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	DIVISION ADVISORY		Name of Office: OSDS-SDS

DIVISION ADVISORY
 No. 27 S. 2019


RELEASED

To: Heads of Public Secondary Schools

From: Schools Division Superintendent


Subject: Society of Young Engineers Towards Achieving Excellence (SYNTAX)

Date: January 28, 2019

JAN 29 2019
 By 
 DepED Angeles City
 Division of City Schools

Please be informed that the Society of Young Engineers Towards Achieving Excellence (SYNTAX) under the auspices of the Office of the Associate Dean of the College of Engineering of De La Salle University has an activity called EMERGE, an annual quiz showdown staged for junior high school students who are inclined to pure sciences on February 23, 2019 at Br. Andrew Gonzales Hall, De La Salle University, Malate, Manila.

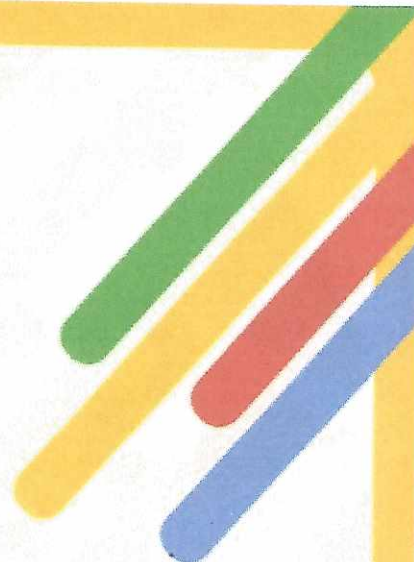
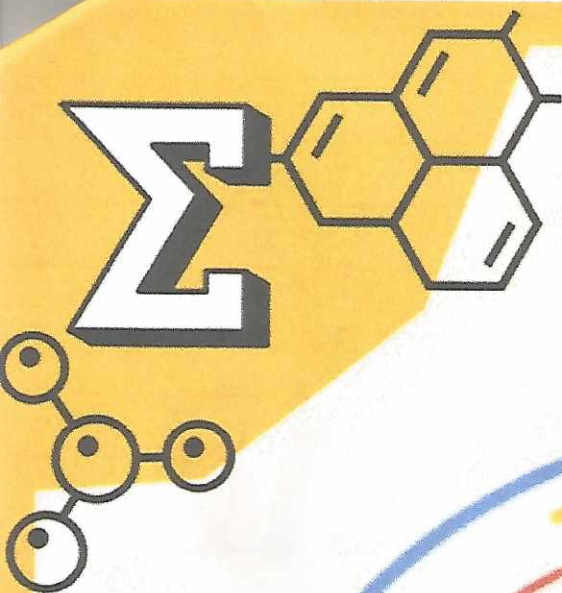
Attached are the Pre-Contest Mechanics of EMERGE 2019, for your reference and information.


LEILANI S. CUNANAN, CESO VI
 Schools Division Superintendent

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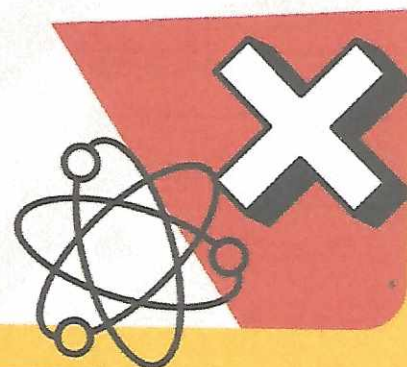
"SMILES BRIGHT, SERVES RIGHT"

cn # 2019-029



EMERGE

2019



WHAT IS EMERGE?

The Society of Young Engineers Towards Achieving Excellence (SYNTAX) operates under the auspices of the Office of the Associate Dean of the College of Engineering and is the sole undergraduate academic organization of the College.

SYNTAX, besides working on projects that are aimed to improving the academic experience of its engineering fellows, platforms events that caters to high school students in the country who are inclined to science and mathematics.

