

Government of Madras.

EDUCATIONAL DEPARTMENT.

Recd.

Regd.

1908.

Enclosures

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G.O., No. 352, 9th May 1908.

College of Engineering, Madras.

Recording the report, submitted by the Director of Public Instruction, of the Board of Examiners on the final examinations of the — held in December 1907.

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GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following paper:—

Letter—from A. B. STRANGE, Esq., M.I.C.E., President, Board of Examiners, College of Engineering, Madras.
To—the Secretary to Government, Educational Department (through the Director of Public Instruction).
Dated—the 6th April 1908.
No.—52.

I have the honour to submit the report of the Board of Examiners, College of Engineering, Madras, on the final examinations held in December 1907.

ENCLOSURE.

Report of the Board of Examiners, College of Engineering, Madras, on the final examinations held in December 1907.

Advisory Members.—Two members of the College professorial staff,—Mr. W. H. James and M.R.Ry. B. Hunumanta Rau Avargal—were appointed Advisory Members of the Board, by the Director of Public Instruction. The Board had the benefit of their advice for the first time during the year under report and it was of great help to the Board. The help was greater in cases where, from motives of economy, the same question papers in certain subjects had to be made common to the higher and lower classes.

2. *Results*—(a) *Senior Engineer class.*—Twenty candidates presented themselves for the examination, 16 of whom were College students and 4 “Independent” candidates.

Students.—All of them passed—with, however, none in the first class.

“Independent” candidates.—Two of these failed—one in the Board’s total only, and the other in the Board’s as well as in the grand total.

(b) *Senior Engineer Subordinate class.*—Forty-one candidates—33 College students and eight “Independent” candidates—appeared for the examination.

Students.—Of these, 29 passed with one in the first class. Of the four that failed, two failed in the Board’s total only and two in the Board’s total and also in the grand total.

“Independent” candidates.—One of these was not successful. He failed in Mathematics as well as in the Board’s total.

(c) *Senior Sub-overseer and Surveyor class.*—Fifty-five candidates were examined, of whom 38 were College students including a “Casual” student, and the rest “Independent” candidates.

Students.—Of the 38 candidates, three failed: one in the Board’s total; and two in the Board’s and grand totals with one in Drawing as well. The “Casual” student was one among those that passed.

“Independent” candidates.—Ten passed. Seven failed; of these, three failed in the Board’s total only; three in the Board’s and grand totals; and one (who appeared under rules requiring no separate minimum under the Board’s and College totals) in the grand total.

(d) *Senior Draftsman class.*—There were 57 candidates, of whom as many as 26 were “Independent” candidates.

Students.—Only 18 out of 31 passed. Of those that failed, 4 failed in the Board’s total with one in Estimating as well; 8 in the Board’s and grand totals with 5 also in Estimating or Geometrical, etc., Drawing, and with one in both of these as well; and one in the Board’s, College and grand totals as well as in certain subjects.

“Independent” candidates.—Eighteen out of 26 failed, 6 in the Board’s total only, and 12 in the Board’s and grand totals with 5 also in one or more subjects.

From the comparative statement given below, it will be observed that the percentage of passes was much higher than in 1906 in each of the first three classes. Though the percentage of passes in the Draftsman class rose from 33.3 in 1906 to 45.6 in 1907, yet the results cannot be considered satisfactory and the Board would attribute this to the low standard of general educational qualifications possessed by candidates belonging to this class.

Class.	1906.			1907.		
	Number examined.	Number passed.	Percentage of “passed” to “examined”.	Number examined.	Number passed.	Percentage of “passed” to “examined”.
Engineer class	19	15	78.9	20	18	90.0
Engineer subordinate class	41	27	65.8	41	36	87.8
Sub-overseer and Surveyor class	48	28	58.3	55	45	81.8
Draftsman class	54	18	33.3	57	26	45.6

Only one student of the Engineer Subordinate class passed in the first class, while all the successful students of all the other classes, and all the “Independent” candidates that passed, passed in the Second class.

3. *General remarks.*—In G.O., No. 327, Educational, dated the 29th May 1907, the Director of Public Instruction has been requested “to see in special that greater attention is paid to the adequate teaching of Drawing.” The Board is glad to note that in the year under report, the drawing of all classes was better and the diagrams were cleverly worked out and on the whole neatly drawn. But any question involving the slightest element of design was badly answered by candidates: they cannot design—they can copy drawings well enough—but when invited to set down any simple thing of which their training should give them some knowledge, but which is not directly represented before them, they are bewildered, and seem to lose their sense of proportion. Moreover in the papers where drawing was required, they sometimes used the wrong scale especially is the Levelling papers, where the horizontal and vertical scales were not the same.

A noticeable defect in the answers was the poor quality of the sketches (though great stress is laid in the syllabus on the value of sketching details of machinery).

