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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	3321	Press
	80-81	Min
Dated	3-11-	1865.

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,
3rd November 1865.*

No. 80. Read the following :—

Public Works Department, Simla, 29th September 1865, No. 1,580E.

Copy of the following, with copy of the Public Works Department Resolution referred to, forwarded to the Governments of Bengal, North Western Provinces, and Punjab, also to the Principal of the Thomason College, for information and guidance. Also to Governments of Madras and Bombay for information.

(Signed) A. B. SAMPSON,
Asst. Secy., for Secy. to the Govt. of India.

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No. 2,395, dated 21st September 1865.

Extract from the Proceedings of the Government of India, in the Financial Department.

Read Extract from the Proceedings of Government, in the Public Works Department, No. 1,481E, dated the 6th September, forwarding, for consideration and orders, a proposition for the award of a premium of Rupees 1,000, to such Officer students of the Roorkee College as may obtain 2,000 marks on passing an examination in the full College Course.

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RESOLUTION.—The Governor General in Council is pleased to sanction the proposition.

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ORDER.—Ordered, that a copy of the foregoing Resolution be sent to the Public Works Department.*

* Original papers returned.

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Nos. 1,481—94E, dated 6th September 1865.

RESOLUTION,—By the Government of India, Public Works Department.

Read again the following papers :—

Public Works Department Despatch to Secretary of State, No. 30, dated 14th April 1864.

Public Works Department Despatch from Secretary of State, No. 37, dated 30th July 1864.

Read also :—

Letter from Government, North Western Provinces, No. 2,985A, dated 15th December 1863.

Public Works Department, to Government, North Western Provinces, No. 431, dated 27th January 1864.

Letter from the Government, North Western Provinces, No. 2,985, dated 12th July 1864, with enclosures.

Public Works Department, to Principals, Civil Engineering Colleges, Roorkee and Calcutta, Nos. 936—7E, dated 16th September 1864.

Secretary of State's Military Despatch No. 251 of 8th August 1864, received with Military Department docket, No. 460, dated 23rd September 1864.

Letter from Principal, Civil Engineering College, Calcutta, No. 314, dated 1st October 1864.

Public Works Department, to Principal, Thomason College, No. 1,099E, dated 8th Oct. 1864.

Letter from Principal, Civil Engineering College, Roorkee, No. 474, dated 25th October 1864.

Letter from Principal, Civil Engineering College, Roorkee, No. 532, dated 4th November 1864, with enclosures.

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RESOLUTION.—The subject of the tests for admission into the Public Works Department of candidates for employment as Engineers, as Upper Subordinates, and as Lower Subordinates, has lately been under the consideration of the Government of India on various occasions, and has formed the subject of deliberation by a body of experienced Officers of the Department, assembled at Calcutta for the purpose. The Governor General in Council, therefore, desires to record, in the form of a Resolution, the conclusions finally arrived at by the Government of India on this important subject.

Engineer Establishment.

1. In a recent correspondence on the subject of recruiting the Engineer Establishment of the Public Works Department, it was observed by the Government of India (Despatch to Secretary of State, No. 30, dated 14th April 1864), that a difficulty existed in keeping up the Military portion of the establishments to that

proportion which it was desirable to maintain. The examination required in order to test the qualifications necessary for candidates before admission to the Department, was conceived to be a reason why so few Line or Staff Corps Officers came forward. In reply, the Secretary of State, in his Despatch No. 37 of 1864, dated 30th July 1864, suggested that some addition to the Military element might, perhaps, be obtained by lowering the scale of qualifications, so as to admit of more Military Officers entering the Department as Engineers.

2. At the same time the subject of the entrance tests of the Thomason College, Roorkee, was under the consideration of the Government of India, in connexion with the annual Reports of the College; and it also appeared to the Government of India to be desirable to enquire, with reference to the suggestion made by the Secretary of State, whether the nature of the mathematical standard of examination at the College was calculated to prove a hindrance to Military Officers desiring to enter the Public Works Department. Officers who seek to enter the College have arrived at an age when to prosecute the study of mathematics to any extent with success, must be quite exceptional; and it seemed desirable, therefore, to keep the standard as low as is consistent with the attainment at College of the qualifications really necessary for practical use by Engineers in the Public Works Department.

3. In the commencement of 1864, the Government of India, in this Department, sanctioned the addition of an extra session to the studies of the students of the Senior and First Departments of the Roorkee College. At the same time it was laid down that students, after qualifying for the higher or College standard, should be allowed to pass out without completing the above extra session or third full year. Three years is the minimum period of studying fixed by the Secretary of State for the young Civil Engineers appointed in England, and it appears expedient that the same time should be prescribed for the students of the First Department of the Thomason College.

4. But it would seem that students of the Senior Department (Military Officers) should not be called upon to extend their course of study beyond two sessions. Entering the College at a more advanced age, they bring with them a far wider experience than the students of the First Department. The Governor General in Council would consequently exclude them from the operation of paragraph 5 of this Department's letter No. 431, dated 27th January 1864, to the North Western Provinces.

5. In the early part of 1865, Lieutenant-Colonel Maclagan, a former Principal of the Roorkee College, being in Calcutta, was associated with the Secretary in this Department, and other Officers of experience, to consider the above and kindred subjects, and the general results of their discussions are as follows:—

1st.—That it is not expedient to lower the standard of entrance to the College, nor the standard of qualification for Assistant Engineer, is laid down in the Public Works Code, which includes only such a knowledge of mathematics as is undoubtedly essential to the proper performance of the duties of an Engineer, and, therefore, is not considered too high. It was further agreed that it is unquestionably necessary to maintain a moderately high standard of qualification for the Engineer Branch of the Department.