One of these activities is EMERGE, an annual quiz showdown staged for junior high school students all over the Philippines. Now on its fifth installment, EMERGE 2019 opens its doors to young brilliant minds for a competition of knowledge and skills in pure and applied sciences, with reinforced difficulty and a whole new set of rules.

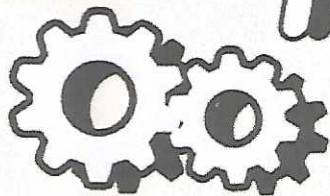


PROGRAMME

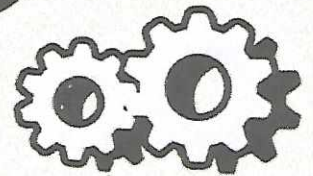
8:00 – 8:45 AM	REGISTRATION	Andrew 7 th Floor Room 703
9:00 – 11:00 AM	DERIVATIVE ROUND	Andrew 7 th Floor Room 703
11:00 – 12:30 PM	LUNCH	Andrew 20 th Floor Multipurpose Hall
12:30 – 12:45 PM	PROGRAM	Andrew 20 th Floor Multipurpose Hall
12:45 – 1:00 PM	ANNOUNCEMENT OF QUALIFIERS & AWARDING OF CERTIFICATES	Andrew 20 th Floor Multipurpose Hall
1:00 – 2:30 PM	INFLECTION ROUND	Andrew 20 th Floor Multipurpose Hall
2:30 – 4:30 PM	FINAL ROUND	Andrew 20 th Floor Multipurpose Hall
4:30 – 5:00 PM	AWARDING OF WINNERS & CLOSING REMARKS	Andrew 20 th Floor Multipurpose Hall



MECHANICS



Pre-Contest Mechanics



1. Teams must register online through the link bit.ly/EMERGE19Registration on or before February 13, 2019.

2. Each team must pay a registration fee of Php 600.00 to participate. Registrations and payments made before February 3, 2019 are entitled to an early bird fee of Php500.00 per team. Payments must be made through bank deposit:

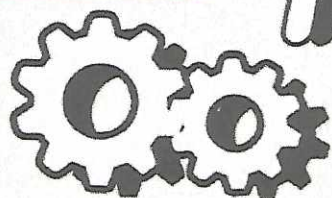
Bank: **Banco De Oro (BDO)**
Account Name: **Sarah Dominique Tan**
Account Number: **000880230975**

3. Before making payments, kindly wait for an e-mail from the Partnerships Committee to make sure that the pre-registered teams make it to the cut. Only the first 40 teams to confirm their slots will be accepted.

4. On the day of the competition, participants must wear pants and closed shoes to conform with DLSU dress code policy.

5. Registration will start at 8:00 a.m. on the day of the competition. Members of each team must present to the Inspection Officers their IDs to check their names against the list of participants submitted during the online pre-registration.

MECHANICS

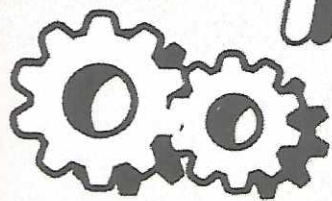


Pre-Contest Mechanics

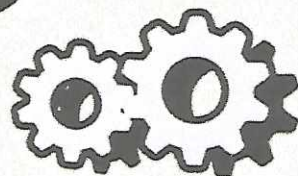


6. Each contestant is expected to bring his/her own BLACK pen(s) and calculator in the competition. Only non-programmable and non-graphing calculators are allowed to be used. All calculators must be presented to the Inspection Officers before proceeding to the assembly hall.
7. Each registered team should consist of exactly three (3) contestants. In case the team decides to replace a rostered member, a substitute may be registered in place of that member.
8. If at least one member of a team fails to present himself/herself by the end of registration period, that team will be automatically disqualified.
9. No substitution will be allowed during the entire course of the competition. If for a certain reason a member decides to drop from the team, the rest of that team may opt to continue, provided that no substitution will be allowed for the leaving member.
10. Inquiries and/or clarifications concerning the contest rules and mechanics shall only be entertained by the Rules Steering Committee.
11. Changes in the rules made by the Event Executive Board during the contest proper with the consensus of the Panel of Judges are considered valid and irrevocable. Participants will be properly informed of these changes.

