

**Entrance Syllabus  
Of  
Jamia Millia Islamia**

*Class - 6<sup>th</sup>*



**Jamia Middle School  
Jamia Senior Secondary School  
Syed Abid Husain Sr. Secondary School (Self - financed)  
Jamia Girls Senior Secondary School**

**Jamia Millia Islamia (A Central University)  
New Delhi-110025**

## **Section-1 Environmental Studies (EVS)**

*Questions under this section will be based on the NCERT textbook prescribed for Class V. Questions are meant to assess the candidate's knowledge about environmental awareness.*

*The section will have 50 MCQs based on the following topics/sub-topics.*

### **1. Super Senses:**

- How animals find their food?
- Activities for sound, smell, touch and sight.
- Blindfolding activities.
- Why is the tiger in danger?
- What we take from animals?

### **2. A Snake Charmers Story:**

- People who depend on animals.
- To be sensitive about cruelty to animals.
- People teasing/ troubling animals in the zoo and other places.

### **3. From Tasting to Digesting:**

- How do we taste food?
- Our mouth tastes and even digests food. What happens to the food we eat?
- What is glucose?
- Why do we give glucose to patients?

### **4. Mangoes Round the Year:**

- Spoilage and wastage of food. Which food spoil sooner than others?
- How does food spoil ?
- How do we know that food is spoilt?
- Why do we need to preserve food?
- What can we do to prevent food from getting spoilt?
- What do we do to keep it fresh during travel?

### **5. Seeds & Seeds:**

- Growing plants.
- Study germination of some seeds.
- How does a plant grow from a seed?
- Experiment to determine conditions suitable for germination (air and water)
- Preparing and maintaining a small garden in the school.
- Where does the seed come from? Have you seen seeds that fly/stick to your clothes/drift in the water?

### **6. Every Drops Counts:**

- Water from where in earlier times?
- Listing and classification of water bodies. Water for growing crops.

### **7. Experiments with Water:**

- Classification of things around to see which float, which sink and which mix with water. Hands –on activity to observe solubility in water, floatation.
- List out things that float/sink in water by showing



experiments. Objects float in salt water.

Coins and water experiment .

**8. A Treat For Mosquitoes:**

Mosquitoes and malaria.

Is there any stagnant water in your locality?

Do you find more mosquitoes in stagnant water? Is there any way to reduce the mosquitoes in water? Have you heard of malaria? In which season do you find more people getting ill with malaria?

**9. Up You Go:**

Mountains.

Expeditions and the spirit of adventure.

Some idea of training for high altitude.

National Flag.

-Identifying some other flags.

**10. Walls Tell Stories:**

Oldest buildings.

Heritage building as a source of knowledge.

To be able to understand how they were built, places from where the materials came. Skills of craftsman ,some historical personalities.

**11. Sunita in Space:**

Basic exposure to the aerial view of the earth and what India looks like from there. How to show the gravitational pull.

The sky in the day and night.

What all do you see in the sky –at day time? And at night? How many of the things you see in the sky are man-made?

**12. What If It Finishes: Fuels used in vehicles:**

-List out different vehicles and the fuel used. Find out the present rates of a litre of different fuels like petrol, diesel ,CNG etc.

-Do all vehicles need petrol to run on?

-What other fuels do you know that are used for vehicles e.g. trains ,tractor etc. -

Do all vehicles run an equal distance on a litre of fuel?

Other purposes for which petroleum is

used. -The formation of petroleum.

-By-products of petroleum.

-Air and noise pollution and diseases caused.

**13. A Shelter So High:**

shelter

Why different houses?

-Why do you have different kinds of houses in different places? (regional difference, difference due to climate and materials available ,economic status , etc).

-Different houses in the same place?

**14. When The Earth Shook:**

Disaster and trauma of losing one's home. Collect pictures and newspaper clippings and make an album on different natural calamities. Community help.

Find out names of organizations that extend help during natural calamity e.g.



address and the phone numbers of fire station, nearby hospital, ambulance, police station.

Times of emergency.

Have you heard of houses being damaged by floods/earthquake /fires /storms?

What would it have felt like? Who are the people who come to help? Where can we look for help? Who runs such organization? What can you do to help others before the doctor comes?

Do's and don'ts during earthquake.

### **15. Blow Hot, Blow Cold:**

Our breathing observation.

- Breathing in and out and observing the difference.

- Blowing air to warm and cool.

-Counting heartbeat and breathing rate.

-Inviting a doctor.

How many times do you breathe in a minute –on sitting still ,just after a run How

do you blow to make something cold ?Do you also blow to keep a fire going? -

Classifying the musical instruments into ones that make sound by blowing air, Percussion instruments.

