

ENGINEERING BRUNSWICKAN STAFF

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MESSAGE FROM THE DEAN

While the Engineering Week program for 1964 is in many respects following the pattern of recent years, it includes two new features: for the first time, the Annual Meeting of the Association of Professional Engineers of New Brunswick is being held in Fredericton and concurrently with part of Engineering Week; and invitations have been extended to the High Schools of the Province to attend the "Open House" at the Engineering Building on Monday.



With the cooperation of our students I am sure that the Engineering Society, through its officers and committees will achieve all of these objectives.

This year, as a special bonus to ourselves, we have the opportunity to attend technical sessions on a wide range of subjects. Attendance at these sessions will be especially valuable to senior students and I urge them to participate in the discussions. Many other students will be free during these periods and they should hear as many technical papers as possible.

Let us all join together in the organization, work and enjoyment of these events and the creation of an excellent public image for the Faculty of Engineering at our University.

J. O. DINEEN,
 Dean of Engineering

A Word From The President

"Presidents are God's Gift to Mankind . . ."

James Hoffa
 ("I am the boss")

Part of an Engineering Society President's job includes summing up of the major past events and possibly a little forecasting of the future. It is with great pleasure that I recall the former. The year began with the enthusiasm and spirit for which Engineers are notorious and has in fact increased during the year.

The first major event of our term was the rather infamous smoker (after a four year ban) held in Silverwood and climaxing on campus. The party was a success in my eyes, despite the unfortunate ending and the resulting bad publicity. As a recent graduate noted in a letter from Sherbrooke, "it was the best collective show of spirit by the Engineers in some time". A very special thanks here to Bernie MacIsaac for an excellent organization job.

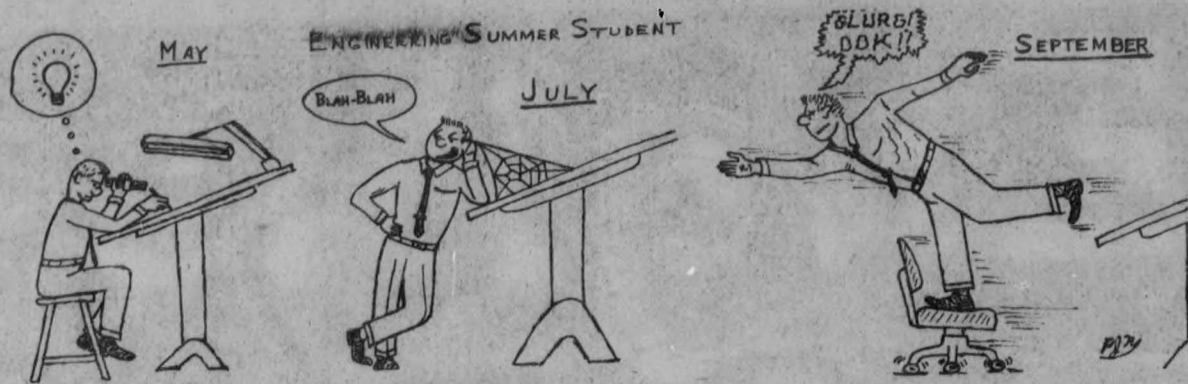
Our meetings still tend to be poorly attended, despite our attempt at short business meetings and excellent speakers from Montreal and the campus.

Engineering Week this year is the biggest and best ever held by your society, thanks to Tony Short's excellent program and Professor McLaughlin's invitation to co-operate with the Association of Professional Engineers of N. B.'s

Annual Meeting in Fredericton. Besides our regular program, we may attend the technical paper sessions in the Engineering Building, hear Mr. R. F. Shaw Thursday night in the L.B.R. and also Mr. Engineer of Canada, Mr. Gilles Sarault on Friday afternoon. The Engineers' Ball Friday night is a combined effort with the A.P.E.N.B.; Tom Robertson and his dance committee have planned U.N.B.'s social event of the year, highlighted by the crowning of our Queen, Miss Pat Pullen.

This year's Executive Council is to be congratulated for a job being well done. Projects initiated this year include engineering vocational guidance for the freshmen and sophomores, old examination paper booklet sale, a new Engineering Society Stores accounting system, constitution changes, building the Winter Carnival Ice Palace, construction of Lady Godiva by 4th Mechanicals, the Senior Engineers' Party, installation of class representatives, and especially the very necessary "Codivan" for communication, under editor Tony Short, to name a few. I throw to next year's executive the problems of meeting attendance, E.I.C. co-operation the possibility of

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EXAMINATION PAPER

Taken from Torque - The Engineering Faculty news letter, National Union of Union of Australian University students, June 1960.

The following is an examination being conducted by Torque to determine the general educational standard among engineering students throughout Australia and New Zealand. The importance of this test cannot be stressed too greatly, as the analysis of the results may ultimately lead to radical changes in engineering teaching methods throughout Australia.

All answer papers should be sent direct to the editor who will then hand them on to the specially appointed investigating sub-committee for correction and evaluation. "Torque" will publish complete exam. results in the next issue. All candidates are warned to have answers in promptly and therefore avoid the danger of failure and the inconvenience of posts later in the year.

