

No. 1990 W of 27 Augt/85

Recorded.

/s/ J. S. S.

24-8-85

Govt. of (1885) Madras.

EDUCATIONAL.

Issued

Recd.

Encl.

G.O., 5th August 1885, No. 485.

No 1990 W of 27-8-85

AUGUST.

Civil Engineering College.

Forwarding to the Under Secretary of State for India, Proceedings of Government embodying the report on the working of the — in this presidency for 1884-85.

With order.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following paper :—

From D. DUNCAN, Esq., M.A., D.Sc., Acting Director of Public Instruction, to the Chief Secretary to Government, dated 27th July 1885, No. 5070.

I have the honor to submit three copies of the report on the working of the Civil Engineering College, Madras, for 1884-85, with my review thereon.

ENCLOSURES.

No. 4932.

Proceedings of the Director of Public Instruction, dated 18th July 1885,

Read the following letter from the Principal, Civil Engineering College, Madras, to the Director of Public Instruction, dated 1st June 1885, No. 301-C.

I have the honor to submit the following report on the working of the Civil Engineering College during the past year, and on the results of examinations for certificates which have been held during that period.

2. *Numbers.*—The average numbers on the rolls have been—

First department	...	...	...	...	...	...	...	...	19
Second do.	...	...	...	...	...	...	...	...	51
Special do.	...	...	...	...	...	...	...	...	55
Total									125

The numbers arranged by classes of the community are—

Europeans and Eurasians	...	...	...	...	...	...	...	29
Brahmans	...	...	...	...	...	...	...	49
Hindus other than Brahmans	...	...	...	...	...	...	...	33
Native Christians	...	...	...	...	...	...	...	11
Muhammadans	...	...	...	...	...	...	...	1
Others	...	...	...	...	...	...	...	2
Total								125

3. *First Department—Engineer Classes.*—In December 1884 the senior division contained ten students, all of whom were successful in gaining diplomas as assistant engineers.

S. A. Subrahmanya Aiyar, B.A., took the first place with honors, gaining the unprecedented proportion of 85.4 per cent. of the total marks.

The next four students—

K. R. Rangaswami Aiyangar,
S. A. Swaminatha Aiyar, B.A.,
V. R. Rangaswami Aiyar,
T. S. Sessa Aiyangar,

pass with credit with percentages ranging from 71.5 to 66.1.

The remaining members of the class—

J. E. A. D'Cruz,
A. C. C. McLeish,
M. Ramakrishna Aiyar,
P. V. Raghavachari,
P. G. Venkatasubba Aiyar,

passed with percentages ranging from 65.3 to 56.1.

One independent candidate, S. G. Krishnaswami Aiyar, who was formerly a student of the College, also appeared for the examination and was successful in obtaining a diploma.

4. I take this opportunity of acknowledging the kindness of the following gentlemen who were so good as to serve as examiners:—

Mathematics.

Arithmetic	...	...	...	Major Sidney Smith, R.E.
Algebra	...	...	...	Captain H. S. Andrews Speed, R.E.
Euclid	...	...	...	B. Hanumantha Rau, Esq., B.A.
Mensuration	...	...	...	Colonel H. L. Prendergast, R.E.
Trigonometry	...	...	...	S. Rangayya Chettiyar, Esq., B.A.
Statics and Dynamics	...	...	...	P. Ranganatha Mudaliyar, Esq., M.A.
Hydrostatics and Pneumatics	...	...	...	Major W. H. Coaker, R.E.

Engineering.

Building Materials and Construction	...	...	J. A. Jones, Esq., M. Inst. C.E.
Earthwork and Roads	...	...	Major C. Bowen, R.E.
Bridges and Irrigation Works	...	...	The late Captain R.E. Hamilton, R.E.
Hydraulics	...	...	Lieutenant-Colonel J. Pennycuik, R.E.
Practical Mechanics	...	...	Captain W. L. C. Baddeley, R.E.
Applied do.	...	...	F. B. Hanna, Esq., M.A., M.E., M. Inst. C.E.

Surveying.