MECHANICS



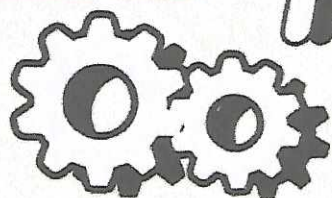
Contest Mechanics



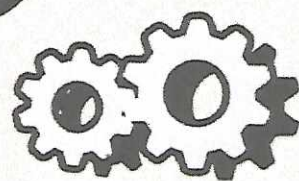
1. The competition is divided into three (3) main parts: the Derivative Round, the Inflection Round, and the Emerge Round.
2. The Derivative Round consists of a written exam while the two other rounds are in oral quiz bee format.
3. Questions are divided into four (4) main categories: Mathematics, Biology, Chemistry, and Physics.
4. All questions shall be based on the SI unit of measurement.
5. For uniformity, contestants must use the following constants:

Acceleration due to gravity, $g = 9.8 \text{ m/s}^2$
Density of water, $\rho = 1000 \text{ kg/m}^3$
6. Final numerical answers must always be written in two (2) decimal places unless otherwise stated. Rounding off to the nearest hundredths (i.e. second decimal place) should be carried over if necessary.
7. Units of measurement must be included in describing quantities for final answers.

MECHANICS



Contest Mechanics



8. Answers will be considered incorrect if any of the following conditions are met:

- The answer is wrong
- No answer is written
- The answer is not expressed in two decimal places (for numerical answers), if necessary
- The answer lacks or has incorrect units and/or direction, if necessary
- The answer is written illegibly
- For multiple choice questions: the answer is not written in capital letter
- For true or false questions: the answer is not expressed or worded out as "true" or "false"

For oral rounds:

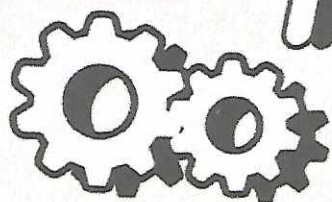
- The team handed to the quiz marshal their whiteboard late
- There are other things written on the board, aside from the answer (e.g. solutions, scribbles)

9. Should any contestant decide to leave in the duration of any round, he/she will not be allowed to return until the end of the round.

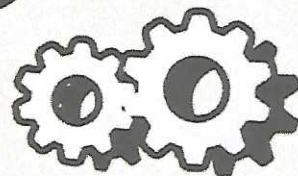
10. Any queries and challenges to the rules raised during the contest proper will be addressed by the Rules Steering Committee. Their decisions will be considered final and irrevocable.

11. Concerns regarding the technicality of answers (i.e. alternate forms, validity and limitations of concept used) shall be raised until before the next question is revealed. Only students are allowed to approach the Panel of Judges for any clarifications. No questions from the coaches and audience will be entertained.

MECHANICS

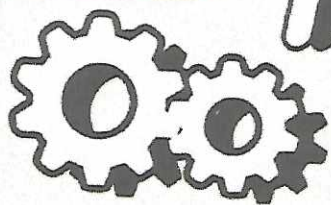


Derivative Round

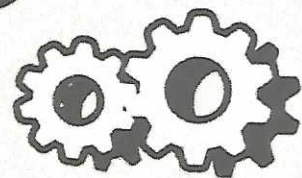


1. The Derivative Round consists of a 50-item multiple choice type of exam composed of topics stipulated in this manual.
2. Each member of participating teams will answer the exam individually for two (2) hours.
3. Use of calculator is allowed during the examination provided that the calculator meets the requirements mentioned above.
4. Students will be provided a scannable answer sheet on which he/she will place his/her answer by shading the corresponding circle properly. Only BLACK pens are allowed to be used in shading the answer sheet.
5. The individual scores in each team will be added at the end of round. The cumulative score of each team shall determine its rank among all teams. Only those teams that will make it to the top 30% will be eligible to join the oral rounds.
6. The head of the Documentation Committee shall announce after lunch the teams that will proceed to the Inflection round.
7. Scores in the Derivative Round will neither be posted nor will be announced and no inquiries regarding this concern shall be accommodated by any officer from the Documentation Committee. Decisions regarding the result of this round are final and irrevocable.

