January 6, 2020

MEMORANDUM TO:

OIC-Office of the Assistant Schools Division Superintendent
Chief Education Supervisors, CID and SGOD
Elementary and Secondary School Principals
Officers-in-Charge
Public Schools

PISIKAalam 2020

Attached is Regional Advisory No. 328, s. 2019 dated December 19, 2019
re: PISIKAalam 2020, an inter-high school Physics Quiz Bee on February 15, 2020
at the National Institute of Physics, College of Science, University of the Philippines,
Diliman, Quezon City, content of which is self-explanatory.

This is issued for information purpose only and not an indorsement of the activity.

SHERYL T. GAYOLA
Education Program Supervisor
Officer-In-Charge
Office of the Schools Division Superintendent

Maka-Diyos, Makatvo, Makakalikasan at Makabansa
Advisory No. 223, s. 2019
December 19, 2019

In compliance with DepEd Order No. 8, 2013
this Advisory is issued not for endorsement per DO 28, s. 2001,
but for the information of DepEd officials,
personnel/staff, as well as the concerned public.
(Visit www.deped.gov.ph)

PISIKAalaman 2020

UP Physics Association (UPPA) will organize PISIKAalaman 2020, an annual inter-high school Physics Quiz Bee on February 15, 2020 at the National Institute of Physics, College of Science, University of the Philippines, Diliman, Quezon City.

The activity aims to provide students to excel in Physics through a competitive activity and to encourage them to pursue science-related programs in the future, especially Physics in the tertiary level.

For more information, you may contact:
Lemuel Gavin G. Saret
Vice President for External Affairs
Email: upphysics@gmail.com
Mobile No.: 0945 322 1394

Clmd/mgp
Dr. Malcolm S. Garma  
Regional Director  
Department of Education – NCR

17 December 2019

Dear Sir:

Greetings!

The UP Physics Association (UPPA) is an established academic and non-profit organization committed to the promotion and development of Physics inside and outside the University of the Philippines Diliman. For over thirty years now, UPPA has been creating projects and organizing events that are centered towards this goal.

UPPA will once again organize PISIKAalaman 2020, an annual inter-high school Physics quiz bee, now geared for the K-12 curriculum of the Philippines. Since its conception in 2004, this event has been striving to provide an alternate way for students to excel in Physics through a competitive activity and to encourage them to pursue science-related programs in the future, especially Physics in the tertiary level.

Having these in mind, we are humbly requesting your office to assist us in the promotion of PISIKAalaman 2020 to senior high schools across the region and country. The event will be held on February 15, 2020 at the National Institute of Physics, College of Science, University of the Philippines Diliman.

Attached is a copy of the event guide. Should you have any questions, please contact us via upphysics@gmail.com or through the given contact details below.

Thank you very much!

In the spirit of uplifting Science,

[Signature]

Lemuel Gavin G. Saret  
Vice President for External Affairs  
0945 322 1394
ABOUT THE EVENT

PISIKAalaman is an annual inter-high school Physics quiz bee held by the UP Physics Association that is now geared for the revised basic education curriculum of the Philippines. This event aims to provide another way for students to excel in Physics through a competitive activity, and to encourage students to pursue science-related programs in the future, especially in the tertiary level.

RULES AND MECHANICS

I. Registration

A. The registration period is from January 06, 2020 until January 24, 2020.

B. Teams that wish to register for PISIKAalaman must pay a registration fee of three hundred pesos (P300). Registration will only be confirmed when the registration fee has been paid. All interested teams are required to register at https://tinyurl.com/pisika2020 on or before January 24, 2020. Slots are limited only up to 20 participating schools.

C. Modes of payment:

   i. Bank Account

      BDO Savings Account
      Renee Calista Fernandez
      8150096588

   ii. Direct Early Payment

      UP Physics Association
      National Institute of Physics
      University of the Philippines – Dilliman
      Quezon City, Metro Manila, 1101
      upphysics@gmail.com

D. Proof of payment for registration of the event must be sent to upphysics@gmail.com. Acknowledgment of payment will be sent through the registrant’s/team adviser’s email.

E. The contact details of the event organizer are as follows:

   Matthew Joseph Banaag (Organization President) – 0917 306 6401
   Gene Carlo Belinaro (Event Head) – 0939 642 2079
   Kobe Brian Sacres (Event Head) – 0945 431 3183
II. General Competition Guidelines

A. Participants

1. All senior high schools in the Philippines are eligible to register a maximum of two (2) teams in the competition.

2. Each team should be composed of exactly three (3) members. Only bona fide senior high school students at any level, taking the STEM track and enrolled in the participating school, are eligible to be a member of the team.

3. Team members must bring their valid school ID on the day of the event for identification purposes.

4. Team composition may be changed until the start of the elimination round. The organizers must be informed when a team decides to replace any of its members.

B. Competition Proper

1. Pisikaalaman 2020 will be held in the National Institute of Physics, University of the Philippines-Diliman. Thus, all participants must comply with the rules and regulations in application within the campus.


