



DepEd-SDO of Bulacan (Office of the SDO)

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**ZENIA G. MOSTOLES, Ed.D., CESO V**  
Schools Division Superintendent  
Schools Division of Bulacan *A*

Republic of the Philippines  
**Department of Education**  
REGION III-CENTRAL LUZON

**ADVISORY**

No. 001 s. 2022

CORDS SECTION, REGIONAL OFFICE  
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JAN 07 2022

To : SCHOOLS DIVISION SUPERINTENDENTS

From : *M*  
**MAY B. ECLAR, PhD, CESO III**  
Regional Director

Subject : INVITATION TO THE INTERNATIONAL ACADEMIC  
COMPETITIONS OF GLOBAL LEAGUE OF WINNERS, INC.  
(GLOW)

Date : January 4, 2022

1. The Global League of Winners, Inc. (GLOW) will be conducting a series of international academic competitions from February to December 2022.
2. The competitions are open to all Kindergarten and Grades 1 to 12 learners and will be held online.
3. The schools are invited to encourage their learners to join and compete in the competitions at Free Registration. Interested participants may visit the organizer's website at [www.glowincph.org](http://www.glowincph.org) and Facebook page at GLOW, Inc.
4. Attached are the invitation letter from the organizer, guidelines, and mechanics, for reference and other detailed information.
5. For concerns and inquiries, you may contact Engr. Elizabeth M. Rodriguez at [glowincph01@gmail.com](mailto:glowincph01@gmail.com) or 0947 334 8908/0906 092 4068.
6. For information and guidance.

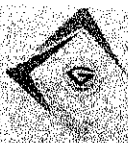
Encls.: as stated

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Address: Matalino St., D.M. Government Center, Maimpis, City of San Fernando (P)  
Telephone Number: (045) 598-8580 to 89 • Email Address: [region3@deped.gov.ph](mailto:region3@deped.gov.ph)





# GLOBAL LEAGUE OF WINNERS INC.

December 28, 2021

**DR. MAY B. ECLAR**  
Regional Region III Director  
Maimpis, City of San Fernando, Pampanga

Thru: Education Program Supervisor (Math)  
Education Program Supervisor (Science)  
Education Program Supervisor (English)

Dear Director,

Warm greetings!

**Global League of Winners, Inc. (GLOW)** is a non-stock and non-profit organization, with Securities and Exchange Commission (SEC) Registration No. 2021110033940-15, that is committed to equip our young learners with the academic skills and mindset to thrive on the competitive world through extensive trainings and international contests. To attain this mission, GLOW launched the different international academic competitions listed below and partnered with more than twenty (20) countries all over the world to collaborate in these projects.

In connection with this, we cordially invite schools under your jurisdiction to encourage their learners to join and compete in the competitions listed below. Each Division Office may send fifteen (15) best performing public school learners to participate at **FREE Registration**. These competitions are open to all Kindergarten and Grades 1 to 12 learners and will be held **ONLINE** on the given dates.

International Competition	Participants	National / International Round	Host Country
<b>IMOCSEA</b> – International Mathematics Olympiad Competition of Southeast Asia	Kinder to Grade 12	April 17, 2022 December 2022	Philippines
<b>GELOSEA</b> – Global English Language Olympiad Competition of Southeast Asia	Kinder to Grade 12	May 15, 2022 December 2022	Philippines
<b>ISOCSEA</b> – International Science Olympiad Competition of Southeast Asia	Grade 1 to 12	June 18, 2022 December 2022	Philippines
<b>i-STEM Olympiad - Mathematics</b>	Grade 1 to 12	Feb. 6, 2022 July 17-24, 2022	Germany
<b>i-STEM Olympiad – Popular Science</b>	Grade 1 to 12	Feb. 6, 2022 July 17-24, 2022	Germany
<b>i-STEM Olympiad – Computer Science</b>	Grade 1 to 12	Feb. 6, 2022 July 17-24, 2022	Germany



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<b>OWLYPIA</b> (S&T, Arts, Bus & Economics, Lit & Culture, Social Sciences)	Grade 1 to 12	Feb 19, Apr 2, May 14, 2022	United Kingdom
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For each of the international competitions hosted by the Philippines, GLOW gives the following awards:

	<b>National Round</b>	<b>International Round</b>
<b>Participants</b>	<ul style="list-style-type: none"> <li>➤ Trophies for TOP 3 Winners</li> <li>➤ Medals &amp; Certificates for all winners (Digital Medal &amp; Certificate for Free Registration)</li> <li>➤ Certificates for Non-winners</li> </ul>	<ul style="list-style-type: none"> <li>➤ Trophies for TOP 3 Winners</li> <li>➤ Medals &amp; Certificates for all winners</li> <li>➤ Certificates for Non-winners</li> <li>➤ Souvenirs for all participants</li> </ul>
<b>Coaches</b>	<ul style="list-style-type: none"> <li>➤ Trophies for Outstanding Coaches</li> <li>➤ Certificates for all coaches</li> </ul>	<ul style="list-style-type: none"> <li>➤ Trophies for Outstanding Coaches</li> <li>➤ Certificates for all coaches</li> </ul>
<b>School</b>	<ul style="list-style-type: none"> <li>➤ Plaque for School of Excellence Award (5 Gold Medalists or more)</li> <li>➤ Plaque for School of Achievers Award (20 Participants or more)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Plaque for School of Excellence Award (5 Gold Medalists or more)</li> <li>➤ Plaque for School of Achievers Award (20 Participants or more)</li> </ul>
<b>DepEd Regional Office</b>	<ul style="list-style-type: none"> <li>➤ Plaque for DepEd Region of Achievers Award (min 30 medalists)</li> <li>➤ Plaque for DepEd Region of Excellence Award (50 or more medalists)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Plaque for DepEd Region of Achievers Award (min 30 medalists)</li> <li>➤ Plaque for DepEd Region of Excellence Award (50 or more medalists)</li> </ul>

GLOW also gives Certificate of Recognition to all concerned DepEd Division Heads and Program Supervisors who are in direct supervision on winning schools and students.

With this representation, the undersigned sincerely appreciate if you could issue and disseminate an ADVISORY for the above listed programs for a greater participation from your region.

For further information and inquiries, please contact:

**ENGR. ELIZABETH M. RODRIGUEZ**


Contact Numbers: +639473348908 / +6309060924068

Email: [glowincph01@gmail.com](mailto:glowincph01@gmail.com)

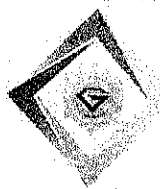
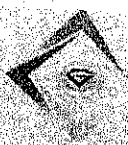
Website: [www.glowincph.org](http://www.glowincph.org)

Facebook page: GLOW, Inc.

Thank you very much and more power!

  
STEPHEN RAYMUND T. JINON, PhD  
GLOW President





## INTERNATIONAL MATHEMATICS OLYMPIAD COMPETITION OF SOUTHEAST ASIA

### ABSTRACT

*What is IMOCSEA?*

The **INTERNATIONAL MATHEMATICS OLYMPIAD COMPETITION OF SOUTHEAST ASIA** is an international competition in **Mathematics** for Kindergarten, six Primary Levels (Grades 1 to 6), four Secondary Levels (Secondary 1 to 4) and one Senior Secondary Level (Grade 11 & 12). It aims to promote excellence and proficiency in Mathematics through friendly global competitions and to promote **Southeast Asian's tourism**, with Philippines as the first destination, then Indonesia, Singapore, Malaysia, and other SEA countries to other country partners worldwide.

*What are the contents of each competition level in IMOCSEA?*

#### I. Kindergarten & Lower Primary Levels (Grades 1 to 2)

- A. **Arithmetic and Number Theory** - Number & Number Sense, Fundamental Operations, Cryptarithm/Alphametics, Least/Greatest Number, Ordinals, Fractions, and Other Operations.
- B. **Logical Analysis** – Comparison and Replacement, Excess-Shortage Calculations, Assumptions (Cars & Bicycles, Chicken & Rabbit), Recursive Patterns, Page Number Problems, Tessellations; Shortest Path Analysis, Abstract Reasoning and Data Handling.
- C. **Geometry** – Perimeter, Area, Geometric Figures (Counting Figures and Symmetry), and Measurements of Time, Money, Temperature, etc.
- D. **Combinatorics** - Pigeonhole Principle, Counting Principle, Arrangement, and Probability.

#### II. Middle and Upper Primary Levels (Grades 3 to 6)

- A. **Arithmetic and Number Theory** - Number & Number Sense, Fundamental Operations, Cryptarithm/Alphametics, Least/Greatest Number, Ordinals, Fractions, Decimals, Percent, Ratio and Proportion, Order of Operations, Remainder Theorem, Number Patterns, Other Operations, Prime Factorization, Divisibility, Greatest Common Factor, Least Common Multiple, Euclidean Algorithm, Modular Arithmetic, Indices, and Bases other than 10





- B. **Logical Analysis** – Comparison and Replacement, Excess-Shortage Calculations, Assumptions (Cars & Bicycles, Chicken & Rabbit), Recursive Patterns, Page Number Problems, Maximum/Minimum Concept, Approximations, Variable Relationships, Truth Analysis, Data Handling, Work Problem, Venn Diagram, Tessellations; and Shortest Path Analysis and Data Handling.
- C. **Geometry** – Perimeter, Area, Surface Area, Volume, Geometric Figures (Counting Figures and Symmetry), Measurements of Time, Money, Temperature, Pythagorean Theorem (Pythagorean Triples), Congruence, Money Problem, Motion Problem, and Clock Problem
- D. **Combinatorics** – Pigeonhole Principle, Counting Principle, Arrangement, Stairs Problem (Fibonacci series), Permutation, Combination, and Probability.