MECHANICS

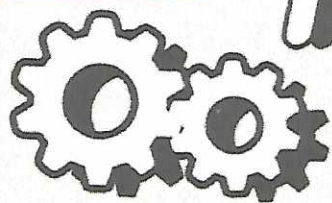


Inflection Round

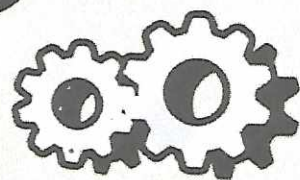


1. The Inflection Round is in an oral quiz bee format. Only the top 30% of all participating teams in the Derivative Round are allowed to take part in this round. Should a team fail to present itself at the contest hall after the reading of the mechanics, the competition shall proceed to begin and shall not allow the team to join the quiz until the end of the first part of Inflection Round.
2. Questions in this round will be selected from the list of topics stipulated in this manual.
3. Use of calculator is allowed unless otherwise specified.
4. The Inflection Round is divided into four (4) parts
– Easy, Average, Difficult, and Reinforced Difficult.
5. There are ten (10) 30-second questions in the easy round worth 1 point each, ten (10) 60-second questions in the average round worth 3 points each, five (5) 90-second questions in the difficult round worth 5 points each, and five (5) 120-second questions in the reinforced difficult round worth 7 points each.
6. The quiz master will read each question twice. Only after the first reading can the teams start writing. After saying the word 'GO', only will the indicated time start to run.
7. A buzzer sound will indicate that the time is already up and that teams will have to hand their boards to their respective quiz marshals. Only a quiz marshal can raise a team's board to show the judges the answer on it.
8. Only the top 6 teams at the end of Inflection Round will proceed to the Emerge Round.

MECHANICS

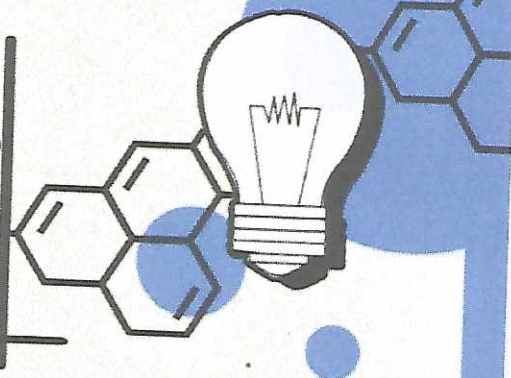


Emerge Round



1. The Emerge Round is an oral quiz in the *Jeopardy* game format.
2. All scores from the previous round shall not carry over in this round but will be used to determine the order by which the teams get to choose the topic and question.
3. Use of calculator is allowed unless otherwise specified.
4. Seven (7) topics:
(Algebra, Trigonometry, Geometry, Probability and Statistics, Biology, Chemistry, and Physics) will be displayed on screen from which the teams may choose a question. There are 6 questions for every topic each with a corresponding point value. A point value may take a value of 2, 4, 6, 8, 10, or 12 according to difficulty.
5. The team which garnered the highest score in the Inflection Round gets to choose the first topic and point value. The second ranking team follows with the third ranking next and so on.
6. While only one team gets to choose the topic and point value at every turn, all teams can answer the question. A question answered correctly earns a team points equivalent to the point value of that question. However, a wrong answer will deduct points from the team's score (present worth) equivalent to the question's point value.
7. Two (2) questions in the entire pool are randomly selected Daily Double questions. During a Daily Double, the playing team must wager a minimum of 2 points and a maximum equivalent to their present worth. If the team gets the answer correct, their present worth earns the points they wagered. Otherwise, their present worth is deducted by the points they wagered.
8. A team can opt to pass and not answer but only twice during the entire round. However, no teams will be waived with passes during Daily Doubles.
9. The teams to get the top three (3) highest scores at the end of the round shall be declared as the winners.

