

LAWS OF FIJI

CHAPTER 93

FIJI NATIONAL TRAINING

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FIJI NATIONAL TRAINING

Acts Nos. 10 of 1973, 4 of 1976, 25 of 1976, 8 of 1978, 11 of 1983, 19 of 1984

AN ACT TO ESTABLISH THE FIJI NATIONAL TRAINING COUNCIL, TO PROVIDE FOR TRAINING OF PERSONS, AND TO PROVIDE FOR THE IMPOSITION OF LEVIES CONNECTED THEREWITH

[1st June 1973]

PART I-PRELIMINARY

Short title

1. This Act may be cited as the Fiji National Training Act.

Interpretation

2. In this Act, unless the context otherwise requires-

"Appeals Tribunal" means the National Training Appeals Tribunal established by this Act;
"apprentice" means a person, including a person under training, who is bound by a contract to serve an employer for such period as the Council shall determine under the provisions of Part IX, with a view to acquiring knowledge, including theory and practice in an employment in which the employer is reciprocally bound to instruct that person;
"authorised officer" means a person appointed by the Council to be an authorised officer of the Council for the purposes of this Act;

"contract of service" means any contract, whether oral or in writing, whether express or implied, to employ or to serve an employer as an employee;

"Council" means the Fiji National Training Council established by this Act;

"designated trade or occupation" means a trade or occupation designated by order of the Minister under the provisions of section 21;

"Director" means the person appointed to be the Director of the Council under section 17;

"employ" in relation to the person employing, means to use as employer the services of any person under a contract of service;

"employee" means any person employed on a contract of service for remuneration, and includes an apprentice;

"employer" means any person, including the Crown, who has entered into a contract of service to employ any other person;

"employment" means the performance by an employee of a contract of service;

"levy order" means an order made by the Minister under section 19;

"training" shall include the systematic development of a person's attitude, knowledge, skill, and experience to assist him in connection with employment;

"training order" means any training order made under the provisions of this Act.

PART II-COUNCIL

Establishment of Council

3.-(1) There is hereby established a council to be known as the Fiji National Training Council, which shall be a body corporate and by that name shall have perpetual succession and a common seal. The Council may sue and be sued in respect of matters, whether relating to contract, tort or otherwise, arising in connection with the exercise of its powers or the carrying on of its functions under the provisions of this Act.

(2) Service of any document on the Director shall be deemed to be service on the Council.

Constitution of Council

4.-(1) The Council shall consist of the following members:-

- (a) the Chairman, who shall be the Permanent Secretary responsible for labour matters;
- (b) two Vice-Chairmen, one to represent employers and one to represent employees;
- (c) a number of members, not exceeding eight, appointed after such consultation as the Minister shall consider desirable, who have, in the opinion of the Minister, appropriate experience; of whom one-half shall represent employers and one-half shall represent employees;
- (d) a number of members not exceeding three, representing such ministries as the Minister shall consider appropriate,

all of whom, except the Chairman, shall be appointed by the Minister, and shall hold office for a term not exceeding three years.

(2) In the absence of the Chairman from any meeting, the members present shall appoint a Vice-Chairman, or in the absence of a Vice-Chairman, any member, to be the Chairman for that meeting.

(3) The decisions of the Council shall be by majority vote and, in addition to a deliberative vote, in any case in which the voting is equal, the Chairman at such meeting shall have a casting vote.

(4) The quorum for any meeting of the Council shall be one-half of the number of members of the Council when that number is even or a majority of such number if odd.

(5) All orders or directions made or given by the Council shall be given under the hand of the Chairman or Director.

(6) The Council shall, in the exercise of its functions and in the performance of its duties under this Act, act in accordance with any general or special directions as to the policy to be followed given to it from time to time by the Minister.

(7) Subject to the provisions of this Act, the Council may make rules governing its procedure. *(Substituted by Act 8 of 1978 s. 2.)*

Boards and committees

5.-(1) The Council may appoint such boards or committees from time to time and on such terms as it may consider desirable to hold office for a term not exceeding three years to advise the Council on any matter or matters arising out of the proper discharge of its functions.

(2) Any such board or committee shall, in addition to any member of the Council appointed thereto, consist of such persons who in the opinion of the Council can make any contribution to the work of such board or committee:

Provided that such board or committee may invite such other persons as it considers desirable to attend its meetings and give advice, but such persons shall not be entitled to vote at meetings of such boards or committees.