2nd.—But it was observed that the College course goes higher than the Code test. This, no doubt, is advantageous, but the part of the course extra to the test is optional, and is not insisted on for entering the Public Works Department. Instead of striking out this part of the College course, and so depriving Officer students of the advantage of this knowledge in cases where it could be acquired, it was suggested by the Committee that, to encourage Officer students, it would be well to hold out a premium to Officers passing a successful examination in the full College course. This might tend to encourage Officer students, and thus, without lowering the standard of the College education, increase the number of Military Officers seeking admission to the College, as desired by the Secretary of State. It

was, therefore, proposed that a premium of Rupees 1,000 should be awarded to Officers passing an examination such as would gain 2,000 marks according to the present College standard.

6. The Governor General in Council concurs in the above recommendations, and would refer, for favorable consideration in the Financial Department, the subject of the grant of the proposed reward to all Officer students passing an examination of the character contemplated.

Upper Subordinates.

7. In the Secretary of State's Military despatch, No. 251, dated 8th August 1864, the difficulty of obtaining Royal Engineer Soldiers for the Upper Subordinate Establishment of the Department, was commented on. The difficulty arose, it is believed, from the nature of the entrance examination required for admission to the Roorkee College. That examination had come to include theoretical geometry, whilst that prescribed in the Public Works Code, as a test for entering the Public Works Department, only called for some knowledge of practical geometry.

8. This matter was also referred for the consideration of the Departmental Officers above alluded to, and the Governor General in Council, concurring in their opinion, will now dispense entirely with theoretical geometry as a test of qualifications necessary before entering the College, but the requirement of a very moderate amount of practical geometry may still be maintained. A small amount of theoretical geometry may still form a part of the College course as being, in some cases, the best mode of teaching a student the necessary amount of practical knowledge; but it must not be insisted on as a part of the test of qualification for admission to the Public Works Department. The test in this respect should continue to be limited to the amount of practical geometry contemplated by the Code.

9. The Committee of Departmental Officers further proposed that the power of dispensing with the examination for promotion to the rank of Sub-Engineer (which examination requires superior qualifications in mathematics, &c.), should be granted to local Governments. This power has hitherto been exercised by the Government of India only, in cases of subordinates possessing special practical qualifications. The Governor General in Council agrees to this proposition; but observes that the number so promoted should not be allowed to exceed one-fourth of the total strength of the Sub-Engineers in a Province.

10. The Government of India would also grant to Local Governments the power of admitting men thoroughly trained in some practical branch of work, in the first instance, to any appropriate grade of the Upper Subordinate Establishment of the Department without requiring from them any test in theoretical knowledge. But a similar limitation with regard to numbers, as is above provided in the case of promotion on similar grounds within the Department, would also obtain in such cases of admission. And it is to be distinctly understood that all appointments so made should be held on probation for one year.

11. Under Circular No. 42 of 1863, the reports on the practical qualifications of candidates who desire to enter the Upper Subordinate Establishment of the Department, without being subjected to the prescribed theoretical test, are made by the College authorities. The Government of India considers it inexpedient to continue this system, and it will, in future, rest with the Local Governments to satisfy themselves by evidence of a satisfactory nature, that candidates do possess the special practical qualifications in question.

Lower Subordinates.

12. Regarding the Lower Subordinates of the Public Works Establishments, the Government of India would limit the qualifications to be required, whether at the College or for entering into the Department, to the practical matters laid down

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3rd November 1865.

in the Public Works Code. Some knowledge, of arithmetic and mensuration in a practical way is necessary; but no special proficiency, and nothing of algebra, should be required. Nor should geometry, trigonometry, or mechanics be demanded. All that is wanted is a knowledge of simple practical rules which should be acquired when the students are passing through the courses of drawing, surveying, and methods of construction.

13. The course of study for men of this class should not be theoretical, but such as will ensure a good knowledge of levelling and simple surveying, and of the methods of lining out simple road curves, and so forth.

ORDER.—Ordered, that a copy of this Resolution, and the papers now read, be forwarded to the Financial Department, with special reference to paragraphs 5 and 6.

Governments of Bengal, North-Western Provinces, and Punjab.
Chief Commissioners of Oudh, Central Provinces, and British Burmah.
Governor, Straits Settlements.
Resident at Hyderabad.
Commissioner of Mysore.
Agents, Governor General, Central India, and Rajpootana.

Ordered also, that a copy be forwarded to the Local Governments and Administrations named in the margin, for information and guidance; and also to the Governments of Madras and Bombay, for information.

Ordered also, that a Report be made to the Secretary of State, with reference to the despatches from Her Majesty's Government above quoted.

No. 81. ORDER THEREON, 3rd November 1865, No. 3,321.

ESTABLISHMENT, No. 7.

Ordered to be recorded.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Principal of the Civil Engineering College.

Exd. S. T. Augustin.

no 3321

Recorded

Just Sh George }
3rd Nov 1865 }

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Civil Eng^g College ✓
Educational Department, Dept^y No. 1865
H. G. P. Rego
Dec^r 4th November

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Roonke.

7071875 Dept
Pub. Works for November
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Establishment.

To

FROM

SECY. TO GOVT. OF INDIA,
IN THE PUBLIC WORKS DEPT.

No. 1580 E.

Dated SIMLA, 29th September, 1865.

Received *26*

Establishment

no. 3321 - 2nd Nov 1865.

won
Premium to Officers obtaining 2,000 marks in the
Examination in the full College Course at Roorkee.

7P. Recorded

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28th Oct 1865 - D. 10th Nov