Chain, Compass and Sextant Surveying	...	A. S. Russell, Esq.
Theodolite Surveying and Traversing	...	Lieutenant-Colonel A. F. Hamilton, R.E.
Levelling	...	H. J. Thompson, Esq.

Drawing.

Drawing from Specification	...	Lieutenant-Colonel J. L. L. Morant, R.E.
Estimating	...	Major A. C. Smith, R.E.

5. In January 1885, the ten members of the class appeared for the B. C. E. Degree examination of the University. The seven following were successful:—

S. A. Subrahmanya Aiyar, B.A.,	First class.
S. A. Swaminatha Aiyar, B.A.,	Second class.
K. R. Rangaswami Aiyangar,	Third class.
V. R. Rangaswami Aiyar,	
T. S. Sesha Aiyangar,	
J. E. A. D'Cruz,	
M. Ramakrishna Aiyar,	

This is the largest number of candidates that has ever secured the engineering degree in any one year; and it is the third occasion in the history of the College in which the degree has been taken in the first class, the previous occasions having been in 1876 and 1884, respectively.

6. The present senior division consists of eight students, and the junior of ten. They have just undergone a sessional examination at which satisfactory progress has been indicated. In the first division, R. A. Srinivasa Aiyangar stands first in all the four main subject heads, and carries off all the prizes, viz.:—

For Mathematics—an aneroid barometer.
For Engineering—a planimeter.
For Surveying and Drawing—an ellipsograph.

In the second division, R. Gopala Aiyar, B.A., stands first and obtains the prize for general proficiency, an Abney's level.

7. *Second Department—Subordinate Classes.*—The senior division of this department contains twenty-six students, all of whom have just undergone examination for certificates of qualification as supervisor and overseer.

8. I take this opportunity of expressing my acknowledgments to the following gentlemen, who kindly set papers for the examination:—

Mathematics.

Arithmetic	...	...	...	L. Garthwaite, Esq., B.A.
Algebra	...	...	...	S. Rangayya Chettiyar, Esq., B.A.
Euclid	...	...	...	P. Ranganatha Mudaliyar, Esq., M.A.
Mensuration	...	...	...	S. A. Subrahmanya Aiyar, Esq., B.A., B.C.E.
Trigonometry and Statistics	...	...	...	B. Hanumantha Rau, Esq., B.A.

Engineering.

Building Materials and Construction	...	J. A. Jones, Esq., M. Inst. C.E.
Earthwork and Roads	...	Lieutenant-Colonel H. M. Vibart, R.E.
Hydraulics	...	Lieutenant-Colonel J. Pennycuik, R.E.
Bridges and Irrigation Works	...	Major C. Bowen, R.E.
Strength of Materials	...	F. B. Hanna, Esq., M.A., M.E., M. Inst. C.E.

Surveying.

Chain Compass and Sextant Surveying	...	Major Sidney Smith, R.E.
Levelling	...	W. B. DeWinton, Esq.
Traversing with Theodolite	...	K. Krishnan Nayar, Esq., B.A., B.C.E.

Drawing.

Drawing from Specification	...	Lieutenant-Colonel J. L. L. Morant, R.E.
Estimating	...	Major A. C. Smith, R.E.

Language.

Tamil and Telugu	...	V. Krishnamachariar, Esq.
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9. The following are extracts from the reports of examiners:—

Arithmetic.—Mr. Grathwaite remarks:—"On the whole the answering is good, and reflects credit on teachers and taught."

Algebra.—Mr. Rangayya Chettiyar writes:—"The average is very good, being 62.5. The class, large as it is, has given me immense satisfaction."

Euclid.—Mr. Ranganatha Mudaliyar reports:—"My general impression regarding the results is favorable. No student has particularly distinguished himself, but the average of 52 per cent. is very satisfactory."

Mensuration.—Mr. Subrahmanya Aiyar states that "the results are very satisfactory." Private Goddard and T. Abboye Aiyah submitted excellent papers.

Trigonometry and Statics.—Mr. Hanumantha Rau reports that Private Goddard sent in good, and six other candidates fair, papers; but that the other results were indifferent.

Building Materials and Construction.—Mr. Jones considers that "the general results are satisfactory, the largest percentage being 88 and the lowest 31."