(3) In the discharge of its functions, the Council shall give due consideration to the advice or recommendations of any such board or committee.

Conflict of interest

6. All members of the Council, and of any board or committee appointed by the Council, shall fully declare to the Council any financial or other interest with which they may at any time directly or indirectly be connected and shall, unless the Council so decides, refrain from voting at meetings of the Council or of such board or committee on any matter related thereto:

Provided that such interest, if so declared, shall not disqualify such member for the purpose of constituting a quorum.

Disclosure of information

7. Any member of the Council or of a board or committee appointed by it, an authorised officer, the Director, or any servant or agent of the Council, who, except for the purpose of

the performance of his duties or the exercise of his powers under this Act, when lawfully required to do so by any Court or under the provisions of this Act or of any other law or for the purposes of a report of any such proceedings, discloses any material information acquired in the performance of his duties, or in the exercise of his powers, under this Act, or any information obtained on an inspection made as a result thereof shall be guilty of an offence:

Provided that the provisions of this section shall not apply to the disclosure of returns or information in the form of a summary of similar returns or information furnished by or obtained from a number of employers, if the summary is so framed as not to enable details relating to the business of any individual employer to be ascertained from it.

Allowances and expenses

8. The members of the Council and of any boards or committees appointed by it under the provisions of section 5 shall be paid by the Council such allowances and expenses as the Minister may, from time to time, direct.

Functions of Council

9. The functions of the Council shall be, in the national interest, and on such terms and conditions as it shall from time to time deem necessary-

- (a) to provide, arrange for or regulate the appropriate training, of persons or classes of persons, whether by way of apprenticeship or otherwise, to assist such persons or classes of persons in connection with employment;
- (b) to co-operate in, approve, or advise on any such arrangement made by any other person, including the Crown;
- (c) after consultation with such persons as it may consider desirable, to arrange for employment of such persons or classes of persons who are under training or who have completed appropriate training;
- (d) to enter into any contract necessary to carry out its functions under this Act;
- (e) to acquire, enjoy or otherwise dispose of or deal with any real and personal property for any purpose necessary to carry out its functions under this Act;
- (f) to advise on, and to disseminate information about training;
- (g) on request, with the approval of the Minister, to provide training in respect of persons outside the scope of a levy order on terms to be fixed by the Council;
- (h) to provide a consultancy service to employers and other persons;
- (i) to investigate and make recommendations, to such persons as it shall consider appropriate, relating to any matters connected with this Act;
- (j) to make grants or loans to persons providing such courses or other training facilities the Council may approve;
- (k) to assist and contribute towards the cost of training, and the promotion of training, of any person or class of persons;
- (l) make provision for the registration of such training courses or facilities of such category as it shall direct, and for the approval of such courses or facilities;
- (m) to issue or cause to be issued to an apprentice on the satisfactory completion of his contract of apprenticeship, or to any person other than an apprentice on the satisfactory completion of any course of training, a certificate in such form and manner as it shall decide;

(n) to make loans to servants of the Council for such purposes (other than housing) as it may approve;

(Inserted by Act 25 of 1976, s. 2.)

(o) to guarantee loans for housing purposes to servants of the Council;

(Inserted by Act 25 of 1976, s. 2.)

(p) generally do all such acts and things as are necessary or incidental to the discharge of its functions under this Act.

PART III-FINANCE

Bank Account

10. All moneys belonging to the Council shall be paid into such bank or banks as the Council may from time to time appoint.

Borrowing powers

11. The Council may from time to time raise such moneys, for such purposes and on such terms and conditions, as shall be approved by the Minister in consultation with the Minister responsible for finance.

Advances from Consolidated Fund

12. The Minister responsible for finance may, subject to the provisions of the Finance Act, authorise payment from the Consolidated Fund of grants or loans of money to the Council for the purpose of enabling the Council to carry out its duties and responsibilities arising under the provisions of this Act of such amount and upon such conditions as the Minister responsible for finance may determine.

(Cap. 69.)

Powers of investment

13. The Council may invest any of its moneys in any security or securities authorized under the provisions of any Act relating to trustees for the time being in force.

PART IV-ACCOUNTS AND AUDIT

Accounts

14. The Council shall keep proper accounts and other records in respect of its operations and shall cause to be prepared a statement of accounts in respect of each financial year.

