



केन्द्रीयविद्यालयसंगठन/KENDRIYA VIDYALAYA SANGATHAN

(Min. of HRD, Deptt. of Education, Govt. of India)

18-संस्थागतक्षेत्र/18-Institutional Area

शहीदजीतसिंहमार्ग /ShaheedJeet Singh Marg

नईदिल्ली-110016 /NEW DELHI - 110016

Tel: 26858566-211, Fax No.26514179

WWW.KVSANGATHAN.NIC.IN

F.No-11029/05/2016/KVS (HQ)/Acad/JMO /11321 - 11346

Date: 21.06.16

23

To

The Deputy Commissioner
Kendriya Vidyalaya Sangathan.
Regional Office
All Regions

Subject: 19th Junior Mathematical Olympiad - reg.

Madam/Sir,

Mathematical discoveries have come both from the attempt to describe the natural world and from the desire to arrive at a form of inescapable truth from careful reasoning. The Mathematical Olympiad programme in India, which leads to participation of Indian students in the International mathematical Olympiad (IMO) is organized by the Homi bhaba Centre for Science Education (HBCSE) on behalf of the National Board for Higher Mathematics of the Department of Atomic Energy (DAE), Government of India with a purpose to spot Mathematical talent among pre university students of the country.

The Mathematical Olympiad programme consists of five stages:

- Stage 1: Junior Mathematical Olympiad (JMO and Pre - JMO)
- Stage 2: Indian National Mathematical Olympiad (INMO)
- Stage 3: International Mathematical Olympiad Training Camp (IMOTC)
- Stage 4: Pre-Departure training camp for IMO
- Stage 5: International Mathematical Olympiad (IMO)

JMO is first essential step for students aiming to go through the Mathematical Olympiad Programme leading to International participation (IMO). KVS conducts Junior Mathematical Olympiad for students of Kendriya Vidyalayas every year with two training camps. In the session 2015-2016 approximately 9928 students appeared in Junior Mathematical Olympiad conducted by KVS. The programme for the session 2016-17 is as follows:

1. Pre-JMO is screening test conducted at school level for aspiring students of classes IX & X.
2. Eligibility for Pre - JMO : Students studying in class IX and X with minimum Grade in Mathematics in previous class is A2.
3. JMO will be conducted for students of classes IX to XI

4. Eligibility for JMO: i) Students of Classes IX –X: those who qualify Pre JMO with minimum 35% marks.

ii) Class XI students with A1 grade in Mathematics in class X.

5. Syllabus: The present course structure of JMO is at par with other State Boards covering all topics as in JMO conducted by HBCSE. The syllabus of JMO is available at the HBCSE website. Same is presented for your reference.

The syllabus for Mathematical Olympiad (Regional, National and International) is pre-degree college Mathematics. The areas covered are arithmetic of integers, geometry, quadratic equations and expressions, trigonometry, co-ordinate geometry, system of linear equations, permutations and combination, factorization of polynomial, inequalities, elementary combinatorics, probability theory and number theory, finite series and complex numbers and elementary graph theory. The syllabus does not include calculus and statistics. The major areas from which problems are given are algebra, combinatorics, and geometry and number theory. The syllabus is in a sense spread over Class XI to Class XII levels, but the problems under each topic involve high level of difficulty and sophistication. The difficulty level increases from JMO to INMO to IMO.

6. Procedure:

- i) Students securing at least 35% marks at Pre JMO (school based) should be included in the list of eligible students to participate in JMO conducted at all India Level along with class XI students.

7. Tentative Date & Time of Examination.

i) Pre-JMO – 1st Saturday, August, 2016. i.e 06.08.2016, Duration – 3Hrs. 9 A.M -12 Noon

ii) JMO - 1st Sunday of September, 2016 i.e 04-09-2016. Duration-3 Hrs: 10:00 AM to 1:00 PM.

8. Evaluation: i) Pre-JMO: Evaluation should be done at school level and process of evaluation should be completed by 12th August 2016.

ii) JMO: Evaluation of JMO will be done centrally at New Delhi.

9. Result of JMO: JMO Result will be declared tentatively by last week of September, 2016. Same will be uploaded at KVS website for Information to all.

10. INMO Preparatory Camp: Two INMO preparatory camp (will be organized) one during Autumn Break (October) and the other during Winter Break (December).