Earthwork and Roads.—Colonel Vibart writes:—"The papers, as a whole, can hardly be considered satisfactory."

Hydraulics.—Colonel Pennycuik observes:—"The answers on the whole are good, and rather above the average. Private Goddard has obtained full marks, and two others, Gunner Murphy and P. Ananda Rau, would have done so but for very trifling errors."

Bridges and Irrigation Works.—Major Bowen writes:—"The answering of the first three men, Gunner Murphy, C. A. Hicken and Private Goddard, I consider very good, and that of the eight following very fair, the nature of the paper considered. The others were not up to the mark, but the questions were somewhat difficult for the class, and required care and thought in answering."

Strength of Materials.—Mr. Hanna reports:—"The answering was above the average, as nine candidates gained from 60 to 85 per cent., and eleven others from 30 to 60 per cent. The answering of Private W. H. Goddard, who heads the list, shows a much clearer knowledge of this subject than is usually met with."

Chain, Compass and Sextant Surveying.—Major Sidney Smith states that "the paper was only indifferently answered, three candidates obtaining over 75 per cent., and eight others 50 per cent. and over." Private Ruck, K. V. Kuryan and Private Goddard are, however, commended for their answering.

Levelling.—Mr. DeWinton observes:—"The answers show generally a sufficient knowledge of the subject, an average of 70 per cent. being obtained, and some are very creditable." C. A. Hicken, Gunner Murphy and A. B. Power stand highest in this subject.

Traversing with Theodolite.—Mr. Krishnan Nayar reports :—"The answers given by the first seven on the list were very satisfactory, those by Private W. H. Goddard being in every respect the best. The average percentage for the class is 56."

Drawing from Specification.—Colonel Morant observes :—"The greater part of the drawings were very neatly done, and accurately drawn. Pains have evidently been taken in teaching the students."

Estimating.—Major A. C. Smith writes :—"The results on the whole are satisfactory ; those of the first fourteen highly so, while those of the next seven are fairly good." K. V. Kuryan, Private Goddard, C. Ramaswami Aiyar and Private Ruck occupy the highest places on the list.

Language.—Mr. Krishnamachariar considers that "the results are on the whole fair, but there has evidently been want of practice in writing from dictation."

10. On comparing the results of the examination with the average of the last five years, it will be found that there has been—

A fall of 2 per cent.	in Mathematics.
A rise of 1 " "	Engineering.
" " 2 " "	Surveying.
" " 4 " "	Drawing.
" " 5 " "	Language.
" " 1 " "	on the total.

11. All the twenty-six candidates have passed. Seven obtain certificates as supervisor, Public Works department, having gained not less than 35 per cent. of marks in each subject, and 60 per cent. of the total, and the remainder secure certificates as overseer, the qualification for which is 25 per cent. in each subject and 40 per cent. of the total.

Private W. H. Goddard, Somersetshire Light Infantry, is *facile princeps*, with 2,049 marks out of a possible 2,600. He obtains a certificate as supervisor, and gains all but one of the prizes offered for competition by the class—

- For distinguished proficiency—the Royal Engineer Officer's prize.
- For Mathematics—case of drawing instruments.
- For Engineering—a lever watch.
- For Surveying—a case of spring bows.
- For Drawing—a parallel rule.

Private J. Ruck, South Wales Borderers, and Gunner T. Murphy, Royal Artillery, occupy the second and third places with 1,792 and 1,777 marks, respectively. A Vedantachari and P. Ananda Rau are equal with 1,717 marks. All these men, together with V. Sundara Aiyar and K. Kuryan, obtain certificates as supervisor.

The remaining nineteen students secure certificates as overseer, one of them, W. Yethirajulu Mudaliyar, who occupies the thirteenth place on the list, gaining the prize for vernacular language, a box of colors. One student, J. E. Vas, who joined in January last after a year's study in the first department, is not classed with the remaining candidates owing to his not being required to qualify in language.

12. The junior division of the upper subordinate class contains twenty-four students who have just undergone a satisfactory sessional examination, all of them being promoted to the first class. Sergeant W. L. Emery, Royal Scots Fusiliers, stands easily first with 1,367 marks out of 1,650. To him is awarded the prize for general proficiency consisting of a pedometer.