Audit

15. The accounts of the Council shall be audited annually by the Auditor-General, or by such other person and on such terms and conditions as he shall appoint.

Accounts and reports to be laid before Parliament

16.-(1) As soon as practicable after the end of each financial year, the Council shall transmit to the Minister-

- (a) a copy of the statement of accounts;
 - (b) a copy of the report made thereon by the Auditor-General or the other person appointed under the provisions of section 15;
 - (c) a report which contains details of the activities of the Council during that financial year.
- (Amended by Act 4 of 1976, s. 15.)*

(2) The Minister shall cause copies of the accounts and reports to be printed and laid before Parliament.

PART V-ADMINISTRATION

Director

17.-(1) The Council shall, with the approval of the Minister, appoint a person to be Director of the Council.

(Substituted by Act 19 of 1984, s. 2.)

(1A) The Council shall pay the Director such salary as is determined from time to time by the Higher Salaries Commission.

(Inserted by Act 11 of 1983, s. 27 and Sched. 2.)

(2) The Council may, with the approval of the Minister, delegate to the Director such of its functions as it may from time to time deem desirable.

(3) The Director shall fully declare to the Council any financial or other interest with which he may at any time directly or indirectly be connected.

(4) The Director shall not be entitled to vote at meetings of the Council, or of any board or committee to which he may be appointed.

Servants and agents

18. Subject to the provisions of the Higher Salaries Commission Act, the Council shall from time to time appoint, on such terms and conditions as it shall determine, such other persons to be servants or agents of the Council as it may deem necessary.

(Amended by Act 11 of 1983, s. 27 and Sched. 2.) (Cap. 2A.)

PART VI-LEVY ORDER

Levy order

19.-(1) The Minister may, from time to time, after consultation with the Council make, in such form and containing such details (including provision for the payment of interest) as he may determine, a levy order imposing a levy on any employer or class of employer, and the amount payable under any such levy order shall be paid to the Council at the time and in the manner specified in such levy order:

Provided that a levy order may make different provisions in relation to different classes of employers.

(2) The Minister may from time to time, after consultation with the Council, revoke or amend a levy order.

(3) The Council may appoint authorized officers to collect the amount payable under a levy order.

(Amended by Act 25 of 1976, s. 3.)

(4) The amount payable under a levy order shall be deemed to be a simple contract debt due from the employer and shall be recoverable accordingly by the Council in any court of competent jurisdiction.

(Amended by Act 25 of 1976, s. 3.)

(5) Proceedings under subsection (4) may be instituted by the Director or by any servant or agent of the Council authorised by him in writing for that purpose, and the director or any such servant or agent may conduct proceedings whether or not he was the person instituting them.

(6) Any employer who fails to pay to the Council the amount payable under a levy order at the time and in the manner specified therein shall be guilty of an offence.

(Inserted by Act 25 of 1976, s. 3.)

PART VII-INFORMATION

Power to obtain information from employers

20.-(1) The Council may require an employer or class of employers to furnish such returns, provide such information and keep such records, as shall be approved by it, and, if required, to produce them for inspection to enable the Council to carry out its functions under this Act.

(2) Any employer who refuses or fails to comply without reasonable cause with any requirement of the Council made under subsection (1) shall be guilty of an offence.

(3) Any employer who-

(a) knowingly or recklessly furnishes, in pursuance of any requirement made under subsection (1), any return, information or record which is false in a material particular; or
(b) wilfully makes a false entry in any record required to be produced and kept under the provisions of this Act or, with intent to deceive, makes use of any such entry which he knows to be false,

shall be guilty of an offence.

(4) Where an offence has been committed under the provisions of subsection (3) by an employer (other than the Crown), being a body corporate, every officer, which expression means any director, manager, secretary or other servant or any person purporting to act in such capacity, of the employer who knowingly and wilfully authorised or permitted the contravention mentioned in this section shall, in addition to the employer, be guilty of an

offence and on conviction liable to the same fine and imprisonment.

(5) Where an offence has been committed under the provisions of subsection (3) by an employer, being the Crown, every public officer who furnishes the returns, provides the information or keeps the records required by subsection (1), or any person or persons purporting to do so, who knowingly and wilfully authorised or permitted the contravention mentioned in this section shall be guilty of an offence.

