

21

The Competition in

Science & Research Skills

***Science & Research
Test I & II
MODEL PAPERS***

Class : II



Eduranet

Intellectual Olympiad Foundation

(Promoted by Eduranet Educational Society (Regd. 309/09))

Hyderabad | India

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SYLLABUS

I) The World Around us

- 1) Me and My Family
- 2) My Home School and Neighbourhood
- 3) Travel, Communication & Computers
- 4) Life skills, Attitudes & Values
- 5) Our Country India
- 6) The World

II) Basic Sciences

- 1) The Living & Non-Living Things
- 2) The World of Plants
- 3) The Animal World
- 4) Body Systems, Sense Organs & Senses
- 5) Exploring Materials
- 6) Earth and Universe
- 7) Encountering the Scientific World in day - to - day life
- 8) Food, Water and Air.

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SCIENCE & RESEARCH TEST-I

CODE: 2121

PRELIMS

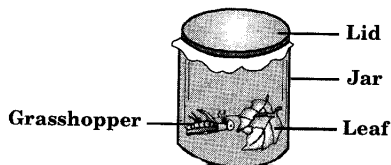
Max. Marks : 75

Duration : 75 Mins.

General Instructions :

1. Please find the Answer Sheets (OMR) with in the envelop given to you.
2. Mention your Test Code, Student ID, Name, Class, Section and School Name on the OMR Sheet as per Question Paper and Hall Ticket.
3. This question paper contains 75 Questions, duration is 75 minutes.
4. Do rough work in the empty sheet provided along with this question paper.
5. Answer questions in OMR sheet only.
6. Don't write or tick anything on the question paper.
7. Use only Black or Blue Ball Point Pen or Dark Pencil to answer the question in OMR sheet.
8. Indicate the correct answer by darkening one of the 4 or 5 responses provided.
9. Submit only OMR sheet to the invigilator

1. **A grasshopper with some leaves is placed in a glass jar and tightly closed with a lid.**



The grasshopper died because there is no ___ in the glass jar.

- a) food b) air c) light d) water

2. Plants make their food from air, water and ____.

- a) soil
- b) sunlight
- c) salts
- d) both A and B

3. Which of the following does NOT belong to the group formed by the others ?



4. Which one of these refers only to living things?

- a) Clouds, fire, rivers
- b) Fire, rivers, trees
- c) Birds, trees, worms
- d) Rivers, birds, trees


5. **Book, flowers, cars, trees, birds, fish, vegetables, chairs.**
From the above list, identify non-living things.

- a) Books, cars, vegetables
- b) Flowers, cars, fish
- c) Cars, trees, birds
- d) Books cars, chairs

6. Which of the objects given below are alive?

- a) Horse, car
- b) Horse, volcano
- c) Horse, cactus
- d) only the horse

7. Which of these give natural fibre(s)?

a) cotton plant 

b) Jute 

c) silk worm 

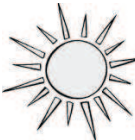
d) All of the above


8. Tea is made from the _____ of the tea plant.

- a) Leaves
- b) seeds
- c) fruits
- d) roots

9. Which of the following give energy to plants to make their food ?





a) 

b) 

c) 

d) None of the above

10. Which of these is a correct match?

	Part we eat	Plant part
a)		Root
b)		Seed
c)		Leaf
d)		Fruit

11. We get food from plants and animals. Which of these is obtained from animals?

- a) Pulses
- b) Groundnuts
- c) Sugar
- d) Cheese

12. Bees and butterflies collect _____ from flowers.

- a) oil
- b) nectar
- c) colour
- d) all of these

13. The dung of animals such as cows and buffaloes is dried and used as:

- a) wax
- b) leather
- c) fuel
- d) honey

14. Which of the following pairs is/ are correct?

a) Silk _ silk worm



b) Wool _ sheep



c) Leather – Crocodile



d) All of these

15. Which of these is NOT a milk product?

a) Butter

b) Ghee

c) Honey

d) Cheese

16. The excretory system in the body_____

a) excretes saliva

b) gets rid of waste products from our body cells.

c) breaks down food.

d) moves oxygen to all body parts.