3. Elimination Round
   
a. This will be an individual written exam consisting of 30 items.

b. Each team member will be required to answer the said exam for 45 minutes.

c. The exam will be identical for all.

d. Contestants may only use a black or a blue pen. Test papers, answer sheets, and scratch papers will be provided.

e. At the end of the exam, answers will be graded. The Top 15 teams with the highest cumulative number of points will proceed to the Semi-Finals Round.

f. The scores of the Top 15 teams will be posted. For transparency, answers and solutions to the questions will also be posted.

g. However, test papers will not be returned to teams. It is highly advisable for teams to take note of their answers.
h. In case of a tie, a tie-breaker round will take place. Teams who tied together will be asked to answer another individual written exam consisting of 10 items. Each student will be required to answer the said tie-breaker exam for 5 minutes. Team/s with the highest cumulative number of points will proceed to the next round.

i. Eliminated teams in this round will then be qualified to participate in the Wildcard Round.

4. Semi-finals Round

a. Questions in this round will be answered in teams.

b. Each team will be given a marker and a board to show their answers. Solutions are not needed to be shown. Scratch papers will be provided.

c. This round will be divided into three parts: Easy, Moderate, and Hard.

d. There are 7 questions for the Easy round, 7 questions for the Moderate round, and 6 questions for the Hard round.

e. Points for each question in each round will amount as follows: Easy - 20; Moderate - 40; Hard - 60.

f. Answering time for each question in each round will be as follows: Easy - 45 seconds; Moderate - 1 minute; Hard - 1 minute 30 seconds.

g. The Top 6 teams with the highest number of points will go through to the Finals round.

h. In case of a tie, a Clincher round will take place, consisting of five (5) questions. Each question will have an equal bearing and a specified amount of answering time, with accordance to the difficulty of the question.

i. If the Clincher round can’t break the tie, a Sudden Death round will occur.

j. For the Sudden Death round, questions will be given until a team fails to answer a question and is eliminated. The last team standing wins the Sudden Death round.

k. Eliminated teams in this round will then be qualified to participate in the Wildcard Round.

5. Wildcard Round

a. Only the teams eliminated from the Elimination and Semi-final rounds are qualified to participate in the Wildcard Round.

b. Questions in this round will be answered in teams.

c. Each team will be given a marker and a board to show their answers. Solutions are not needed to be shown. Scratch papers will be provided.
d. Each question is a Sudden Death round where questions will be given until only one team is the last one standing.
e. The last team standing will then earn a spot to compete in the Finals Round.

6. Finals Round

a. Questions in this round will be answered in teams.
b. Each team will be given a marker and a board to show their answers. Solutions are not needed to be shown. Scratch papers will be provided.
c. This round will be divided into three parts: Easy, Moderate, Hard.
d. There are 7 questions for the Easy round, 7 questions for the Moderate round, and 6 questions for the Hard round.
e. Points for each question in each round will amount as follows:
   Easy - 20; Moderate - 40; Hard - 60.
f. Answering time for each question in each round will be as follows:
   Easy – 45 seconds; Moderate - 1 minute 30 seconds; Hard - 3 minutes.
g. The Top 3 teams with the highest number of points will be awarded as the Champion, First Runner-up, and Second Runner-up. Winners will receive a cash prize, and a trophy.
h. In case of a tie, a Clincher round will take place, consisting of five (5) questions. Each question will have an equal bearing and a specified amount of answering time, with accordance to the difficulty of the question.
i. If the Clincher round can’t break the tie, a Sudden Death round will occur.
j. For the Sudden Death round, questions will be given until a team fails to answer a question and is eliminated. The last team standing wins the Sudden Death round.

7. In case a contestant raises a concern about the answer, the board of judges will be inclined to address the concern. Any decision made by the said board will be final and irrevocable.

8. The said board also has the power to void a question.
9. Only a contestant has the right to raise a concern. Any comments and concerns from the audience members (advisers included) will not be entertained.

10. Scientific calculators are allowed. Before each round starts, contestants are required to submit their calculators for inspection and resetting.

11. Sheets containing general formulas and equations will be provided. However, contestants are highly discouraged to rely solely on these formula sheets. Participants are advised to memorize and/or familiarize themselves with useful and necessary equations.

12. Cheating in any form will NOT be tolerated. Contestants/teams that are proven guilty of cheating will automatically be disqualified.

13. Teams who qualified for the succeeding round, should enter the contest hall on time. Qualified teams who fail to be within the venue five (5) minutes after the designated time, will be disqualified.

III. Prizes

A. The top three teams will be named as the Champion, First Runner-up, and Second Runner-up respectively, and shall receive a coveted PISIKAalaman trophy.

B. Cash prizes shall be given to the said top three teams.

C. Certificates of participation shall be given to the contestants and advisers at the end of the event.
TOPIC COVERAGE

The topics included will come from the General Physics curriculum of a Grade 12 student who is following a STEM track.

General Physics I

1. Vectors
2. Kinematics: Motion Along a Straight Line, in 2-Dimensions and in 3-Dimensions
3. Newton’s Laws of Motion
5. Center of Mass, Momentum, Impulse, and Collisions
6. Rotational equilibrium and rotational dynamics
7. Mechanical Waves and Sound
8. Temperature and Heat, Ideal Gases, and the Laws of Thermodynamics

General Physics II

1. Electrostatics (Electric Charge, Electric Fields, Electric Flux and Electric Potential)
2. Capacitance and Dielectrics
3. Current, Resistance, and Electromotive Force
4. DC Circuits
5. Magnetostatics
6. Light as an EM Wave
7. Geometric Optics
8. Interference and Diffraction
9. Relativity
10. Atomic and Nuclear Phenomena