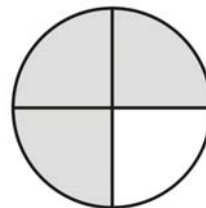
(a) 2   (b) $2\frac{1}{4}$ (c) $2\frac{3}{4}$ (d) $1\frac{3}{4}$

SECTION – 2: SCIENCE

26. Quana planted the same kind of seeds in pots A and B. She planted five seeds in pot A and five seeds in pot B. The amount and type of soil in both pots was the same. She added the same amount of water to both pots each week. Pot A was placed by a sunny window. Pot B was placed in a dark room. After four weeks, she observed the plants in both pots. The plants in pot A were green, with tall, thick stems. The plants in pot B were yellow, with tall,

thin stems. Which statement best explains why the plants in pot A were different from the plants in pot B?
(a) Pot A contained more soil than pot B.
(b) Pot A contained more seeds than pot B.
(c) Pot A received more sunlight than pot B.
(d) Pot A received more water than pot B.

27. Which units are used to measure how warm or cool the air?
(a) Grams   (b) Kilometers
(c) Degrees Celsius   (d) Cubic centimeters

28. What will happen when a coin is dropped in a glass of water?
(a) It Float   (b) It Sink
(c) It Float Mid-Way   (d) It will Break the Glass

29. Fuel is consumed to give energy to function properly. Petrol is a type of fuel used in vehicles to make them run. Which of these is a similar fuel?
(a) water utilized for bath   (b) food eaten by a person
(b) air pumped in cycle tyres   (d) steam given out by pressure cooker

30. Which of the following cycle is correct?
(a) Morning → sunrise → afternoon → sunset
(b) Seed → mature plant → fruit → seedling
(c) Baby → teenager → child → adult
(d) Summer → monsoon → winter → spring

31. Richa has brown eyes. If people in her family have brown eyes, from whom she has got her brown eyes?
(a) Niece   (b) Daughter   (c) Grandmother   (d) Sister

32. The main purpose of a plant's flowers is to
(a) Provide support   (b) To give beauty to the plant
(c) Produce seeds   (d) Produce food

33. Which category human being belongs to?
(a) Carnivores   (b) Herbivores   (c) Omnivores   (d) Meat eaters

34. Which of the following characteristics of living beings is illustrated in the given figure?

(a)   Movement

(b)   Breathing

(c)   Feeding

(d)   Growth

35. In order to survive, all animals need
(a) Roots, leaves, and stems   (b) Eyes, nose, and ears
(c) Light, soil, and nutrients   (d) Food, water, and air

36. Which of the following part of a plant helps it to prepare food?
    (a) Fruit   (b) Leaf   (c) Root   (d) Flower

37. Which of the following liquid contains more carbon dioxide?
    (a) Orange juice   (b) Cola   (c) Curd   (d) Water

38. When is World Environment Day celebrated?
    (a) 5th June   (b) 5th July   (c) 15th July   (d) 15th June

39. Karnam Malleshwari is a weight lifter from Andhra Pradesh. She can lift a weight of 130 kilograms. How many medals she won in an international events?
    (a) 25   (b) 26   (c) 29   (d) 30

40. Seeds grow into mature trees and produce more seeds. This pattern represents a
    (a) Food chain   (b) Life cycle   (c) Food supply   (d) Life span

41. Which of these are protein rich foods?
    (a) Bread   (b) Fruits and vegetables
    (c) Milk and fish   (d) Rice

42. Which of the insect given below is active at night?
    (a) Grasshopper   (b) Ant   (c) Cockroach   (d) Bees

43. Where does most of the energy we use originally come from?
    (a) The sun   (b) The air   (c) The soil   (d) The oceans

44. How would being able to change colors help an animal survive?
    (a) It won't help at all.
    (b) It will help him find food.
    (c) It would be more difficult for its enemy to find animal.
    (d) It would make it so the babies could recognize their mom by her color.

45. The photograph below shows a cactus plant covered with sharp spines. How do the sharp spines on the cactus help it to survive?

    (a)   They absorb sunlight

    (b)   They provide support for the plant

    (c)   They keep animals away from the plant

    (d)   They carry food to the flower

46. Which object has the greatest flexibility?
    (a) Wooden block   (b) Paper cup   (c) Metal nail   (d) Glass bottle

47. Which characteristic helps some animals defend themselves against predators?
    (a) Strong odor
    (b) Poor hearing
    (c) Weak eyesight
    (d) Shivering

48. Which plant stores water?
    (a) Celery
    (b) Broccoli
    (c) Oats
    (d) Cactus

49. When a worker bee does a wagging dance, what is he trying to tell the other bees?
    (a) That danger is near
    (b) He is just playing
    (c) Where the nectar is
    (d) Where the Queen is

50. Where we get pure water?
    (a) Rain
    (b) Lakes
    (c) Sea
    (d) Springs

SECTION – 3: GENERAL KNOWLEDGE

51. Gujarat is the first state to start chess programmes in school. Which state made chess classes compulsory in schools to improve cognitive skill of students?
    (a) Bihar
    (b) Andhra Pradesh
    (c) Kerala
    (d) Tamil Nadu

52. What percentage of world's water is available for human use?
    (a) Less than 1%
    (b) Less than 7%
    (c) Less than 22%
    (d) Less than 27%

53. RAM stands for
    (a) Rapid Access Memory
    (b) Random Access Memory
    (c) Rapid Action Memory
    (d) Random Action Memory

54. Which state is famous for tea garden?
    (a) Manipur
    (b) Meghalaya
    (c) Assam
    (d) Orissa

55. Who issues the Aadhaar card
    (a) Income Tax Department
    (b) Unique Identification Authority of India
    (c) Controller of Rationing & Director of Civil Supplies
    (d) Election Commission of India

56. Which energy source also produces a good quality fertilizer?
    (a) Biogas
    (b) Solar energy
    (c) Wind energy
    (d) Nuclear energy

57. What is the most common form of energy?
    (a) Light
    (b) Heat
    (c) Sound
    (d) Electricity

58. A singer known as 'Queen of Melody'
    (a) M.S. Subalakshmi
    (b) Lata Mangeshkar
    (c) Alka Yagnik
    (d) Kavitha Krishnamurthy

59. What is the scientific study of birds called?
    (a) Ornithology   (b) Zoology   (c) Botany   (d) Chemistry

60. During the speech on republic day, Vidya said that we argue a lot for our fundamental rights but we comfortably forget our fundamental duties. Which of the following is not a fundamental duty of a citizen of India?
    (a) Protection of life and personal liberty
    (b) Promote harmony and the spirit of common brotherhood
    (c) Abide the Constitution of India
    (d) Safeguard public property and abjure violence

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