February 10, 2015

Dear Parent/Guardian:

The Computer Club at Glenforest is sending 5 teams of 4 students each that will compete at the regional ECOO competition (at Turner Fenton S.S.) in an effort to have a team reach the nationals later in this semester. This activity is under the supervision of Mr. Johnston and Mr. Camilleri. This will require your son/daughter be excused at 12:25 and to leave school property on March 27th @ 1:20 p.m. and return on the same day at approximately at 6:30 p.m.

Transportation is by taxi van with the supervision of Mr. Johnston and Mr. Camilleri. The cost per pupil for the excursion is $10 (for the taxi vans) and some food will be provided by the organizers of the competition onsite. This will consist of some light food when we arrive and some pizza at the end of the day. With this in mind, students are encouraged to get some food eaten before getting on the taxi vans. Students are to meet in the school foyer at 1:20 p.m.

The excursion is an extension of the regular school program. Accordingly, expectations regarding student behaviour are the same as those for the regular school day. While we do not anticipate any problems, any serious breach of expected conduct on the part of a student may result in that student being sent home at the expense of the parent and further disciplinary action may be imposed. In order for your child to participate in this excursion, we need the following information:

Health Card #: _____

Allergies: _____

Does your child require an Epipen (yes/no – if so, ensure it is present please)? _____

We are looking forward to an exciting and educationally meaningful excursion. Please indicate your acceptance of the conditions outlined above by completing and returning to the school the attached form by Wednesday March 25 with the $10 travel fee (cash or cheque payable to Glenforest S.S.).

Sincerely,
Mr. Johnston

_____

_____

Consent to be driven home

This note is to state that I _____ am giving
permission to _____ (student name) to come home
with me in my car instead of travelling with the team to Glenforest S.S. and I am also
stating that I am the _____ (please state relationship to student) of
this student.

Site: Turner Fenton Secondary School, 7935 Kennedy Road South (Kennedy Rd. south of
Steeles), Brampton, ON

Date: _____

Parent's signature: _____

Student's signature: _____

ECOO Programming Contest Rules
For Peel Region Board Level Contest

THE SETUP

General Contest Information
The contest will consist of four problems to be solved in 3 hours: from 2:30 am to 5:30 pm. All problems will be distributed at the start of the contest. Only one copy of the problem set will be given to each team.

Team Makeup
A team consists of no more than 4 members, each a full-time student of the same school. Team coaches are responsible for ensuring correct team makeup. Teams may compete with fewer than four members, but this may be a disadvantage to the team.

Team Workstation
Each team is responsible for bringing and setting up their equipment for their workstation, which consists of:
• one computer with a USB port
• one monitor
• sufficient number of extension cords
• a power bar
• you may use **non-programmable** hand-held calculators and personal language translators (e.g., French to English, Mandarin to English…)
• all other electronic devices are forbidden (e.g., phones, PSPs, …)

Languages
The contest can be written in any programming language.

Books and Resources
Teams are allowed to bring with them any printed or digital resource they like. Digital resources must be stored and accessed on the Team Workstation. Electronic communication is not allowed during the competition. This includes any kind of communication that involves an internet, cell phone or satellite link. Coaches are advised to collect cell phones and make sure all wireless services on the Team Workstation are disabled.

Come Early
Teams must arrive at the contest site early to set up their workstations prior to the beginning of the contest. Allow 30-45 minutes for finding the workstation site and setting it up.

Coaches' Participation
Coaches must advise their team about the rules and expectations concerning team conduct during the competition. Coaches must be responsible for team membership, transportation, supervision and workstation (equipment and supplies). Coaches will also be required to participate as judges.