COVERAGE OF TOPICS



MATHETMATICS

- A. Algebra
 - 1. Special products
 - 2. Rational equations and inequalities
 - 3. Exponential functions
 - 4. Logarithms
 - 5. Sequences and series
 - 6. Binomial expansion
- B. Geometry
 - 1. Quadrilaterals and circles
 - 2. Analytic geometry
 - 3. Solid geometry
- C. Trigonometry
 - 1. Trigonometric functions and equations
 - 2. Angles of depression and elevation
 - 3. Laws of sine and cosine
 - 4. Trigonometric identities
- D. Probability and Statistics
 - 1. Measures of central tendency
 - 2. Measures of variability
 - 3. Combinatorics and permutation

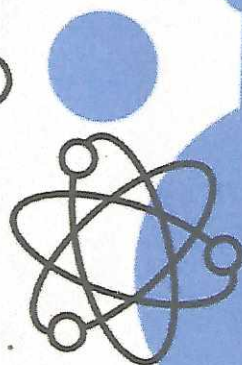
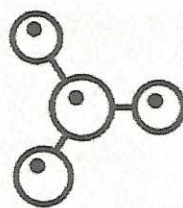
BIOLOGY

- A. Cell biology
 - 1. Membrane structure and function
 - 2. Protein synthesis
 - 3. Cellular respiration and fermentation
 - 4. Photosynthesis
 - 5. The cell cycle

CHEMISTRY

- A. Atoms, molecules, and ions
 - 1. Discovery and modern view of atomic structure
 - 2. Molecules and molecular compounds
 - 3. Ions and ionic compounds
 - 4. Naming inorganic compounds
- B. Stoichiometry
 - 1. Chemical equations
 - 2. Avogadro's number and the concept of mole
 - 3. Limiting reactants
- C. Chemical bonding
- D. Ideal gas law

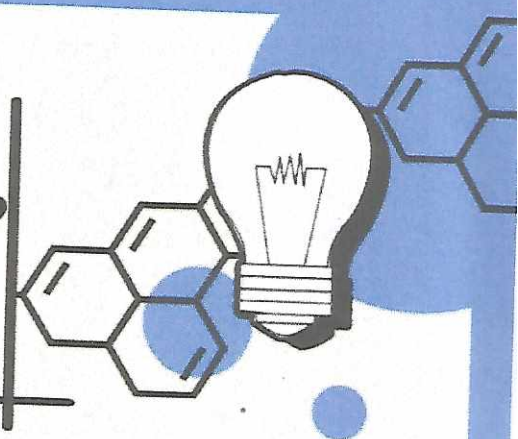
COVERAGE OF TOPICS



PHYSICS

- A. Vectors
- B. Kinematics
 - 1. Rectilinear motion
 - 2. Projectiles
 - 3. Uniform circular motion
- C. Kinetics
 - 1. Newton's second law and equation of motion
 - 2. Work and energy
 - 3. Linear impulse and linear momentum
- D. Magnetic fields
 - 1. Force due to a magnetic field
 - 2. Magnetic field due to a current
- E. Optics
 - 1. Laws of reflection and refraction
 - 2. Images from spherical mirrors
 - 3. Thin lens and the lens maker's equation
- F. Nuclear physics
 - 1. Properties of nucleus
 - 2. Alpha and beta decays
 - 3. Nuclear half-life

COVERAGE OF TOPICS



MATHETMATICS

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 - 2. Rational equations and inequalities
 - 3. Exponential functions
 - 4. Logarithms
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 - 6. Binomial expansion
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