Lance Corporal Reynolds, 12th Lancers, occupies the second place with 1,169 marks. The next seven students in order of merit are—

- A. Krishna Menon,
- M. V. Krishnaswami Aiyar,
- Lance Corporal J. W. Jones, Hampshire Regiment,
- M. C. M. Mascarenhas,
- Lance Corporal P. King, Hampshire Regiment,
- M. Gnanapragasam Pillai,
- F. S. Piedade Lobo,

and to the civilians among these are awarded civil scholarships each of Rs. 15 per mensem tenable during the ensuing year.

The next eight students on the list have done well, and the rest of the class fairly so.

13. *Draftsman's Class.*—The senior division of nine students has undergone examination for certificates as draftsman and estimator, all being successful. A. Periyaswami Pillai secures a second-class certificate and the rest third class. The prize for drawing, consisting of a case of proportional compasses, is awarded to A. Appana Aiyangar. Several of these men are excellent draftsmen, and would have obtained first-class certificates had more attention been paid to estimating for bridges and irrigation works as compared with estimating for buildings.

The junior division contains twenty-one students whose examination shows fair results. Scholarships of Rs. 8 per mensem are awarded to the following students :—

- M. Angamuthu Mudaliyar.
- E. A. Sivakrishnaswami Aiyar.
- S. W. Damodara Pillai.
- A. Thumbu Chetti.
- A. S. David.

The last mentioned must, however, relinquish his scholarship if he avails himself of permission which has been given him to join the second department next year.

14. *Surveyor's Class.*—The senior division consists of seven students who have all been successful in obtaining certificates of qualification as surveyor. Two, G. R. Clarkson and T. A. Gnanaprakasa Pillai, secure second-class certificates, and the rest third class. The prize for surveying, consisting of a set of Marquois scales and a letter weighing instrument, is awarded to G. R. Clarkson.

The junior division contains fifteen students who have passed a very fair sessional examination. Scholarships of Rs. 8 per mensem are awarded to the five following :—

- M. T. Ramanujayya.
- J. M. Berlie.
- Saiyid Roza Husain.
- J. A. Bowie.
- H. Lawrence.

15. *Independent Candidates.*—Candidates other than College students to the number of eighty-seven have also undergone examination for certificates, viz., sixty-nine as draftsman, and eighteen as surveyor. The majority of these are employed in the Public Works department and Local Fund Boards, and appear for the examination with the view of obtaining a higher class of certificate than they already possess.

16. *Admission to the Junior Departments.*—The number of registered applications for admission this year was 120 from matriculates and 102 from candidates for entrance examination. Of the latter, twenty-nine qualified for the second department and fifty-one for the special department. Owing to insufficient accommodation and teaching capacity, a comparatively small proportion of the candidates can be admitted. The vacancies in the second department have been filled by twenty-three matriculates and thirteen entrance examinees. These, with two military students from the vernacular class, make up a total of thirty-eight. Of the twenty-three matriculates, three have passed the first examination in arts, and eight are matriculates of the first class, so that good results may be anticipated from the entering batch. The vacancies in the surveyor's and draftsman's classes have been filled by eighteen matriculates and forty-eight entrance examinees. Several other matriculates submitted applications for the special department too late for compliance.

The numbers above referred to are far in excess of those usually prevailing ; and they indicate a rapidly increasing appreciation of the advantages to be derived from a technical training such as that given at this College. It is unfortunate that the College is unable to respond to the claims made on it to their full extent ; but with the present accommodation it is impossible to give efficient instruction to greater numbers than will be on the rolls in August next. The present mode of entrance to the second department, partly by selection and partly by examination, is unsatisfactory ; and admission will be regulated in future by an examination for which matriculates only will appear.

17. *Walker Scholarship.*—This scholarship, which falls vacant in August, was competed for by eleven natives of West Coast districts by examinations held at Calicut and Mangalore. My thanks are due to Colonel Ross Thompson, R.E., at the former station, and to Mr. Marjoribanks and the Rev. Mr. Hoch at the latter, for arranging for the vernacular tests in Malayalam and Canarese, respectively. The successful candidate, T. Jacob, will join the second department in August.