11. KVS RMO (Regional Mathematical Olympiad): KVS RMO will be conducted on last day of 2nd phase of INMO Preparatory Camp among the participants and a merit list will be prepared on the basis of performance of students in both the camps combined together.

12. KVS Participation in INMO (Indian National Mathematical Olympiad): 30 to 35 students will be selected on the basis of performance at KVS RMO to participate in INMO-2017.

13. Certificate and Prizes:

Merit Certificates & Cash Awards – JMO :2016

(a) JMO National Level.

- (i) First Prize - Rs.10,000/-
- (ii) Second Prize - Rs.8000/-
- (iii) Third Prize - Rs.5000/-

(b) JMO Regional Level

- (i) First Prize - Rs.5,000/-
- (ii) Second Prize - Rs.4,000/-
- (iii) Third Prize - Rs.3,000/-

Only those Students who would secure 50% marks in JMO will be awarded with merit certificate.

14. Merit certificate & Cash Award: INMO – 2016 : The students who will qualify in INMO-2017 will be awarded with a merit certificate and cash award of Rs. 20,000/-

15 Procedure For Registration

15.1 Pre-JMO (School level screening Test): All eligible students of classes IX and X will register at school level only.

15.2 JMO (National Level): The eligible student of JMO as per fixed criterion & willing student of classes IX to XI, have to register herself / himself on prescribed form (Annexure-I). The school will retain one copy of the filled **Registration Form** for record. However, a consolidated list of students, registered Vidyalaya-wise for the Olympiad should be sent to the **National Coordinator** in the format given in Annexure-VII

16. Last date of submission of list of students for JMO: (i)The list of eligible students should be sent to the Regional Office latest by 22-08-2016 (soft copy in excel format).

(ii)The list of registered students compiled at the Regional Office should be sent to Principal KV Pushp Vihar New Delhi, latest by 25th August 2016.

17. Allocation Of Roll Number: The Principal of KV concerned should allocate the Roll No. on registration form of each candidate. The same roll no. should be mentioned on the admit card. The roll numbers will be allocated strictly by following the guidelines as follows:

- Each student will be allotted nine digit roll number. The first two digits on the left will show the region code, next four digits will show the Vidyalaya code and last three digits will show the serial number of the candidate.

Coding Procedure for allocating Roll Numbers:

Region Code Vidyalaya Code Sr. No.

Example: The roll

--	--

--	--	--	--

 Number of

--	--	--

 Master

Mukesh of KV NTPC Badarpur (KV Code (1406) of Delhi (Code No.09) and having serial number 005 in the list of students registered for Olympiad in that school will be written as:

0	9	1	4	0	6	0	0	5
---	---	---	---	---	---	---	---	---

Note: (i) While allotting roll number to students each KV should follow strictly the standardized codes for Regional Offices and Kendriya Vidyalayas covered in each region as **per codes mentioned in transfer guidelines**. This is necessary as the same codes are to be maintained by KVS (HQ) during Computerization of the registration/result etc.

(ii) Double shift schools will allocate roll nos in the same sequence in increasing order starting from sr.no 001 from 1st shift.

18. Admit Card

The admit card to the students will be issued by the Principal after allotting the Roll Number and the Examination Center. However, the roll number on the admit card should remain the same as allotted in registration form of the candidate. The format of the Admit card is enclosed at Annexure-III.

19. Examination Center

The Deputy Commissioner of the Region concerned will fix the Examination Centers and intimate the same to the Principals. Centre for examination should be clearly mentioned in the Admit card issued to students.

Important: The Deputy Commissioner of the Region may fix more centers of examination keeping in view of travel distance of the students appearing in the Olympiad.

20. Question Papers

(i) **Pre Junior Mathematical Olympiad - 2016** – KVS (HQ) will send soft copy of common question paper to all the Deputy Commissioners with marking scheme for onward transmission to concerned KVs under their Region latest by 20th July 2016.

(ii) **JMO -2016:**

The soft copy of question papers for JMO 2016 will be sent directly from KVS (HQ) to Deputy Commissioners of all Regions. The Centre Superintendent will receive the soft copy from the

Deputy Commissioner concerned. The Centre Superintendent will take print out as per requirement.

21. Answer Books: Answer books with 16 pages (A-4 size) with the title page as shown in the ANNEXURE-IV are to be provided by the examination centre.