17. The vascular or circulatory system in our body_____

a) delivers oxygen and nutrients to every part of the body

b) pick up waste products form every part of the body

c) both of the above

d) none of the above

18. The nervous system is responsible for _____

- a) picking up waste from every part of the body
- b) supporting our body
- c) controlling our thoughts, emotions, movements and co-ordinating our body functions.
- d) none of the given functions.

19. The muscular system in our body _____

- a) makes us move
- b) makes us look sad or happy.
- c) makes us smile, blink, breathe
- d) performs all the above functions

20. Our digestive system _____

- a) breaksdown the food we eat into a useful form.
- b) takes in oxygen and throws out carbon dioxide from the body
- c) makes us move.
- d) supports the body

21. The skeletal system _____

- a) gives shape and support to the body
- b) helps us breathe
- c) breaks down food into useful form.
- d) makes us look happy or sad.

22. The job of respiratory system is to _____

- a) break down food
- b) supply the blood with oxygen
- c) move the blood through out our body
- d) break down carbondioxide

23. Drink water that has been boiled because boiling kills:

- a) microbes
- b) fish
- c) soil
- d) none of these

24. Which of the following is a bad habit?



A girl doing exercise



Eating food cooked at home



Eating roadside food



A boy washing hands

25. Which of these sense organs give us the taste of food ?

a) Tongue



b) Eye



c) Ear



d) Mouth



26. Which of these materials is found naturally?

a) wood

b) paper

c) plastic

d) glass

27. Which of these materials is not found naturally but is made by changing a natural material?

a) cheese

b) honey

c) soil

d) wood

28. What is paper made from?

a) wood

b) plastic

c) rubber

d) metal

29. All of these things are made from wood. Which of the following has not been shaped or polished?

- a) a wooden chair
- b) a wooden pot
- c) a wooden box
- d) a log fallen from a tree

30. Which of the following materials comes from an animal?

- a) cotton
- b) rubber
- c) wood
- d) wool

31. Which of the following beverages is not obtained from plants ?

- a) tea
- b) coffee
- c) orange juice
- d) water

32. Which of the following materials is obtained from animal skin?

- a) cotton
- b) rubber
- c) leather
- d) fibre

33. Which of the following is not obtained from plants?

- a) jute
- b) cotton
- c) milk
- d) rubber

34. Sun is a

- a) Planet
- b) Star
- c) Galaxy
- d) Satellite

35. Without the sun, there would be

- A) no Moon
- B) no life
- C) no heat
- D) no light
- a) A,B
- b) B,C &D
- c) B & D
- d) C & D

36. Sun is also called the

- a) Moon
- b) Yellow dwarf
- c) Solar system
- d) Saturn

37. Earth orbits around the

- a) Moon
- b) Milky way
- c) Sun
- d) Solar system

38. The rainbow is made of _____ colours.

- a) Five
- b) Six
- c) Seven
- d) Eight

39. The Moon orbits around the

- a) Earth
- b) Sun
- c) Mars
- d) All of these

40. How long does the earth take to revolve around the sun?

- a) one month
- b) one week
- c) one day
- d) one year

41. Sun sets in which direction

- a) East
- b) West
- c) North
- d) South

42. What is the name of our galaxy

- a) The milky way
- b) Spiral galaxy
- c) Andromeda galaxy
- d) Cartwheel galaxy

43. Moon gets its light from

- a) It has its own light
- b) Earth
- c) Sun
- d) Other stars

44. What is a star ?

- a) Big Moon
- b) A ball of gas that gives off heat and light
- c) Any object in solar system
- d) Cloud of dust particles

Directions: (45 - 54) : This is the picture of Rohan's house. He and his mother are surrounded by different forms of energy. Energy makes their world lively. What will happen if they were living in a world without energy. Let's find out!