18. *Military Students.*—Four men are now passing out of the College, five are in the present second class, two are at Bangalore prepared to join the College after passing an examination in vernacular language, and one has passed the entrance examination and will proceed to the vernacular class early in June. The smallness of the last two figures is understood to be due to actual and possible departures for field service.

19. *Photographic Class.*—This class consists of twelve selected students from the second and special departments. Good progress has been made under Mr. Hyde's careful instruction, and some of the students' work is exhibited on the tables.

20. *Examining Agency.*—All sessional examinations as well as examinations for certificates as surveyor and as draftsman are conducted by the College staff ; but the Government has always considered it desirable that the majority of the tests for the more important diplomas qualifying for employment in the engineer and upper subordinate establishments of the Public Works department should be applied by examiners independent of the institution. To conduct these

examinations, officers of the corps of Royal Engineers, officers of the Public Works department and of the railways, as well as many native gentlemen, have generously responded to the Principal's invitation by coming forward and devoting their time and labor, unremunerated, to the laborious work of examining. I owe a debt of gratitude to those gentlemen which I cannot adequately express. There have of late been some signs of impatience at the frequent recurrence of examinations, and the Principal has found it necessary to implore rather than invite co-operation. Now that examination subjects have multiplied, and that College diplomas have a higher value than they ever before possessed, it does not seem right that the arrangements for final examinations should continue to depend on the feelings of personal friendship for the Principal which examiners are so good as to entertain, and I trust that the Government will be able to provide definitely in future for the conduct of these tests.

21. *Employment—First Department.*—The current year marks the commencement of an important era—an era in which the higher ranks of the Public Works department are for the first time systematically opened up to the local Engineering College. For many years Rurki has regularly provided the Imperial Government with a portion of the recruits annually required for the engineer establishment, and in Madras there have been five instances during the last twenty years in which appointments as assistant engineer have been conferred on passed men of the College first department. Now, however, a fixed allotment of appointments is made by Government to the different Indian Engineering Colleges, the proportion falling to Madras being at present one per annum. The first student to profit by this enlightened policy is Mr. S. A. Subrahmanya Aiyar, B.A., B.C.E., whose distinguished attainments were referred to in the early portion of this report. He was appointed assistant engineer, third grade, on 1st April last and posted to the Sangam Project division to acquire that practical experience without which no person, however fine a theorist, can become a useful engineer. I entertain no doubt that Mr. Subrahmanya Aiyar's excellent abilities, coupled as they are in his case with practical sense, will enable him to do credit to the position which devolves on him.

Of the remaining students who passed out in December, one has been appointed to the Revenue Survey, one to State Railway surveys, three to the upper subordinate establishment, Public Works department, and four to surveys in connection with relief works. Several of these may expect higher appointments than they at present hold, but they have, in my opinion, done wisely in seizing the first opportunities which presented themselves for the acquirement of knowledge of the practical details of work.

I have also to report with pleasure that during the year under review Mr. K. Krishnan Nayar, B.A., B.C.E., whose distinguished College achievements will be found recorded in my last annual report, was appointed an assistant engineer on the South Indian Railway on a very substantial salary. This appointment is exceptionally important, as the engineer establishments of the Guaranteed Railways in this presidency have hitherto been regarded as a closer preserve for Europeans than even the Public Works department. I feel sure that the work executed by Mr. Krishnan Nayar will never cause Mr. Logan to regret the appointment which he was instrumental in procuring.

Another passed student of the same batch, Mr. Anantha Raman Natesan, has, it is understood, been appointed an assistant engineer under the Government of Maisûr.

22. *Junior Departments.*—Of the nineteen students who passed out last year, four are known to be employed as overseers, four as delta or channel superintendents, and three as surveyors, while one has joined the Salt department. As the College continues to lend active aid to passed students in obtaining employment, it may safely be concluded that the remaining members of the class, regarding whom no information has been received, are provided for. Similar remarks apply to the draftsmen and surveyors of 1884.