22. Spot Evaluation /Merit List: The answer book of JMO -2016, should be sent to KV, Pushp Vihar New Delhi. The merit list of students will be prepared as per minimum cut off marks decided by KVS.

23. Declaration of Result: The result of JMO -2016 is likely to be declared in the month of November 2016.

24. INMO Preparatory Camp-2016: Based on the merit students will be invited to attend training programme of 10 days duration during autumn break and winter break of the year-2016. Details will be intimated in due course of time.

25. Tentative Venue for Training Camps for INMO -2017:

- | | | |
|------|--------------------------|----------------|
| (i) | KV Pushp Vihar New Delhi | - Autumn Break |
| (ii) | KV- No. 1 Colaba, Mumbai | - Winter Break |

26. KVS Pre-RMO (Pre-Regional Mathematical Olympiad) - 2016: On the last day of the INMO preparatory camp, a test of 3 hours for 100 marks will be conducted and evaluated at both the centres (Delhi/ Mumbai). Top 30-35 students of JMO will be selected on the basis of combined merit of both the centres. The selected students of JMO will participate in INMO in the month of January 2017 conducted by NBHM. Selection at National level leads to participation at the International Mathematical Olympiad (IMO) through another round of training/test/orientation etc.

You are requested to note carefully the following points while conducting Mathematical Olympiad.

1. The information and the guidelines should be provided to all the Vidyalayas and all eligible students of your region should take part.
2. The Principal of each school will send the list of students registered in Annexure- II to the concerned Regional Offices by 22-08-2016. You are requested to send the consolidated list of the participating students Vidyalaya wise as per the format given in Annexure- VII to the Principal KV Pushp Vihar New Delhi on or before 25th August 2016 with a copy to the Assistant Commissioner (Acad.) KVS HQ.
3. Number of examination centres may be increased if the Deputy Commissioner of the Region feels so keeping in view of the convenience of the students. Principal of each school should send the list of students registered in Annexure- II and attendance sheet in Annexure VI completed in all the respects (except the signature of the candidates) to the respective examination centres and a copy to the Deputy Commissioner of the concerned region. With the help of your Regional Coordinator, you are further requested to send the following data to the National Coordinator just after the JMO examination is over on 4th September 2016

Name of Region	No.of Examination Centres	Total No. of students Registered	Total No. of students Present
----------------	---------------------------	----------------------------------	-------------------------------

4. Nominate 02 Mathematics teachers (one PGT and one TGT) of your region, one as Regional coordinator and another as Associate Regional Coordinator and send their names with mobile nos in Annexure-VIII to National Coordinator, KVS Maths Olympiad and a copy to the Joint Commissioner (Acad.) KVS, HQ on their email id's on or before 22nd August 2016
6. Mr J.P Singh, Principal, Kendriya Vidyalaya, Pushp Vihar, New Delhi- , will be "Director of Evaluation" for JMO -2016.
7. The Principal of the Examination Centre will be the Centre Superintendent for conduct of JMO -2016. The centre charges of conducting JMO -2016 will be met from school VVN as per norms given in Annexure -IX
8. The Centre Superintendent shall make all the necessary arrangements to dispatch the answer scripts of JMO-2016 on or before 05th September (Monday) positively by Speed Post along with one copy of attendance sheet on annexure-VI, and a copy of Annexure -II (Bilingual) after ensuring correct entries and spelling at the following address.

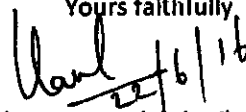
The Principal
Kendriya Vidyalaya, Pushp Vihar
Sector- III, M.B Road New Delhi – 110017

Important email id's for correspondence:

J.C (Acad.) KVS	icacadkvs@gmail.com
A.C.(Acad.) KVS	acacadkvs@gmail.com
The Principal Kendriya Vidyalaya, Pushp Vihar Sector- III, M.B Road New Delhi - 110017(Director of evaluation)	principalkvpushpvihar@gmail.com
National Coordinator KVS	p.gaurishankar@gmail.com

You are requested to encourage teachers to guide and prepare students for their best performance.

This is for your information and necessary action.

Yours faithfully

(Dr. V.Vijayalakshmi)
Joint Commissioner (Acad.)

Junior Mathematical Olympiad (JMO) - 2016

Roll No.

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

Paste recent passport size Photograph attested by the Principal

Registration Form (To be retained by the Vidyalaya for record)

(Roll No. of the eligible student - should be strictly filled in as per instructions given in guidelines)

Note: Candidate should fill up relevant columns of the registration form in his/her own handwriting.