PART VIII-APPRENTICESHIP AND TRAINING

Training orders for apprentices

21. The Minister may, after consultation with the Council, from time to time make orders, known as training orders, in relation to or regulating the employment, training and minimum remuneration of apprentices in any designated trade or occupation, and may make rules prescribing forms, fees, matters and things which are required, permitted or contemplated by this Part to be prescribed or which appear to the Minister to be necessary or convenient for the purpose of more effectively carrying out the objects and operation of this Part.

Apprentices

22.-(1) Any apprentice in any designated trade or occupation shall, notwithstanding any agreement to the contrary, be deemed to be employed under an agreement made between the Director on behalf of the Council, the apprentice or (if he is under eighteen years of age) a parent, guardian or a person in *loco parentis* to him, and the employer whereby the employer agrees to employ the apprentice, and the apprentice agrees to serve the employer, for the period of training specified in the rules.

(Amended by Act 25 of 1976, s. 4.)

(2) Notwithstanding the provisions of subsection (1), the Council may, if it thinks it appropriate-

- (a) release any employer or apprentice from their respective obligations to each other; or
- (b) transfer the benefits and obligations of the employer under any apprenticeship agreement to another employer who shall be willing to undertake them.

(3) Notwithstanding his powers contained in section 28, the Minister may make regulations prescribing the form of any apprenticeship agreement and the matters for which provision shall be made in any apprenticeship agreement.

(Inserted by Act 25 of 1976, s. 4.)

Arrangements where apprentice not engaged

23. The Council may make such arrangements as it thinks proper for safeguarding the continued training of any apprentice if such person is not, for any reason other than his own wilful default, engaged in his employment.

Exemptions

24. The Council may, if it deems it necessary in any particular case, in regard to the employment of an apprentice, exempt any person from any of the provisions of this Act or of any rule, order or regulation made thereunder.

Training orders for other persons

25. The Minister may, after consultation with the Council from time to time make orders, known as training orders, in relation to or regulating the employment and training of persons other than apprentices, and may make rules prescribing forms, fees, matters and things which appear to the Minister to be necessary or convenient for the purpose of more effectively carrying out the objects and operation of this Act.

PART IX-MISCELLANEOUS

Obstruction

26. Any person who does any act or thing for the purpose either of preventing or obstructing the Council, or any employer from carrying out any arrangement made by the Council under the provisions of this Act shall be guilty of an offence.

Authorised officers

27.-(1) The Council may appoint such persons as it thinks necessary, to be authorised officers for all or any of the purposes of this Act.

(2) An authorised officer may-

(a) at any reasonable time enter any premises in which he has reasonable cause to believe a designated trade or occupation is carried out, or where any apprentice is or has within the previous six months been or is believed to have been employed and examine the methods used on such premises in the training of apprentices and give advice in such training;

(b) with respect to matters under section 21, examine any person whom he finds on premises entered under the provisions of paragraph (a) and any apprentice, and require any such person or apprentice to appear before him at a reasonable time and place and to answer such questions as he may put touching such matters:

Provided that no person or apprentice shall be required by virtue of this paragraph to answer any question or to give any evidence tending to incriminate himself;

(c) at any reasonable time enter any premises and examine the methods used in the training of any person whom he finds employed in a trade or occupation the subject of a training order made under the provisions of section 25 and give advice in such training;

(d) require the production or delivery up of any of the records required to be kept by an employer by or under the provisions of this Act or of any orders or regulations made thereunder, and to examine and make extracts from, and copies of, any such records.

(3) An authorised officer may, by notice in writing served on any employer, or in respect of whom a levy order has been made or carrying on a designated trade or occupation or having a person in training or employing an apprentice, require him to keep and to furnish to him within a time or times and in a manner to be specified, such report or particulars as shall be specified with respect to the persons or any apprentice employed by him.

(4) An authorised officer shall be furnished by the Council with a certificate of his appointment and, when exercising, or seeking to exercise, any of the powers conferred on him by this Act, shall, on being required to do so, produce the certificate on demand.

(5) Any person who refuses or fails to comply without reasonable cause with any requirement made by an authorised officer under the provisions of this Act or who binds an authorised officer in the exercise of his powers under the provisions of this Act shall be guilty of an offence.

Regulations

28.-(1) The Minister may make regulations generally for the purpose of carrying out the provisions of this Act and, in particular, may make regulations in respect of any matter which he considers necessary or desirable for the furtherance of the functions conferred on the Council by this Act.