- 45. Rohan won't be able to see his mother without _____ energy.**
- a) light
b) chemical
c) heat
d) sound
- 46. Rohan can't play without the _____ energy of food.**
- a) light
b) chemical
c) heat
d) sound
- 47. Rohan and his mother can't talk without _____ energy.**
- a) light
b) chemical
c) heat
d) sound
- 48. The fan in Rohan's house won't move if there were no _____ energy.**
- a) light
b) chemical
c) electrical
d) sound
- 49. The food on the gas stove won't get cooked if there were no _____**
- a) heat
b) sound
c) chemical
d) light
- 50. The television won't be of any use if _____ energy were not there.**
- a) electrical
b) light
c) sound
d) all of these

- 51. The milk spoils over the day if not kept in refrigerator that needs_____ energy.**
- a) sound
b) chemical
c) light
d) electrical.
- 52. The mother can't call Rohan sitting in another room without the _____ energy.**
- a) sound
b) light
c) electrical
d) chemical
- 53. The mother won't be able to cut the vegetables without _____ energy.**
- a) mechanical
b) chemical
c) sound
d) none of these
- 54. Rohan can't play Cricket without _____ energy.**
- a) mechanical
b) sound
c) chemical
d) none of these
- 55. Living organisms need the following to live**
- a) air
b) water
c) food
d) all the above
- 56. The earth on which we live is a**
- a) living thing
b) Non - living thing
c) both a and b
d) none

57. We eat the stem of this plant

- a) onion
- b) carrot
- c) Mango
- d) spinach

58. ___ changes into fruit

- a) leaves
- b) flowers
- c) seed
- d) both b and c

59. It takes food from soil and holds the plant

- a) stem
- b) branch
- c) root
- d) leaf

60. One of the following prepares food for the plant

- a) leaf
- b) flower
- c) fruit
- d) root

61. Cactus is a desert plant where as lotus is a ___plant

- a) land
- b) air
- c) both a and b
- d) water

62. Food is stored in the stem of the following plant

- a) carrot
- b) turnip
- c) potato
- d) radish

63. The following bird lays the largest eggs

- a) Hen
- b) Ostrich
- c) Duck
- d) Penguin

64. Silk worm feeds on

- a) leaves
- b) insects
- c) rice
- d) fruits

65. ____ has fins and scales

- a) Frog
- b) Fish
- c) Snake
- d) Lizard

66. This is called ship of the desert

- a) Horse
- b) Cow
- c) Camel
- d) Zebra

67. This animal has shell over its body

- a) Frog
- b) Crocodile
- c) Earth worm
- d) Snail

68. Air is present

- a) every where
- b) only around us
- c) only in water
- d) both b and c

69. Spinach has

- a) proteins
- b) Carbohydrates
- c) Fibre
- d) Fats

70. This is called complete food

- a) Bread
- b) Milk
- c) Butter
- d) Cheese

71. We breathe in ____ and we breathe out ____

- a) oxygen, hydrogen
- b) carbondioxide, oxygen
- c) oxygen, nitrogen
- d) oxygen, carbondioxide

72. The energy from _____ heats up the earth's surface

- a) Sun
- b) Moon
- c) Stars
- d) All the above

73. This group of foods helps in digestion

- a) Proteins
- b) Fats
- c) Fibres
- d) Both b and c

74. Butter, ghee, oil are

- a) Light food
- b) Fatty food
- c) Protein food
- d) None

75. Air occupies

- a) Space
- b) Water
- c) Mountains
- d) None

KEY TO MODEL PAPER - I

- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| 1. b | 2. b | 3. c | 4. c | 5. d | 6. c |
| 7. d | 8. a | 9. b | 10. a | 11. b | 12. b |
| 13. c | 14. d | 15. c | 16. b | 17. c | 18. c |
| 19. a | 20. a | 21. a | 22. b | 23. a | 24. c |
| 25. a | 26. a | 27. a | 28. a | 29. d | 30. d |
| 31. d | 32. c | 33. c | 34. a | 35. a | 36. a |
| 37. c | 38. c | 39. a | 40. d | 41. b | 42. a |
| 43. c | 44. b | 45. a | 46. b | 47. d | 48. c |
| 49. a | 50. d | 51. d | 52. a | 53. a | 54. a |
| 55. d | 56. b | 57. a | 58. b | 59. c | 60. a |
| 61. d | 62. c | 63. b | 64. a | 65. c | 66. c |
| 67. d | 68. a | 69. c | 70. b | 71. d | 72. a |
| 73. c | 74. c | 75. a | | | |

SCIENCE & RESEARCH TEST-II

CODE: 2122

FINALS

Max. Marks : 40

Duration : 60 Mins.