1. Name of the student (in Block letters)

English :.....

Hindi:-----

2. Mother's Name (in Block Letters)

English :.....

Hindi:-----

3.Father's Name (in Block Letters)

English :.....

Hindi:-----

4. Postal address of the KV :-----

5. Studying in: Class Section

6. Grade obtained in Mathematics in class IX / X

7. Marks obtained in class XI (if applicable)

I certify that particulars furnished above are correct.

(Signature of the Candidate)

Verification by Class teacher

Counter Signed by Principal with seal

Junior Mathematical Olympiad (JMO) - 2016

Format for details of Registration to be sent to KVS (R.O.) by KVs

Name of KV

Name of Region:

Roll No	Student's Name in block Letters		Sex M/F	Father's Name		Mother's Name		Class in which student is studying	Grade Marks in JMO obtained in Maths in previous class
	Hindi	Eng		Hindi	Eng	Hindi	Eng.		

Signature of Principal with seal

Junior Mathematical Olympiad (JMO) - 2016

ANNEXURE -III

Admit Card (For student only)

Paste recent
passport size
Photograph
attested by the
Principal

Roll No.

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

(Fill the Roll No. Strictly as per the instructions given in guidelines)

Date of the Examination: 04th September 2016 (Time 10 A.M. to 01:00 P.M.)

Examination Center

(To be filled by KV Concerned)

1. Name of the student (in Block letters)

English:

Hindi: -----

2. Father's Name (in Block Letters)

English:

Hindi:-----

3. Class _____

4. Name of KV -----

5. Region _____

6. Residential Address -----

Signature of the Candidate

Signature of Principal with seal

Signature of candidate in examination hall

Signature of Invigilator

Junior Mathematical Olympiad (JMO) - 2016

NAME OF EXAMINATION CENTRE-

Answer Sheet

Roll Number -

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

Name of the student ----- (in English Capital Letters)

Name of the student ----- (in Hindi)

Father's Name -----

Class _____

Name of Vidyalaya -----

Name of Region -----

Signature of Invigilator

Signature of centre supdt / Principal with
seal.

Marks Awarded

Q.No1	Q.No.2	Q.No.3	Q.No.4	Q.No.5	Q.No.6	Q.No.7	Q.No.8	Q.No.9	Q.No.10	Total

Signature of coordinator
Examiner no.

Signatures of Examiner
Examiner no.

Junior Mathematical Olympiad (JMO) - 2016**List of examination centers at Regional Level**

Name of Region -----

S.N.	Name of test centres with complete postal address & pin code	Email id of the test centres with Phone nos.	Principal's mobile no.	No. of students Regd.	Name of schools covered

Signature of Deputy Commissioner With seal

Junior Mathematical Olympiad (JMO) - 2016

ATTENDANCE SHEET

NAME OF EXAM CENTRE _____ NAME OF REGION _____

Roll No	Student's Name in block Letters		Father's Name		Mother's Name		Name of KV	Class in which student is studying	Signature of candidate in exam hall	Marks obtained in JMO (Please leave blank)
	Hindi	Eng	Hindi	Eng	Hindi	Eng.				

Signature of Centre Supdt. with seal

Junior Mathematical Olympiad (JMO) – 2016

Name of the Region:

S.No	Name of the Vidyalaya	No.of students registered

Total**Signature of Deputy Commissioner with Seal**

Junior Mathematical Olympiad (JMO) - 2016

Name of Region -----

S No.	Name of Coordinator	Name of School	Mobile No.	Email id of the coordinator
1.	Regional -----			
2.	Associate -----			

Signature of Deputy Commissioner With seal

Junior Mathematical Olympiad (JMO) - 2016

Norms of payment of Centre Charges

The Principal will be the Centre Superintendent to conduct the examination. If the no of registered candidates is more than 250, one Deputy Superintendent can be engaged. The remuneration norms are as under:

- 1. Centre Superintendent- Rs. 800/-**
- 2. Deputy Superintendent- Rs. 500/-**
- 3. Invigilators- Rs. 400/- (1:20)**
- 4. Sub staff- Rs 200/- (1:100)**
- 5 Contingency- Rs 500 per center.**

The expenditure will be incurred from VVN of the Vidyalaya examination Centre Concerned.