As regards the prospects of the students now passing out, I surmise that the restrictions of civil expenditure due to military preparations will not permit of many appointments being made just at present to the upper subordinate branch of the Public Works department. The case is different with draftsmen for whom there is an urgent demand both in the Public Works department and elsewhere. The Public Works department is, however, by no means the only source of employment; and a reference to the Government Gazettes and to the columns of the daily press will show that there is a wide demand for engineers and upper subordinates as well as for surveyors and draftsmen. These notifications are posted in the College as they appear, and from them passed students are able to form a very fair idea of the demand which exists for their services. During the year recommendations have been made of two engineers, twelve surveyors and three draftsmen at the request of officers requiring their services. Many more draftsmen would have been recommended had they been available.

23. *Apparatus.*—Several good models have been added to the collection, some of which were ordered from England, while others were planned in the College and executed by native carpenters in Madras. One excellent model of the Nellore tank escape was constructed at the Madras Railway Terminal Workshops, and I take this opportunity of expressing my thanks to Mr. Robinson and Mr. Carter for very kindly undertaking and carrying out the work. Among

the new models, which are freely used for instructional purposes, may be mentioned—

A six-inch trussed partition.
Trussed beam for a traveller.
Fifty timber joints in hard wood.
Two sets iron roof connections.
Small tank escape.
Shell lime-kiln.
Water wheels, overshot and undershot.

Among the instruments received during the year, a transit theodolite, an integrator and a double Attwood's machine deserve mention.

24. *Library.*—During the year, 163 volumes have been added to the collection, which now consists of 2,086 volumes. The issues of books to masters and students were 2,085, equivalent to the total number in the library, the corresponding number last year having been 1,181.

25. *General.*—The conduct of the students, military and civil, has been very good and the attendance regular, the average present daily being 92.5 per cent. of the total numbers on the rolls.

The generally satisfactory results of the year's working have been due, not only to diligence on the part of the students, but to the care and patience devoted to their training by the different members of the instructional staff, whom I now thank for their assistance and co-operation. The year saw no changes in the staff until to-day when closes the official career of the Telugu Munshi, Mr. Lakshminarasayya Pantulu. Entering the service in 1851 and the College in 1859, Lakshminarasayya Pantulu attained the age of 55 in 1879. Extensions of service have, however, been from time to time sanctioned, which have enabled him to remain at his post until the end of the present session. I cannot permit him to leave without expressing appreciation of the valuable work which he has throughout a long series of years done at this College.

26. The institution closes to-morrow for the recess. I trust that both masters and students will enjoy the rest and leisure which they have well earned and will, with renewed vigour, return to work at the end of the vacation.

THE average numbers on the rolls show a fall of two in the first department, but a rise of five in the second and of thirty in the special department. The figures are—

	1884-85.	1883-84.
First department	51	46
Second do.	55	25
Special do.	125	92
Total ...	125	92

2. The numbers for the same two years, according to the classes of the community, are—

	1884-85.	1883-84.
Europeans and Eurasians	29	20
Brahmans	49	41
Hindus other than Brahmans	33	19
Native Christians	11	9
Muhammadans	1	1
Others	2	2
Total ...	125	92

The increase indicates a satisfactory state of things, but the Muhammadan element seems still to be much in the background.

3. The results of the examination of the senior division of the first department were an improvement even on those of the previous year. There were ten students, and all were successful in gaining diplomas as assistant engineers. S. A. Subrahmanya Aiyar B.A., took the first place with honors, and four more students passed with credit, while of the remaining number, none obtained less than 56.1 per cent. of marks. An independent candidate, formerly a student of the College, appeared for the examination and obtained a diploma. The same ten students appeared for the B.C.E. examination and seven passed almost, it is satisfactory to note, in the same order as that in which they stood at the engineer examination. That the first department is in a high state of efficiency is manifest from the fact that the B.C.E. degree has been taken by a larger number of students than at any time previous, and from the circumstance that for the third time since the institution of the degree one of them has been placed in the first class.

4. The department is again under obligation to the gentlemen who conducted the College examination.

5. The present senior division consists of eight students and the junior of ten, which shows that the first department has no difficulty in keeping up its numbers. The progress of the students is favorably reported on.