THE PROCEDURE

Contest Procedures
All teams will be given one copy of the problem set (consisting of 4-5 problems) to solve during the 3 hour period and a score sheet. When a team feels that it has a correct solution, the team will

indicate to the judge that they are ready for scoring by holding up the colour-coded problem sheet. If a team has a question about one of the problems they will hold up the colour-coded problem sheet and say "question." A judge will come over and answer the question.
A judge will approach and mark the time on the score sheet and hand over a USB drive containing the test data. Team members will insert the drive into their machine and optionally copy the input file into their computer.

The team's program will read the test data. After the program has started, there is to be no further student/computer interaction unless specifically directed by the problem to do so. The resulting output will be compared with the judges' solution sheet and a score will be assessed by the judge based on the number of correct answers created from the program. If a perfect score is not obtained on the first attempt, the judges are permitted to show the team the correct solution. For more detail, take a look at some of the examples.

For this year's contest we have included a "Problem 0" which is meant as a base-line problem to ensure that everyone scores points. However to not take away from the core problems (1-4) there will be no time bonus assigned to this problem and it is worth only half as much as the others. Therefore there is no rush to complete this problem and we would encourage teams to assign it to newer programmers in your teams.

Executing the program
The following rules apply in general to all problems. Actual problem descriptions may give more specific directions which would override or add to the following.

Follow the problem description carefully. Judges are using it to judge your program.

All data are to be read from data files. The data files will be called DATA11.txt, DATA21.txt, DATA31.txt, and DATA41.txt for the first submission for the respective problem. The data files will be called DATA12.txt, DATA22.txt, DATA32.txt, and DATA42.txt for the second submission for the respective problem. Groups must be careful to have the correct data file name in their program. A failed run as a result of an incorrect file name is the only option the judge has.

No opportunity to change the file name for a FIRST submission will be given.

Teams are responsible for the creation of their own test data. This test data should satisfy your team that your algorithm (solution) can handle all stated and implied data situations.

Efficiency techniques may be a factor on some problems. Any successful program execution must be fully completed within 30 seconds of execution time. Any test cases not completed within those 30 seconds will receive a mark of zero.

Computer technology, being what it is, has a tendency to "crash" at the most inopportune time. Make sure you save and back up your programs while writing them in case of electrical or hardware problems. The team is responsible for any backing up or re-booting that may be required due to equipment failure.

Decisions of the judges are final. All concerns are to be resolved before the announcements of final standings at the end of the contest.

EXAMPLES
Contest Scoring
Each problem earns points in three areas.

Program Task Points: Each question is worth 100 points. Most questions have five outputs.

Perfect Run Points: If the first run is perfect, an additional 10 points is added to the score. These points are not granted on a second attempt.

Time Points: 1 **point** is added for every 5 minutes a problem is handed in early. Time Points are recorded ONLY if at least some Program Task Points are earned.

For the following examples, assume a contest began at 11:00 am.
Example #1
If a team submits a correct solution to a problem on their FIRST try at 12:17 pm.
For this problem the team earns:
100 for a PERFECT solution
10 for a PERFECT first run
+ 20 for Time Bonus Points
130 Total Points (100+10+20)

Example #2
If a team submits a solution with 4 of 5 output values being perfect at 12:23 pm.
80 for a partially correct run (4 out of 5)
0 There would be zero Perfect solution points
+19 for 97 minutes of remaining tim e
99 Total Points

Example #3
If the team had submitted using Example #2 above and would like to resubmit, the score would be calculated as follows. Assume that on the second set of test data (not the same as the first set of test data) they had only 3 of the 5 output values correct at a time of 1:00 pm.
For this problem the team's previous score for this problem is cancelled (including time points) and the team would earn:
60 for a partially correct run (3 out of 5)
0 A second run is not perfect
+12 for 60 minutes of remaining tim e
72 Total Points

Example #4
If the team had submitted according to Example #2 above and resubmitted with a perfect solution at 12:45 pm. For this problem the teams previous score for this problem is cancelled (including time points) and the team would earn:
100 for a perfect solution
0 A second run is not perfect
+15 for 75 minutes of remaining tim e
115 Total Points