The ability to rapidly and neatly sketch apparatus, machinery or works, is of so much importance to persons connected with the Engineering profession that it is particularly important to notice this defect in the answer papers. It was evident from their answers that the students looked on their tour to irrigation works as a holiday and had not taken proper advantage of their opportunities of learning. The Board suggests that the numbers of the students on any particular tour should be kept as low as possible, and that for every batch of 20 students, there should be a member of the staff told off to see that the students take suitable sketches and notes on the spot.

Several questions were set to test the candidates’ knowledge of the limitations of certain well known formulæ and methods and generally speaking, they appeared ignorant of the restrictions to the methods used. It is at least as important to know the limitations of a formula as it is to know the formula at all, and this point apparently requires attention. They seemed disinclined to adopt graphic methods or to represent ideas graphically.

On the whole, the answers were well done, though many marks were lost by the candidates through their not properly grasping the question asked (most probably through their indifferent knowledge of English) before commencing to write the answer.

A. B. STRANGE, M.I.C.E., President,
H. T. KEELING, A.M.I.C.E., Member,
C. W. LLOYD-GOW, A.M.I.C.E., Member,

Board of Examiners,
College of Engineering,
Madras.

N. Ref. on Cur. No. 2619/08, dated 23rd April 1908.

Submitted to Government.

A. G. BOURNE,
Director of Public Instruction.

Order—No. 352, Educational, dated 9th May 1908.

Recorded.

2. The attention of the Director of Public Instruction will be drawn to the defects noticed by the Board of Examiners in paragraph 3 of their report.

(True Extract).

C. A. SOUTER,
Ag. Secretary to Government.

To the Director of Public Instruction.

EDUCATIONAL DEPARTMENT.

NOTES CONNECTED WITH G.O., No. 352, EDUCATIONAL,
DATED 9TH MAY 1908.

[SUBJECT.—*Report of the Board of Examiners, College of Engineering.*]

Previous papers.

G.O., No. 159, Edl., dated 20th March 1907.
" " 327 " " 29th May "

From the Director of Public Instruction, dated 23rd April 1908, No. 2619.

The results of the examination held in December 1907 appear to be more satisfactory than in the preceding year. The statement on page of the current file shows that the percentage of passes in all the classes was much higher than in 1906.

2. The Board of Examiners do not consider the results of the Draftsman class to be satisfactory although the percentage of passes rose from 33.3 to 45.6 and attribute it to the low standard of education of the candidates. But there will probably be no room for this complaint in future as none but Matriculates will be admitted to the Lower Subordinate class which corresponds to the old Sub-Overseer and Draftsman classes — *vide* Rule 37 of the Rules for the working of the College of Engineering on page 10 of G.O., No. 159, Educational, dated 20th March 1907.

3. The Board point out four defects:—

Paragraph 3 of the report.

Ibid.

Ibid.

Ibid.

(1) That the students were unable to design though they could copy drawings well enough.

(2) That the sketches were of poor quality.

(3) That the students appeared to be ignorant of the limitations of certain well-known formulæ.

(4) That the students seemed disinclined to adopt graphic methods.

4. The Director of Public Instruction's attention may be drawn to these defects.

5. A draft is submitted for approval.

T.K.—5-5-08.

K. RANGASWAMI AIYANGAR—5-5-08.

For information. There seems nothing special to note on.

C. A. SOUTER—6-5-08.

Approved.

M. H[AMMICK]—8-5-08.

Issue.

C. A. SOUTER—9-5-08.

[G.O., No. 352, Educational, dated 9th May 1908.]

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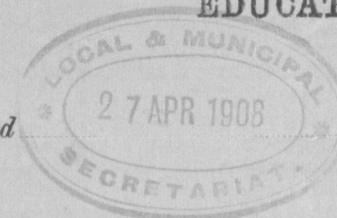
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EDUCATIONAL DEPARTMENT.

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190

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Subject.

Submitting for orders of Government a report of the Board of
Examiners on the Final Examinations of the College of Engineering
Madras held in December 1907.

ENCLOSURES.

No.

N. Ref on C No. 2619/08

Spare copies

Station Madras, Dated the 23rd April 1908

From (Name) The Hon'ble Mr. A.G. Bourne, D.Sc., F.R.S.,

(Designation) Director of Public Instruction,

Madras.

To The Secretary to the Government of Madras,
Educational Department.

Sd,

74/28/14

[E.]
1,000-2-5-08.

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READ AGAIN G.O., No. , dated 190 .

" " " " " " 190 .

READ ALSO:-

C. No. 997, From the D.P.I. , No. 2619, dated 23 - 4 - 1908.

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" " " " " " 190 .

ORDER.

P.S.

No. 352, dated 9. 5. 1908.

Recorded.

2. The attention of the D.P.I. will be drawn to the defects noticed by the Bd of Examiners in para. 3 of their report.

7/4.
5-5-08

CBs
5.5.8.

To

The D.P.I.

20/5/08