Annual Degree Examination,

GENERAL KNOWLEDGE (ENGINEERING)

Time Allowed -
 Ten microseconds for perusal.
 Ten minutes for working.
 Water cooled slide-rules and/or digital computers may be used.
 Write on all four sides of the paper.

When evaluating this paper the examiner will take into consideration the use of Morse Code and the writing of insoluble differential equations. Any number of questions may be attempted.

1. A given human female has the following characteristics:-

Height 173.2 cms.
 Weight 53.9 kilogrammes
 Age 6.14 X 108 seconds
 Hair Colour blonde
 Vital Statistics 91-58-97
 (Centimetres, idiot)
 Woozle Rating 8.24

Using the above data, determine:-

- (a) the probability that thirty (30) engineering students will ask her to go to the Engineers' Ball.
- (b) her address (print answer clearly).
- (c) her phone number.
- (d) the accuracy of your determinations in (b) and (c) above.

2. Derive an expression for the quantity of beer consumed at a standard engineers' smoker in terms of the number of engineers present, time in seconds since last smoker, number of staff members present, name of the smoker convenor, and the prevailing dry bulb temperature and relative humidity.

For this question reference may be made to the following codes of practice:-

B.S. 24007.9-Alcohol Consumption Throughout the British Commonwealth.
 S.A.A. 0.0073-Drinking Vessels for Unlicensed Premises in Canada.

3. A final year electrical engineering student consistently produces a figure of Brigitte Bardot on a Cathode Ray Tube. His fellow students hail him as a genius, while

the Dean predicts failure unless such practices cease.

Comment on the above, suggesting in your answer a possible method of producing Diana Dors on the screen as well.

4. It is proposed to install a refrigerator in the fourth year drawing office of a university in tropical Australia. Assuming Australian standard alcohol consumption and the number of students to be seventy (70), design the refrigerating system (and hurry up about it too - it's hell up there in summer).

5. You are about to be shot out into space in the first manned space-ship to leave earth. You have been granted your last night on earth completely free. Write a short but descriptive essay on how you would try (note the significance of the word "try") to spend that last night.

(All answers will be treated as confidential and written requests for copies of answers to this question may not be entered into - unless a stamped addressed envelope is included, of course.)

6. A certain student may be described as his grandmother's sister's nephew's cousin's daughter's father-in-law's brother's uncle's step-sister. If the family baker is no relation at all to the student's uncle, what relationship exists between the baker's nineteen-year-old daughter and the student. (Full working must be shown)

7. A mining engineering student is doing vacation work at a pit where the vertical mine shaft is 1060 feet deep. Assuming that the student will be killed if the cage hoisting rope breaks when the cage is at the pit-top, would the student be half dead on hitting the pit-bottom if the rope breaks when the cage is half way down the shaft. (For "g", assume 32.19624.)

8. Comment on any five of the following:-

(I) Infants enjoy infancy as much as adults enjoy adulthood.

(II) Does engineering need more females or do more fe-

ENGINEERS OF

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He had hewn two great obelisks out of the vast quarries of Asswan, transported them in big cargo ships and erected these immense masses in front of the palace temple, all without a single accident - indeed quite an engineering feat!

"THE GREAT YU"

In the East too, engineers were not idle. The method of working of the Chinese hydraulic engineer, Yu (c. 2283 B.C.), is still used today. Then, as now, China always suffered from floods, and Yu was called by the emperor to master the waters. He did this in eight years, and people in those days obviously appreciated engineers for they called him "the Great Yu". After the old emperor's death, he received the greatest reward to any engineer - he became Emperor of China!

The Greeks, who have always been associated with Truth and Beauty, produced many fine engineers. Thales of Miletus (one of the Seven Wise Men) worked successfully at the technical problems of his time, particularly those of hydraulic engineering.

3,000-FT. TUNNEL

In the sixth century B.C. the engineer Eupalinos drove a tunnel over 3,000 feet long through the mountain of Kastro, for the purpose of bringing water from the springs into the town. The tunnel was driven simultaneously from two ends, and it did meet in the middle, which says a great deal for the engineering of those times.

ARCHIMEDES

Great work in the art of war was accomplished by the classical engineers. The Tyrant of Syracuse, Dionysius, was able to defend himself from the Carthaginians only by the aid of great technical achievements. His most famous engineer was Archimedes, whose powerful war machines hurled massive stone projectiles at the advancing Romans, putting the legions to flight. In fact, so destructive and terrifying were the amazing inventions of Archimedes that the Romans (it is said) were thrown into a state of panic at the mere sight of a bit of rope thrown over the wall! The leader of the Romans therefore determined to stop all attacks and reduce the enemy by hunger.

This proved to be Archimede's downfall, for after years of siege when the town eventually fell to the Romans, a soldier, disobeying his general's orders, struck down and killed the old man, who would not be disturbed in his calculations.

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 COLE
 HAVE CREW - WIL LEC
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