General Instructions :

1. Answer all the questions in the question paper it self.
2. Mention your Test Code, Student ID, Name, Class, Section, Contact no. and School Name.
3. This question paper contains V sections, duration is 60 minutes.
4. Please read the instructions carefully before attempting the question.
5. Answer questions in Question paper only.
6. Submit the Question paper to the invigilator.

Name of the Student: _____ **Student Id** _____

Test Code: _____
School _____

Class _____ **Sec** _____ **Contact no:** _____

SECTION - I

5m

DIRECTIONS : Our country India experiences various seasons every year. Match the months of the year with their seasons by drawing lines

January		WINTER		July
February		SPRING		August
March		AUTUMN		September
April		RAINY		October
May		SUMMER		November
June				December

SECTION - II

10 × 1/2 = 5m

(Application based Questions)

Directions : (1–10) Put (✓) on the statements that show the responses of living things.

1. We have goosebumps when we feel cold.
2. Plants move their roots towards water.
3. A football rolls when kicked.
4. We sweat after exercise.

5. A stone breaks after it falls from a height.

6. Plant stems grow towards sunlight

7. We feel thirsty after moving up the stairs.

8. The car starts up when the engine is turned on.

9. Our mouth waters when we smell our favourite dish.

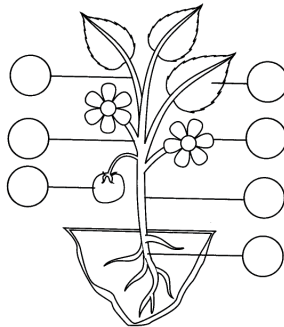
10. A pet dog barks on strangers.

SECTION - III

7 × 1 = 7m

Comprehension based Questions

Directions : (11- 17) Match the parts of the plant with its function by writing its number from the given clues.



Flower, Stem, Roots, Leaves, Fruit, Leaf stalk, Flower stalk

11. They protect the seed in them.

12. To attach the flower with the plant.

13. They become fruit.
14. They take water and food from the roots to the other parts.
15. It prepares food for plant.
16. It takes food from soil and holds the plant.
17. To attach the leaf with plant.

SECTION - IV

5 × 1 = 5m

Knowledge based questions

A) Directions : (18 -22) – Identify the animal with the help of given clues. Write its name in the space provided.

18. I have beautiful feathers.

My claws are not as beautiful.

I am the national bird of India.

19. I am a bird but cannot fly.

I can run very fast.

I lay the largest eggs.

20. I am the largest snake in the World.

I am non poisonous

But I can crush my prey to death.

21. I am the only mammal that can fly long distances.

I eat insects.

I can't 'see' in complete darkness.

22. I lay eggs that hatch in 14 days into caterpillar.

I feed on the leaves of the mulberry tree.

I am used for producing fibres.

B) (23 - 27) Read the information given in the table.

5 x1 = 5m

	Food groups	Give us	Good for	We get from
1.	Grains group	Energy	Whole body	Wheat, rice, jowar, flour, corn
2.	Milk group	Calcium	Bones and teeth	Milk, Cheese, yogurt, ice cream, pudding
3.	Meat and Beans group	Protein	building strong muscles	Eggs, beans, lentils, fish, nuts.
4.	Fruits and vegetables group	Vitamins	Skin, eyes, hair	Carrots, spinach, beans, broccoli, melon, apples, pear, berries, grapes
5.	Oils group	Energy	Whole body in limited amount	Butter, Oil, Ghee
6.	Fibres group	Fibres	Digestion of food	Green vegetables, whole grains, most of the fruits and vegetables.

Now the fill the blanks from the information given in the above table.

23. Fish and nuts belong to _____ group.

24. Milk, cheese and yogurt build strong _____ and _____.

25. For good skin, hair and eyes we must eat plenty of raw _____ and _____.

26. In a healthy diet food from _____group should be the least.

27. The food from milk group gives us_____.

C) **Directions : (28 - 45)** – Unscramble the names in the boxes given below and display your knowledge of the names and positions of planets.