### III. Secondary Levels

- A. **Number Theory** - Number & Number Sense; Real Numbers; Infinite Complex Fractions; Divisibility; Ratio, Proportion and Variations; Indices and Radicals; Bases other than 10; Modular Arithmetic, Diophantine Equation and Euclidean Algorithm; Fermat's Theorem; Sums of Divisors; The  $\phi$  Function; Wilson's Theorem; The Pell Equation; and General Methods.
- B. **Logical Analysis** – Mathematical Induction; Infinite Series; Progressions (Sequences & Series); Summation; Set Theory; Model Theory; and Recursion Theory and Data Handling.
- C. **Algebra** – Indices and Radicals; Factorization and Manipulations; Polynomials; Functions (Transformation and Inversion); Linear & Quadratic Functions; Systems of Linear & Quadratic Equations; Absolute Value Inequalities; Trivial Inequality; Linear & Quadratic Inequalities; Binomial Theorem; Remainder Theorem; Rational Expressions; Exponential and Logarithmic Functions
- D. **Geometry** – Plane Figures (Perimeters, Areas); Analytic Geometry (Coordinates, Distance, Slopes, Circles & Conics); Three Dimensional Geometry (Cubes, Boxes, Cylinders, Spheres, Prisms, Cones, Pyramids, and Polyhedron); Translations (Shifts, Turns, Flips, Stretches, Squeezes); Triangles (Angles and Trigonometric Functions) and Triangle Similarities & Congruencies; and Quadrilaterals and Polygons.
- E. **Combinatorics** – Identities; Pascal's Identity; Binomial Theorem; Counting and Probability (Constructive Counting, 1-1 Correspondence, Pigeonhole Principle); Fibonacci Numbers, Recursion; Permutation; Combination; Expectation; and Conditional Probability

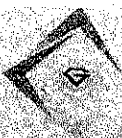
### *What are the guidelines in the administration of the test?*

Each participant's test booklet for written test is provided with the following guidelines:

#### A. Kindergarten & Primary Levels (Grades 1 to 6)

1. You have 90 minutes to finish the test.
2. You may write your solutions on the **TEST BOOKLET**.
3. Write your answers on the **ANSWER SHEET**.





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4. After the test, you must **SUBMIT** to the proctor both the **TEST BOOKLET** and the **ANSWER SHEET**.
5. This test covers **FOUR (4) CATEGORIES** namely: **ARITHMETIC & NUMBER THEORY, LOGICAL ANALYSIS, GEOMETRY, and COMBINATORICS**.
6. This test has two parts: **Multiple Choice Questions** (the first twenty questions) and **Short Answer Questions** (the last eight questions). The first twenty (20) MCQs are worth 3 marks each and the last eight (8) SAQs are worth 5 marks each. The highest possible score is 100 marks. No point shall be deducted for incorrect answer.
7. You are **NOT ALLOWED** to use any calculating device during the test proper.
8. Any form of cheating is a ground for **DISQUALIFICATION**.

## **B. Secondary Levels 1 to 4 & Senior Secondary Level**

1. You have 90 minutes to finish the test.
2. You may write your solutions on the **TEST BOOKLET**.
3. Write your answers on the **ANSWER SHEET**.
4. After the test, you must **SUBMIT** to the proctor both the **TEST BOOKLET** and the **ANSWER SHEET**.
5. This test covers **FIVE (5) CATEGORIES** namely: **NUMBER THEORY, LOGICAL ANALYSIS, ALGEBRA, GEOMETRY, and COMBINATORICS**.
6. This test has two parts: **Multiple Choice Questions** (the first twenty questions) and **Short Answer Questions** (the last eight questions). The first twenty (20) MCQs are worth 3 marks each and the last eight (8) SAQs are worth 5 marks each. The highest possible score is **100 marks**. No point shall be deducted for incorrect answer.
7. You are **NOT ALLOWED** to use any calculating device during the test proper.
8. Any form of cheating is a ground for **DISQUALIFICATION**.