### **16. Who Will Do This Work:**

Clean work-dirty work?

-Talk with people and collect information on jobs people don't like to do.

-List ten different types of work that people do for you . - Categorize which work is seen as dirty and what work is seen as clean. -Jobs we like to do and don't like to do.

-What would happen if there were no one to clean our streets/our home /clear the garbage?

-Imagine and draw things used to make your work easy.

-Find out about Gandhi, other Social reformers.

### **17. Across The Wall:**

Types of games and sports.

Make a list of indoor and outdoor

games. Common wealth games.

Gender stereotyping.

The games that are played on the gender

bias. Should games for boys and girls be

different? Woman achievers in different

fields.

Equal opportunities to girls at home and

outside. List of Games and sports played as a

team Importance of team spirit in games

Some popular national and international teams of Local games /martial

arts Changing nature of leisure.

What do you do in the evening for

leisure? What if there is no T V?

### **18. No Place For Us:**

Shifts in habitation-migration/transfers/demolition

Displacement associated difficulties.



-The difficulties faced by the people and their children who are displaced.  
Are all people benefited from the dams built in the name of development?

### 19. A Seed Tells Farmer's Story:

-Changes in agricultural practices.  
-How do farmers get the seeds they plant every year?  
Whether the changes in agricultural practices have been beneficial?  
Growing food.  
How do we grow food ?What are the tools used for preparing the field ,cutting and harvesting ,cutting and cooking different vegetables ? -Preparing manure from waste.  
-Compost pit.  
-Vermi composting.  
Tools used by farmers.

### 20. Whose Forests?

-Places where there were trees /forests earlier but now there are none. -Why were the trees cut and what is there today?  
Forest and forest people.  
Need and problems associated with deforestation.  
-Interdependence of plants , animals and human beings. -Effects of de forestation.  
- Right to forest Act.  
-Jharkhand Jungle Bachao Andolan.  
- Chipko Movement  
- Vanmahotsav  
-Jhoom farming  
list of common resources.

### 21. Like Father Like Daughter

The habits and traits of different families.  
Information about pulse polio and measures taken by the Government to eradicate it. -Immunization schedule of a child.  
How our identity is shaped by traits we inherit from our family and opportunities we get from our environment.  
Information about the diseases inherited to the next generation.

### 22. On The Move Again:

Child  
labour,  
Difficulties faced by labourers.  
Different kinds of farmers .Do all farmers own their land? Hardships faced by seasonal migration.  
Borrowing money, loans, debts etc.  
Various methods of irrigation in the fields (Water wheel, sprinkler etc) Different kinds of farming methods.



## **Section 2: Mathematical and Numeracy skill Test**

*The main purpose of this test is to measure candidate's basic competencies in Mathematics.*

*All the Twenty-five questions of this test will be MCQ type and will be based on the following topics/sub-topics:*

### **1. The Fish Tale**

- Representing numbers on a Place value chart ( Indian & International)
- Numeral and number names.
- Short form/ expanded form of numbers.
- Formation of smallest and greatest number using 3,4 & 5 digits.
- Rounding of numbers to nearest tens, hundreds and thousands.
- Word problems on addition and subtraction, measurement- length, weight, capacity, speed, distance and time.
- Conversion of units.

### **2. Shapes and Angles**

Drawing of a ray, line and line segment.

Drawing of different open and closed shapes.

Make shapes using match sticks, understand that polygon with same sides have different shapes because of different angles.

Drawing and comparing different angles using line segment and rays.

Angles made by hands of a clock.

Angles in names.

Observe bridges and tower [diagonal beams which divide the shapes into triangle.

### **3. How many Squares?**

Measuring the perimeter of irregular shapes using thread. Finding area of a triangle using square grid.

Creating new shapes out of a square (tile) to make floor patterns.

Draw rectangles of 12 squares in different ways on a dot grid. Find the perimeter. Make shapes with straight lines to cover the given area on a graph paper.

### **4. Parts and wholes**

Generation of fractions equivalent to a given fraction. Divide a rectangle into 6 parts in different ways.

Divide the given shapes in equal parts in different ways.

Understands different type of fractions- Like/Unlike fractions, Unit fractions, Proper and Improper fractions, mixed fractions.

Conversion of improper fractions into mixed numerals and vice versa.

### **5. Does it look the same?**

Make a pattern from a drop of colour.

Drawing the other mirror half of the given picture.

Distinguish symmetrical and asymmetrical figures from the given figures/objects

Pictures of clock/mouth of different animals /exercise postures or other diagrams to show different symmetrical and asymmetrical shapes.

Observing and drawing different shapes on rotating  $\frac{1}{3}$ ,  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{6}$  etc.

