

R-10
Educational (1905) Department.

1
ORDINARY PRINTED.

G.O., No. 527

DATED 3-8-05 (5)

INDEXED.

ORIGINAL

[Despatch Abstract.]

Mind Sanitary Engineering.

Approving the revised Syllabus in
+ directing its publication in the
East St. George Gazette.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

2

Government of Madras.

EDUCATIONAL DEPARTMENT.

Recd.

Regd.

} 1905.

Enclosures

Spare copies

ORIGINAL

G.O., No. 527, 3rd August 1905.

Minor Sanitary Engineering.

Approving the revised syllabus in —, and directing its publication in the Fort St. George Gazette.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following papers :—

I

G.O., No. 1537 L., dated 5th December 1904.

ABSTRACT.—Approving, with remark, the proposal, of the Sanitary Commissioner that the use of levelling instruments should in future form a subject of instruction and examination for Sanitary Inspectors in Minor Sanitary Engineering and requesting the Director of Public Instruction to revise the syllabus accordingly.

II

Letter—from the Director of Public Instruction, Madras.
To—the Secretary to Government, Local and Municipal Department.
Dated—18th July 1905.
No.—Dis. 4959.

With reference to paragraph 2 of G.O., No. 1537 L., dated 5th December last, I have the honour to submit, herewith, six copies of the revised syllabus in Minor Sanitary Engineering. I may add that the additions have been made at the suggestion of the Sanitary Engineer to Government.

ENCLOSURE.

GOVERNMENT OF MADRAS TECHNICAL EXAMINATIONS.

MINOR SANITARY ENGINEERING.

(Qualifying for the post of Sanitary Inspector.)

INTERMEDIATE EXAMINATION.

General.—The use of drawing instruments. The use of scales. The reading of plans and sections. The calculation of gradients. Chain surveying and the practical use of levelling instruments.

The measurement of areas and volumes including the calculation of small quantities of earth-work, brick-work, masonry, etc. Estimating for minor and temporary works.

Buildings.—The description of soils and strata best suited for the erection of buildings in respect to stability and healthiness of the dwellings erected thereon. The necessity for foundations, their proper depth, etc.

Knowledge of the various building materials, such as brick, stone, lime, surki, asphalte, paints, etc. Their quality and the possible influence of the atmosphere on them. Their suitability for use in various parts of a building. To distinguish between good and bad brick, timber, lime, cement, etc.

The methods of ventilation applicable to Indian conditions.

Main details of the construction of permanent and semi-permanent hospital wards as gained from a study of plans.

The area and cubic space required in ordinary and contagious wards.

The details of design of latrines as gathered from a study of plans—permanent and temporary.

Details of night-soil depots and a knowledge of method of trenching, covering, etc.

Water-supply.—The inspection of sources of supply and determination by inspection as to their suitability for dietetic purposes.

The proper construction of wells to prevent the inlet of surface polluted water.

The calculation of the capacity of a well and the average supply of water likely to be obtained from it.

Methods of filtering and purifying small quantities of water or of otherwise rendering it safe for domestic use.

The method of drawing samples of water for chemical examination from water taps, tanks, and streams.

Simple methods of calculating the discharge of small channels.

The various methods of raising water used in India and the construction of the ordinary lift and force pumps.

The use and construction of small cisterns and tanks for the storage of water.

The quantity of water necessary per diem per head for a town population, and for horses and other animals.

The method of driving tube wells, their use, and the position in which suitable.

Drainage.—The materials used in drainage works.

The use of drainage pipes, glazed and unglazed, brick drains, syphon traps, cesspools, septic tank, etc.

The various methods of house and street drainage.

Knowledge of methods for the rough determination of the discharging capacity of an open drain, channel, closed pipe and sewer.

The proper gradients for drains of varying sizes.

The various methods of pipe-jointing in closed drainage and sub-soil drainage.

The variation in sub-soil water-level and its effect on health.

The methods of excluding sub-soil water from areas and spaces below ground level.

The methods of flushing and cleaning drains, and of drain testing.

Disposal of sewage, etc.—Methods of sewage purification. The action of the septic tanks, bacterial and other filters, and of land, etc.

The relation of the septic tank to the old cesspool.

Simple plant for domestic sewage disposal.

The formation of small collecting tanks and areas for sewage filtration.

The proper crops to grow under sewage irrigation.

The sub-soil drainage of sewage farms when necessary and when not.

The maximum area which can be irrigated by any quantity of sewage.

The maximum amount of sewage which can be put in an area to ensure a maximum return in relation to temperature and climate.

No candidate will be admitted to the examination unless he produces a certificate signed by the Sanitary Engineer or the Assistant Sanitary Engineer that he has undergone a five months' course in Minor Sanitary Engineering.

The examination shall comprise—

- (1) A written examination.
- (2) A *visà voce* examination.

The distribution of marks and the minima required for passing shall be as follows :—

	Maximum.	Minima for passing.	
		1st class.	2nd class.
Written examination (three hours)	70	..	..
<i>Visà voce</i> examination	30	..	..
Total ..	100	65	45

NOTE.—The following works are recommended as text-books to the extent specified below :—

- (1) "A Manual of Hygiene, Sanitation, and Sanitary Engineering," by J. A. Jones (Government Press, Madras—1896):
Chapter II.—Part I.—Conservancy and Sanitation of Towns and Villages.
Part II.—Sanitation in regard to Special Buildings, Localities and Trades.
Chapter VI.—Buildings.
Chapter VIII.—Drainage.
- (2) "Rural Water-supply" by Allan Greenwell and W. T. Curry Crosby Lockwood & Son, London, 1896—
With the exception of Chapters III, IV, XVII, XVIII, XIX, XX, XXI, XXII and XXVI.

No. 527, EDUCATIONAL, 3RD AUGUST 1905.

Order—Mis. No. 801 L., dated 31st July 1905.

Recorded.

(True Extract.)

H. D. TAYLOR,
Ag. Secretary to Government.

Copy to the Educational Department.
" Sanitary Commissioner.
" Sanitary Engineer.

Order—No. 527, Educational, dated 3rd August 1905.

The revised syllabus in Minor Sanitary Engineering submitted by the Director of Public Instruction with his letter No. 4959 of the 18th July 1905 is approved and will be published in the *Fort St. George Gazette*.

(True Extract.)

H. D. TAYLOR,
Ag. Secretary to Government.

To the Director of Public Instruction.
" Commissioner for Government Examinations.
Gazette.

Educational (1905) Department.

CURRENT No. 1385

FROM

THE LOCAL AND MUNICIPAL DEPARTMENT.

Lodged.

220
1/85

No. 801 L. Mis

Dated 31. 7. 1905

Enclosures

Received 1-8-1905

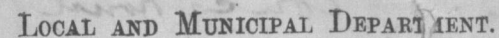
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SUBJECT.

Recording letter from the Director of Public Instruction submitting copies of the revised syllabus in Minor Sanitary Engineering.

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[E.]
[12.]

1.000-14-6-05

EDUCATIONAL DEPARTMENT.

READ AGAIN G.O., No. 1837, dated 5-12 1904

190

READ ALSO:—

C. No. 1385, From the Lt-M. Dept., No. 8012, dated 31-7-1905

" " " " " " 190

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ORDER

No. 527, dated 3-8-1905

The revised Syllabus in Minor Sanitary Engineering Submitted by the S.P.S. with his letter no. 4959 of the 18th July 1905 is approved and will be published in the Fort St. George Gazette.

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