6. The senior division of the second department consisted of twenty-six students, and it is satisfactory to find that all have passed at the examination held in May — seven obtaining certificates as supervisors and the rest as overseers.

7. The department is under obligation to the gentlemen who conducted this examination. The extracts given from their reports are, on the whole, very favorable. With the exception of mathematics, in which there is a fall of 2 per cent., there is a rise in all the other subjects when compared with the average of the last five years, as well as a rise of 1 per cent. on the total.

8. The junior division, consisting of twenty-four students, had just gone through a satisfactory sessional examination and earned promotion.

9. The senior division of the draftsman's class consisted of nine students: one secured a certificate of the second class and the others third-class certificates. It is stated that several of the students are excellent draftsmen, and that they would have obtained first-class certificates had they paid more attention to estimating for bridges and irrigation works, as compared with estimating for buildings.

10. The junior division consisted of twenty-one students, whose examination showed fair results.

11. The senior division of the survey class consisted of seven students, two of whom secured second and the rest third-class certificates.

12. The junior division consisted of fifteen students who had passed a very fair sessional examination.

13. Sixty-nine independent candidates appeared for examination as draftsmen and eighteen as surveyors. The majority were employed in the Public Works department and under Local Fund Boards and desired to obtain a higher class of certificate than that possessed by them.

14. The applications for admission to the junior department have been more numerous than ever and generally they have proceeded from persons who have received a superior education. This is indicative of the growing popularity of the institution and also gives promise of even better results in future. It is matter for regret, therefore, that all the students qualified cannot be admitted. The recruiting of the second department hereafter by examination only, to which no one with lower qualifications than matriculation will be admitted, is approved.

15. The Walker scholarship was competed for by eleven natives of the West Coast districts, and secured by S. Jacob who joins the second department. The examinations were held at Calicut and Mangalore.

16. The smallness of the number (three) of military students who are to enter the institution is attributed to actual and possible departures for field service.

17. The photographic class appears to have made good progress.

18. The arguments for the appointment of a body of examiners for conducting the College examinations are very weighty and will receive attention.

19. The Principal justly observes that the current year marks an important era in the history of the institution, the higher ranks of the Public Works department having been systematically opened for the first time to its students in accordance with the orders of the Supreme Government guaranteeing one such appointment annually to the College. The Acting Director of Public Instruction congratulates Mr. S. A. Subrahmanya Aiyar, B.A., B.C.E., on his having won the distinction of entry into the superior service of the department, and trusts that his future career will fully justify the high opinion formed of him by Captain Love.

20. The Acting Director is also glad to note that the remaining students who passed out of the first department have secured fairly remunerative appointments.

21. Mr. Krishnan Nayar, B.A., B.C.E., the most distinguished student of the previous year, the Acting Director is glad to learn, has been appointed an assistant engineer on the South Indian Railway, while another student has been employed by the Government of Maisúr. While the popularity of the College is increasing, it is gratifying to record that students of merit find no difficulty in getting employment, and there is no doubt that the demand will continue to increase.

22. It is satisfactory that, as far as can be traced, the passed students of the other departments have also obtained remunerative employment.

23. The Principal anticipates some difficulty in regard to the employment in the Public Works department of the engineering students now leaving, owing to the restrictive orders with reference to civil expenditure, but he anticipates no such difficulty in regard to draughtsmen for whom there is an urgent demand everywhere.

24. The institution, partly through the kindness of Messrs. Robinson and Carter, had received an accession of good models. It had also received some valuable instruments.

25. The library had received a considerable addition, and the books had been very freely used by masters and students.

26. The conduct of the students, it is satisfactory to note, had been very good. The Principal has placed on record his appreciation of the assistance rendered him by the staff.

27. Altogether the Acting Director has read this record of the year's work with much pleasure.

(A true Copy and Extract.)

(Signed) D. DUNCAN,
Ag. Director of Public Instruction.

ORDER—dated 5th August 1885, No. 485, Educational.

Ordered that the report be forwarded to the India office.

(True Extract.)

E. F. WEBSTER,
Chief Secretary.

To the Director of Public Instruction.
„ Public Works department.

Exd. J. Wright.