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Educational (1898) Department.

ORDINARY MS.

G.O., No. 251

Dated 18-4-88

INDEXED.

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[Despatch Abstract.]

Approving the
syllabus in metal work, submitted
by the D.I., for the industrial
standards, A.B.C.D.

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BACK PAPERS.

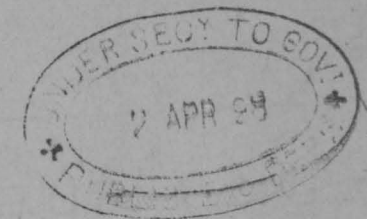
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Educational (1898) Department.

CURRENT No. 471



From the Secy of Pub. Instr. Madras

No. 3962

Dated 1st April 1898.

Received
Registered } 2nd April 1898
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SUBJECT.

Subj for approval
courses of instruction and
syllabus in metal work
for industrial standards
A.B.C.D.



To the D.P. 940
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BACK PAPERS.

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OFFICE OF THE DIRECTOR OF

PUBLIC INSTRUCTION,

Madras, 1st April 1898.

CURRENT NO 471

No. 3962

From

THE HONORABLE MR. D. DUNCAN, M.A., D.SC., LL.D.,

DIRECTOR OF PUBLIC INSTRUCTION,

Madras,

To

THE SECRETARY TO GOVERNMENT,

~~Educational~~ DEPARTMENT,

Fort St. George.

SIR,

I have the honour to submit for the approval of

Government the following:-

- (1) Courses of instruction in Metal Work for the industrial standards A,B,C,D. These will come in between Fitter's work and Pattern work in Chapter V (III), on page 55 of the Madras Educational Rules.
- (2) Syllabus in Metal Work under the Technical Examination Scheme.

Metal work will come in on page 74 of the Calendar of the Commission for Government Examinations, under "Wood-work and Metal work" after "Carriage Building".

2. On receipt of the approval of Government I shall notify the several additions in the Fort Saint George Gazette.

I have the honour to be,

Sir,

Your most obedient servant,

D. Duncan

Director of Public Instruction.

When given for copying 1814
When copied 1814
When examined 1814 1898.
When signed 1814

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ENCLOSURES TO G. No.

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LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

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N.B.—

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MADRAS EDUCATIONAL RULES.

CHAPTER V.—COURSES OF INSTRUCTION AND STANDARDS OF EXAMINATION.

(III) COURSES OF INSTRUCTION AND STANDARDS OF EXAMINATION IN INDUSTRIAL AND ART SCHOOLS AND CLASSES.

Subjects.	Standard A.	Standard B.	Standard C.	Standard D.
Metal work.	<p>[a] To cut out a piece of sheet copper or aluminium to a given pattern and to enlarge the same to a given size by hammering.</p> <p>[b] To make a cup of hammered copper or aluminium not more than three inches in diameter.</p>	<p>[a] To make one or more of the following:— Pela. Panchapatram. Tumbler. A small circular box with lid or two small vessels of similar shape and size.</p> <p><i>N.B.</i>—One of the above should be of brass.</p> <p>[b] To join two pieces of copper by brazing.</p> <p>[c] (1) To take moulds of and cast small articles of simple form. (2) To make a clay model of any simple thing for casting.</p>	<p>[a] To make any of the following:— (1) Circular tray (not more than six inches in diameter). (2) Lotas of all kinds with or without stands.</p> <p>[b] (1) To turn or file clay models and finish cores ready for waxing. (2) To make moulds of and cast circular cups, handles, &c.</p> <p>[c] To polish the articles made.</p>	<p>[a] To make any of the following from dimensioned sketches:— Chembu. Sandal cup. A tray of any shape. Salt cellar.</p> <p>A number of vessels not less than four, of sizes to fit into one another exactly.</p> <p>[b] (1) To wax clay models previously prepared and make them ready for casting. (2) To make moulds of, and cast ferrules, spoons, &c.</p> <p>[c] To show a knowledge of the methods of mixing and preparing the various kinds of mud and clay required for casting.</p>

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[April 1898.]

Government of Madras Technical Examinations.

METAL WORK.

ELEMENTARY EXAMINATION.

Description.—A knowledge of the tools used in metal work, and of the methods of casting vessels, and of turning and polishing the same, and of the component parts of brass and bell-metal. Ability to make the common alloys of copper, such as brass, bell-metal, gun-metal and aluminium bronze.

The examination shall comprise—

- (1) An oral examination.
- (2) A practical examination in one or more of the following:—
 - (a) To make of hammered work from dimensioned sketches—
 - (i) Chembus of all sorts with very simple ornamental work.
 - (ii) Water vessels of moderately large size, such as kopparai, &c.
 - (iii) Tea-pots, milk jugs, sugar-basins, &c., of any common shape and to fit them with cast handles and legs.
 - (b) To mould and cast legs, handles, &c., and to bind and braze them to a vessel.
 - (c) To braze and close a seam.
 - (d) To cast in bell-metal or aluminium panchapatram and other simple vessels.

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

	Max.	Min. for passing.	
		1st class.	2nd class.
Oral examination ...	20	...	...
Practical Examination ...	80	...	...
Total ...	100	65	45

Note.—Candidates must submit, at the time of application for examination, finished specimens of metal work.

INTERMEDIATE EXAMINATION.

Description.—A knowledge of the method of filling in flaws in cast vessels, of the materials used for polishing vessels, and of the way in which all metal workers' tools are made. Ability to make country crucibles and to construct fire places for melting metal.

The examination shall comprise—

- (1) An oral examination.
- (2) A practical examination in one or more of the following:—
 - (a) To make vessels of any size or shape from dimensioned sketches.
 - (b) To cast in bell-metal or aluminium the common domestic utensils which are ordinarily made of these metals, such as nests of tumblers, goglets and lamps of various forms.

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

	Max.	Min. for passing.	
		1st class.	2nd class.
Oral examination ...	25	...	...
Practical examination ...	75	...	...
Total ...	100	65	45

Note.—Candidates must submit, at the time of application for examination, one finished specimen of hammered work and one of cast work in either aluminium or bell-metal.

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METAL WORK.

ADVANCED EXAMINATION.

Description.—A knowledge of the various kinds of metal work done in India, the different methods of working and the tools used, also a knowledge of the machinery and mechanical processes employed in spinning and stamping metal work. The preparation and physical properties of alloys suitable for metal work. Ability to make working drawing ordinarily required in the metal workers' trade.

The examination shall comprise—

- (1) An oral examination.
- (2) A practical examination in one or more of the following :—
 - (a) To cast ornamental articles.
 - (b) To make ornamental lamps, chandeliers, elliptical dish-covers, &c., of either hammered or cast work or both combined.

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

	Max.	Min. for passing.	
		1st class.	2nd class.
Oral examination ...	25	15	10
Practical examination ...	75	50	35
Total ...	100	65	45

Note.—Candidates must submit, at the time of application for examination, specimens of their work comprising cast and ornamental hammered work.

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