(2) Different regulations may be made under the provisions of subsection (1) in respect of apprentices, employers or employees or classes of apprentices, employers or employees, and of different occupations, and in making any such regulations the Minister may apply such method of differentiation as he may deem advisable.

PART X-APPEALS TRIBUNAL

Appeals Tribunal

29.-(1) There shall be an Appeals Tribunal to be called the National Training Appeals Tribunal, which shall consist of a Chairman and two other members, all to be appointed by the Chief Justice for a period not exceeding two years. The Chairman shall be a person qualified to practise in Fiji as a barrister and solicitor, one member shall be appointed to represent employers and one member shall be appointed to represent employees.

(2) The Chairman and other members of the Appeals Tribunal shall be paid respectively out of moneys of the Council such remuneration and allowances as the Chief Justice may, from time to time, determine.

(3) The Chairman shall have an original vote at meetings of the Appeals Tribunal.

(4) Any person aggrieved by-

(a) the implementation of the provisions of, or any decision on, any levy order;

(b) a decision of the Council made in relation to an apprentice; or

(c) the implementation of a training order made under the provisions of section 21, may, within three months of the date of the receipt of such decision, dismissal or order, or such longer period as the Appeals Tribunal may in any case allow, appeal from such decision to the Appeals Tribunal. Every such appeal shall be in writing and shall state the grounds thereof.

(5) Any person appealing to the Appeals Tribunal shall be permitted at the hearing of his appeal to appear in person or by a barrister and solicitor or other person of his own choice.

(6) The Appeals Tribunal shall have power to summon and examine witnesses on oath and affirmation and to require the production of all documents or other things in the possession of a witness relevant to an appeal, but shall not be bound by the rules of evidence in civil or criminal proceedings:

Provided that if any witness objects to answering any question or to producing any document or thing on the ground that it will tend to incriminate him or on any other lawful ground, he shall not be required to answer such question or to produce such document or thing, nor shall he be liable to any penalties under the provisions of this Act for refusing to do so.

(7) Any person summoned as a witness under the provisions of subsection (6) who fails to attend at the required time and place, or on any adjournment, or who, without lawful excuse, refuses or neglects to answer any question put to him by or with the concurrence of the Appeals Tribunal or to produce any document or thing which is in his possession and which he is required to produce shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$100.

(8) The Appeals Tribunal shall, on any appeal to it, confirm, rescind or vary any decision of the Council, and any such confirmation, rescission or variation shall be final.

(9) Persons summoned as witnesses shall be paid out of money of the Council such allowances (if any) as the Appeals Tribunal may, from time to time, determine.

(10) Subject to the provisions of this section, the Chief Justice may make rules as to the manner in which appeals shall be presented, and the procedure to be followed on appeals under the provisions of this Act.

PART XI-PENALTIES

Penalties

30. Any person who commits an offence under this Act shall be liable on conviction to a fine not exceeding \$500 or to imprisonment for a period not exceeding one year or to both such fine and imprisonment.

Controlled by Ministry of Employment and Industrial Relations

SUBSIDIARY LEGISLATION

CHAPTER 93 FIJI NATIONAL TRAINING

SECTION 19-FIJI NATIONAL TRAINING LEVY ORDER

Order 25th Sept., 1973, 5th Feb., 1974

Made by the Minister

Short title

1. This Order may be cited as the Fiji National Training Levy Order.

Interpretation

2. In this Order, unless the context otherwise requires, "wages" means all emoluments which would be due in money to an employee under his contract if no deductions were made therefrom, whether in pursuance of any law requiring or permitting the making of any deduction or otherwise and whether such emoluments have been agreed to be paid monthly, weekly, daily or otherwise:

Provided that the following shall be deemed not to be wages:-

- (a) payments made by an employer to an employee in reimbursement of sums necessarily expended by him on behalf of his employer for the purposes of his employment;
- (b) payments made by the Government of a State or by an organisation, which expressions shall have the same meaning as in the Diplomatic Privileges and Immunities Act, to any person employed in Fiji.