18 × 1/2 = 9m

28. MRAS

--	--	--	--

29. VSNEU

--	--	--	--	--

30. ASRUNT

--	--	--	--	--	--

31. EMRCYUR

--	--	--	--	--	--	--

32. EJURTP

--	--	--	--	--	--	--

33. NPNUEET

--	--	--	--	--	--	--

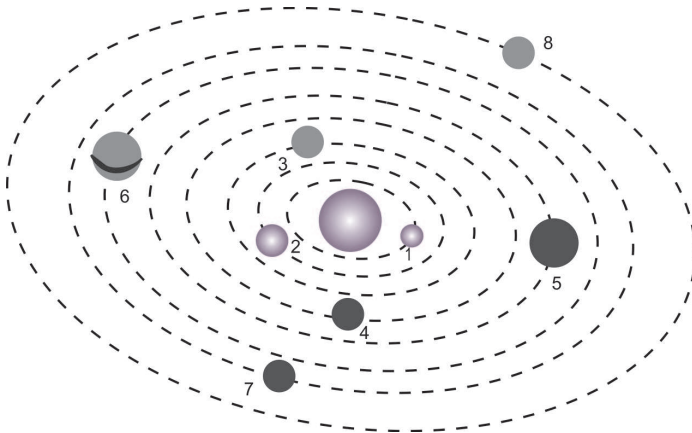
34. HERAT

--	--	--	--	--

35. ASUURN

--	--	--	--	--	--

Now, locate the positions of the planets and write their names in correct order.



36. _____ 40. _____

37. _____ 41. _____

38. _____ 42. _____

39. _____ 43. _____

Now, answer the following questions.

44) Which planet is closest to the Sun ? _____

45) Which planet farthest from the Sun ? _____

SECTION - V

8 × 1/2 = 4m

Analysis based questions

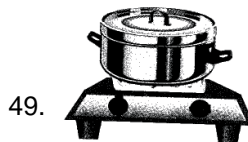
Directions:(46 - 53) We need energy to do different work. We get this energy from the food we eat. In the same manner, to do their work, machines need energy too. They get it in different forms from different sources. Choose the correct option from the ones provided in the box that runs the objects shown.

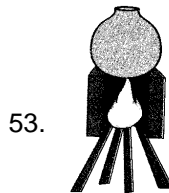
- | | | | |
|---------|-------------|-------------|----------------|
| Petrol | LPG | Car battery | Cow Dung cakes |
| Battery | Electricity | Cell | Coal |











SOLUTIONS TO MODEL PAPER - II**SECTION – I****Match the following**

- ◆ January , February , November, December WINTER
- ◆ April, May : SPRING
- ◆ September, October : AUTUMN
- ◆ July : RAINY
- ◆ April, May, June : SUMMER

SECTION – II**Application based questions**

1. ✓ 2. ✓ 3. X 4. ✓ 5. X
6. ✓ 7. ✓ 8. X 9. ✓ 10. ✓

SECTION – III**Comprehension based questions**

11. Fruits 12. Flower stalk
13. Flower 14. Stem
15. Leaf 16. Roof
17. Leaf stalk

SECTION – IV**Knowledge based questions**

- | | | |
|------------------|----------------------|--------------------|
| 18. Peacock | 19. Ostrich | 20. Anakonda |
| 21. bat | 22. Silk Worm | 23. Meat and beans |
| 24. bones, teeth | 25. Carrot , spinach | |
| 26. Oil | 27. Calcium | 28. MARS |
| 29. VENUS | 30. SATURN | 31. MERCURY |
| 32. JUPITER | 33. NEPTUNE | 34. EARTH |
| 35. SATURN | 36. Mercury | 37. Venus |
| 38. Earth | 39. Mars | 40. Jupiter |
| 41. Saturn | 42. Uranus | 43. Neptune |
| 44. Mercury | 45. Neptune | |

SECTION – V**Analysis based questions**

- | | | |
|-----------------|--------------------|----------|
| 46. Petrol | 47. Battery | 48. Cell |
| 49. LPG | 50. Electricity | 51. Coal |
| 52. Car battery | 53. Cow dung cakes | |