### **6. Be my multiple, I'll be your factor**



Meow and dice game to give the concept of multiple.

Write multiples of given numbers and also find out common multiples. Finding LCM of given numbers.

Arrange the groups of different things with a fixed number in different ways (concept of factor) (Things used Bangles, seeds, pencils etc).

Arranging bangles into equal groups possible for a given no. of bangles. For ex. 6, 1X6, 2X3, 3X2, 6X1.

List the factors of given two no. and write the common factors in the common region. Finding HCF of given numbers.

On a 1 to 100 number grid colour multiples of 2 with red, 3 with blue and 4 with yellow. Pick the numbers which have all the three colours(Prime and composite numbers).

Making factor tree of given number.

Solving problems related to factors and multiples.

### **7. Can you see the pattern?**

Observe the patterns on gift wrappers/cloth/and try to deduce the rule.

Make a vegetable block and using colours print on paper/cloth taking  $\frac{1}{4}$ ,  $\frac{1}{2}$ turns.

(clockwise/anticlockwise)

Observe the rule in the given patterns and complete the pattern using the rules.

[Magic square, Magic Hexagon, number and number (change in order of number in the addends) Palindromes, Magic calendar etc.]

### **8. Mapping Your Way**

Take a map of your city and tell the location of one locality to others and its associated

objects like park, hospital, temple etc.

Enlarging or reducing of pictures or maps on graph paper, the class room floor, the mud ground etc.

Drawing map of your class room and primary wing and expressing the different objects e.g. black board, window, door, display board etc.

### **9. Boxes and Sketches**

Counting of faces, edges and corners of a cube/cuboid. Finding the area of each face of the cube/cuboid.

Making a list of things which look like a cube/ cuboid in their surroundings.

Practicing to visualize the net of box, to think of how it looks when flattened, and also to check which nets do not make a box.

Making the nets of a cube and an open box and check which nets do not make cube/open box.

Making of cubes/cuboids/cylinder etc using dice, empty match boxes and thick papers.

Making deep drawing of a house and a cube.

Drawing front view, side view and top view of given models, objects etc.

### **10. Tenths and Hundredths**

Measure the length of different things in mm and cm like notebook, pencil, eraser, pen, desk etc.

Convert cm into mm and vice versa.



Represent the given decimal on a square grid/graph paper.

Find the value of currency of other countries in Indian currency. Representation of Indian rupees in fraction and decimal.

Find the maximum and minimum temperatures of different cities and find their differences too.

### **11. Area and its Boundary**

Measure the length and breadth of the given things and finding their area and Perimeter.

Paste different cutouts and find their area and perimeter.

Finding the perimeter and area of class-room, display board, black board etc. Finding the perimeter and area of a given square and rectangle.

Problem solving related to perimeter and area of square and rectangle.

Draw two squares (one is double of the other) .Find their perimeter and area and compare too.

### **12. Smart Charts**

Use of tally marks for different numbers.

Use the tally marks to show the mode of transport used by students to commute to school.

Collect the strength of students in classes I to V of primary section and find the total strength. Which class has the maximum/minimum strength?

Observe the 1/2 an hour TV programme and making tally marks for the different advertisements.

Representation of data using chapatti chart or pie chart.

Making a table to record temperature of different cities and represent the data as Bar Graph.

### **13. Ways to Multiply and Divide**

Multiply any two numbers in different ways by breaking method and column method.

Determine the division and multiplication factors of a given number

Problem sums related to daily life.

Fun with multiplication.

### **14. How Big? How Heavy?**

Comparing the volume of different things by putting them into jar filled with water. Making a measuring bottle.

Finding volume by arranging the cubes and counting them.

Finding volume of a match box by measuring its length, width and height. Making a paper cube.

Match box play – arrange a particular no. of boxes to make platform of different heights.

Finding volume of a cube and cuboid.

Grocery items used at home in one month quantity (weights ) and the total weight.



## **Section 3: English Language Test**

*The main purpose of this test is to assess the basic grammatical knowledge and reading comprehension of the candidates. The test consists of the following grammatical topics. The nature of the Questions will be of MCQ type.*

### **1. Adjectives**

To underline the adjectives in a given passage.

### **2. Nouns**

Picking/identifying nouns from the given text/unseen passage.

### **3. Simple Past Tense**

To underline the past tense in a given text/passage.

### **4. Question Words using "how" what, when, where and why**

### **5. Opposite words beginning with un-, in-, dis, -im**

### **6. Use of Punctuation**

### **7. Use of Pronoun**

### **8. Reading Comprehension**

### **9. Exclamatory Words**

-X-X-X-

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