Scope of levy Order

3. A levy is hereby imposed on every employer in respect of all his employees, except the following employees:-

- (1) an employee based and paid overseas as long as his employment in Fiji does not exceed in the aggregate three months in any period of twelve months;
- (2) an officer or man of the Royal Fiji Military Forces;
- (3) a police officer;
- (4) a uniformed officer of the Prisons Service;
- (5) an employee or supervisor-
 - (i) of a recognised school, as defined in the Education Act; or
 - (ii) of any other school exempted from the provisions of this Order by the Minister;
- (6) an employee of a co-operative society, as defined in the Co-operative Societies Act, except those co-operative societies which may from time to time be designated by the Minister;

- (7) an employee employed by any organisation as defined in the Diplomatic Privileges and Immunities Act;
- (8) an employee employed by the Government of a State, as defined in the Diplomatic Privileges and Immunities Act;
- (9) a domestic servant, as defined in the Employment Act;
- (10) an employee actively engaged in and who has as his main occupation-
 - (i) agriculture;
 - (ii) forestry;
 - (iii) fishing;
 - (iv) advisory and training work in the Ministry of Agriculture, Fisheries and Forests;
 - (v) scientific and cultural research;
 - (vi) medical, dental, para-medical and health inspection work;
 - (vii) credit union work;
 - (viii) welfare and charitable work;
 - (ix) religious work;
 - (x) provision of live entertainment and cultural services as an artist or performer.

Amount of levy

4. The levy referred to in paragraph 3 shall be of an amount assessed from time to time by the Council to be equal to one per cent. of the total of the gross wages paid by the employers in the period prior to the date of such assessment in respect of all employees on whom this levy is imposed.

Service of notice

5. The Council shall serve or cause to be served a notice on the employer on whom the levy has been imposed by paragraph 3 specifying the date by which the levy shall be paid and the period in respect of which the assessment referred to in the last preceding paragraph is based.

Interest

6.-(1) Any sum due under this Order and unpaid on the date specified in any notice served under the provisions of paragraph 5 shall bear interest from that date at the rate of one per cent. per month or part of a month until payment:

Provided that if the amount of any interest amounts to a fraction of a dollar, the interest payable shall be calculated to the next highest dollar.

(2) The Council may in any case remit in whole or in part, whether prospectively or retrospectively, the payment of any interest.

(Paragraph amended by Order 5th February, 1974)

**PARAGRAPH 3 (6)-FIJI NATIONAL TRAINING LEVY
(DESIGNATION) ORDER**

Order 5th Feb., 1974

Made by the Minister

Short title

1. This Order may be cited as the Fiji National Training Levy (Designation) Order.

Designation

2. I have designated the following co-operative societies to be co-operative societies to which the provisions of sub-paragraph (6) of paragraph 3 of the Fiji National Training Levy Order shall not apply:-

Rotuma Co-operative Association,
Fiji Co-operative Association Limited.

SECTION 21-FIJI NATIONAL TRAINING (1973) ORDER

*Legal Notices Nos. 129 of 1973, 66 of 1976, 61 of 1979,
107 of 1980, 36 of 1982*

Short title

1. This Order may be cited as the Fiji National Training (1973) Order.

Designated trades or occupations

2. All trades or occupations are designated trades or occupations for the purposes of this Order.

Minimum remuneration

3. The minimum rates of remuneration of apprentices in any designated trade or occupation shall be as follows:-

During the first year of apprenticeship-85c per hour.
During the second year of apprenticeship-95c per hour.
During the third year of apprenticeship-\$1.04c per hour.
During the fourth year of apprenticeship-\$1.17c per hour.
During the fifth year of apprenticeship-\$1.32c per hour.

SECTION 21-FIJI NATIONAL TRAINING (1976) ORDER

Legal Notices Nos. 176 of 1976, 204 of 1979, 50 of 1982

Short title

1. This Order may be cited as the Fiji National Training (1976) Order.

Designated trades or occupations

2. The trades or occupations specified in the Schedule are declared to be designated trades or occupations for the purposes of this Order.

Standards of entry to apprenticeship

3.-(1) The standards of entry to apprenticeship shall be those set out in the training recommendations made by the Council in respect of such designated trades or occupations.

(2) In any designated trade or occupation in respect of which training recommendations have not been made the entry requirements are-

- (a) that an apprentice will have attained the apparent age of fifteen years. In the absence of a birth certificate a written assessment of age, by the Director, is conclusive proof for the purposes of this Order;
- (b) that a recent medical certificate is produced as to the apprentice's fitness to engage in the designated trade or occupation;
- (c) that the apprentice is capable of undertaking the theoretical part of the training;
- (d) that the apprentice practical aptitudes for the designated trade or occupation a willingness to apply his talents and passes a practical test if required by the Council;
- (e) that the apprentice must be prepared to live away from home for extended periods;
- (f) that the apprentice shall be party to and intend honouring the apprenticeship agreement.