## ***What are the awards to be given to IMOCSEA participants?***

- A. **National Round** – IMOCSEA Awards Committee shall recognize the participants in this manner:
  - a. **Higher 60% of the total number of participants** shall qualify to the International Round and shall be entitled to one of these awards based on their scores:



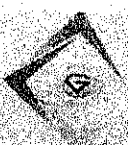
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- 90 points or higher - Diamond Medal & Certificate
- 75 – 89 points - Gold Medal & Certificate
- 60 – 74 points - Silver Medal & Certificate
- Below 60 points and Remaining Participants in the 60% cut - Bronze Medal & Certificate
- Top Scorers - Trophy (Glass)

b. Lower 40% of the participants shall receive either of the following:  
 Below 60% - Honorable Certificate

### Global Ranking:

- Champion - Trophy (Convertible to Cash for Overseas)
- 1<sup>st</sup> Runner Up - Certificate
- 2<sup>nd</sup> Runner Up - Certificate
- 3<sup>rd</sup> Runner Up - Certificate

B. International Round – IMOCSEA Awards Committee shall recognize and award the participants based on the following criteria:

- 90 points or higher - Diamond Medal & Certificate
- 75 – 89 points - Gold Medal & Certificate
- 60 – 74 points - Silver Medal & Certificate
- Below 60 points and Remaining Participants in the 60% cut - Bronze Medal & Certificate

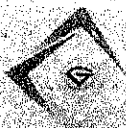
**Special Awards** – For every level, the IMOCSEA Awards Committee shall give additional awards to:

- Perfect Scorer\* - Cash
- Champion (Rank 1) - Trophy
- First Runner Up (Rank 2) - Trophy
- Second Runner Up (Rank 3) - Trophy
- Third Runner Up - Trophy
- All Participants - Kit of Souvenirs (T-shirt, pins, keychains, etc)

### When is the schedule of IMOCSEA competition?

IMOCSEA shall give its country partners the prerogatives to choose the specific date of the holding of their respective **National Round** sometime between APRIL and JULY of every year. Results will be posted ONE (1) week after the sitting date.

The **International Round** is tentatively scheduled in the month of **DECEMBER** of the same year in the chosen Southeast Asian destination.



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## ***When is the National Awarding ceremony?***

Each country partner shall conduct their respective awarding ceremony *within two months* after the competition.

## ***When is the release of the Global Ranking of the National Rounds?***

Global ranking shall be available for posting and dissemination not later than August 30. This shall also be posted in the official GLOW, Inc. website, [www.glowincph.org](http://www.glowincph.org).

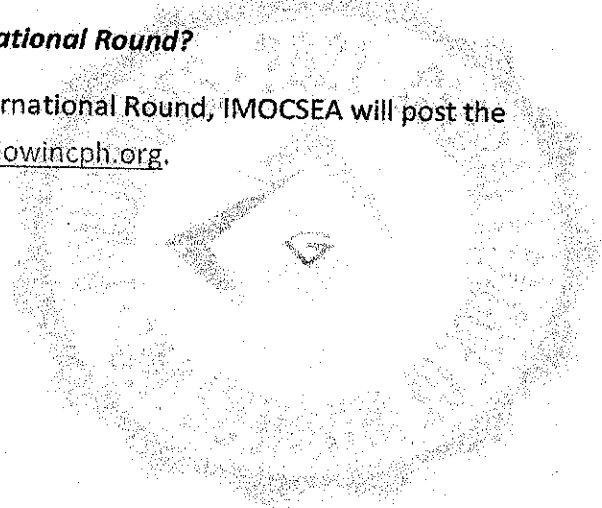
## ***What shall be done in case of tie in the first three ranks in the International Round?***

In dealing with ties in scores in the first three ranks, the IMOCSEA Test Committee will break the tie in the following manner:

1. The committee shall go over the test booklets and answer sheets of the concerned participants and whoever has the better solutions shall be declared the winner.
  2. Should there still be ties after this measure, the scores of the contestants in the National Round shall be compared and whoever has the higher score shall be declared the winner.
  3. Should there still be ties after the second tie-breaking measure, the age of the concerned participants shall be compared and whoever is younger in months or years shall be declared the winner.
  4. If the tie has not been settled after the third tie-breaking measure, the committee shall require the concerned participants to undergo a tie-breaking test compose of five (5) Short Answer Questions and whoever gets a higher score shall be declared the winner.
- The decision of the IMOCSEA Test Committee shall be final and irreversible.

## ***When is the posting of the official result of the International Round?***

Two (2) weeks after the culmination of the International Round, IMOCSEA will post the official result of the competition in its website, [www.glowincph.org](http://www.glowincph.org).



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