Implied conditions

4.-(1) The following conditions shall be implied in every agreement of apprenticeship in a designated trade or occupation in force at, or made after, the commencement of this Order:-

- (a) on the part of the employer-
 - (i) to train the apprentice in accordance with the training recommendation where an appropriate recommendation exists;
 - (ii) to train or to have trained the apprentice to the best of his ability in the trade or occupation where no training recommendation is available;
 - (iii) to satisfy himself as to the suitability of the apprentice to undertake the necessary training and related education;
 - (iv) to offer related and progressive on-the-job training and experience during the period of the agreement;
 - (v) to release the apprentice, at wages not less than the rates in the Fiji National Training (1973) Order and travel and subsistence at the prevailing rates for periods of training or related education as determined by the Council;
 - (vi) to pay all fees in connection with classes/courses which the apprentice may be required

to attend;

(vii) to maintain records in respect of the apprentice on such matters as time worked, wages, travel and subsistence paid and to keep any records required the Council in respect of the apprentice;

(viii) to make available to the apprentice the requisite tools for the work which the apprentice will be engaged on if these tools are in excess of the tools prescribed by the Council and all necessary educational text books and drawing instruments;

(ix) to advance moneys to the apprentice for the purchase of tools prescribed by the Council and recover these moneys, less any tool allowance from authorities, from the apprentice in accordance with section 51 of the Employment Act;

(Cap. 92)

(x) not to require or permit the apprentice to work such hours as would necessitate the apprentice being absent from a day, evening or night related education class;

(xi) not to permit the apprentice if under eighteen years of age to work more than twenty hours overtime in any one month without prior Council approval;

(xii) not to permit the apprentice to work outside Fiji without the prior written permission of the Council;

(xiii) not to engage more than one apprentice for every two experienced employees in the relevant trade or occupation without Council approval;

(xiv) to apply for Council permission to employ the apprentice and to register the apprentice with the Council within one month from engaging the person as an apprentice;

(xv) not to request or to accept a premium in respect of the employment of the apprentice;

(xvi) to inform the Council, as soon as to possible, if he is or will be unable to provide employment or suitable training for the established apprentice and if such be the case, if required, to facilitate the apprentice's transfer on a temporary or permanent basis;

(xvii) to undertake to pay the apprentice wages not less than the rates in the Fiji National Training (1973) Order, and such travelling and subsistence allowance as the Council may determine;

(b) on the part of the apprentice-

(i) to obey lawful instructions and serve the employer to the best of his ability;

(ii) to maintain a high standard of honesty and safety in matters affecting the employer and not communicate to any person information that would hurt or damage the business of the employer;

(iii) not to absent himself from his employer's service except on medical grounds with a medical certificate or other reasonable grounds acceptable to the employer;

(iv) to attend off-the-job and related education courses as directed and seek to advance his skill and knowledge diligently without hindrance to the training and educational authorities or fellow trainees;

(v) to maintain any training records, on request by the employer or Council;

(vi) to equip himself progressively with tools as prescribed by the Council for his particular trade or occupation and repay money advanced for tools, if any, to his employer;

(c) on the part of the Council to register the apprentice in its records and to inform the employer and apprentice accordingly;

(d) a probationary period of six months shall be served by the apprentice, and the apprenticeship agreement may be terminated during this period by either party; such termination to be notified in writing to the Council by the employer within one week of the date of termination;

(e) the agreement shall terminate-

(i) when the Council is satisfied that the apprentice has completed the agreement; or

- (ii) if the Council is satisfied that the apprentice has not complied with the conditions of the agreement or is unsuitable for further training;
- (f) if an employer is satisfied that the apprentice bound to him by agreement under the provisions of this Order has committed a serious breach of the terms of such agreement or of any conditions of apprenticeship applicable to such apprentice, he may forthwith suspend the apprentice;
- (g) an employer who has suspended an apprentice shall report the matter in writing to the Director within three working days of the suspension and the Director shall then investigate the matter and may confirm or set aside the suspension of the apprentice or vary the term thereof;
- (h) if the Director sets aside the suspension of an apprentice, the employer shall pay to the apprentice such wages as may have been withheld from him during the period of suspension.

Breaking of the agreement

5. Any person who compels or induces a violation of an agreement of apprenticeship relating to a designated trade or occupation or who contravenes any of the provisions of this Order shall be guilty of an offence and liable on conviction to a fine not exceeding one hundred dollars or to imprisonment for a term not exceeding one month.

Apprenticeship agreement

6. Every apprenticeship agreement relating to a designated trade or occupation shall be written in the English language and signed by the employer, the apprentice, and, if the apprentice is under eighteen years of age, a parent, guardian, or the person in loco parentis to the apprentice and the Director on behalf of the Council, and shall contain-

- (1) the employer's name, place of business, business, and Fiji National Provident Fund number;
- (2) the apprentice's name, address, date and place of birth;
- (3) if the apprentice is under eighteen years of age, the name and address of his parents, guardian or the person who is in loco parentis to him;
- (4) the trade or occupation in which the apprentice is to be trained;
- (5) the period of training and (if applicable) the standards to be attained before completion of apprenticeship;
- (6) reference to the conditions as set out in this Order and in an approved training recommendation affecting the employer and the apprentice;
- (7) the signature and date of signing of the consenting parties which shall include the apprentice's parent, guardian or person in loco parentis if the apprentice is under eighteen years of age.

SCHEDULE
(Paragraph 2)
(Substituted by Legal Notice 50 of 1982.)

Designated trades or occupations

- (a)* Aircraft Maintenance
- (b)* Automotive-Electrical
- (c)* Automotive-Mechanic
- (d)* Boilermaking
- (e)* Carpentry
- (f)* Electrical, Fitter and Mechanic
- (g)* Electronics
- (h)* Fitting and Machining
- (i)* Joinery and Cabinet Making
- (j)* Marine Engineering
- (k)* Navigation and Seamanship
- (l)* Panel Beating
- (m)* Plumbing
- (n)* Printing
- (o)* Refrigeration and Airconditioning
- (p)* Saw Doctor
- (q)* Shipwright
- (r)* Welding and Fabricating

**SECTION 28-FIJI NATIONAL TRAINING (TRADE TESTING)
REGULATIONS**

Legal Notices Nos. 121 of 1976, 200 of 1977

Short title

1. These Regulations may be cited as the Fiji National Training (Trade Testing) Regulations.

Interpretation

2. In these Regulations, unless the context otherwise requires-

"appropriate form" means a form approved by the Minister for use in any particular case;
"trade test" means such test approved by the Minister, after consultation with the Council, as he may consider desirable for the purpose of determining the competence of a person engaged in any trade specified in the First Schedule.

Application

3. A person wishing to take a trade test shall apply on the appropriate form and shall pay the fees set out in the Second Schedule:

Provided that no application shall, without the written approval of the Director, be accepted unless-

- (a) in the case of an applicant for a Class III trade test, he has completed at least one year's employment in the trade;
- (b) in the case of an applicant for a Class II trade test, he has completed at least three years employment in the trade, and he has passed his Class III trade test;
- (c) in the case of an applicant for a Class I trade test, he has completed either a contract of apprenticeship in the trade under the Act or at least five years employment in the trade, and has passed his Class II trade test.

Trade test

4. A trade test shall be in the form and subject to the conditions prescribed by the Minister, after consultation with the Council.

Certificate

5. An applicant, after satisfying the Director that he has reached the required standard in a trade test, shall be granted a certificate in the appropriate form signed by the Director or by an officer authorised by him in writing, and by the officer examining the applicant in the trade test.

Register of certificates

6. The Director shall cause a register or registers to be kept in the appropriate form of certificates issued under regulation 5.

Offences

7. Any person who-

- (a) makes use of a certificate to which he is not entitled under these Regulations;
- (b) being entitled to a certificate under these Regulations, parts with possession of it to a person not so entitled;
- (c) alters or defaces a certificate issued under these Regulations, or makes any model, likeness or facsimile of such certificate with intent to deceive or defraud; or
- (d) fails to produce his certificate without good cause when the Director or a trade testing officer requires him to do so,

shall be guilty of an offence under the Act.

FIRST SCHEDULE

Trade

Group A-Building Trades: *Class of Trade Test*

Carpenter (General).....	III II I
Joiner	“ “ “
Blocklayer	“ “ “
Plasterer (General).....	“ “ “
Painter and Decorator	“ “ “
Signwriter.....	“ “ “

Group B-Metal Trades:

Plumber (General)	III II I
Pipe Fitter (General).....	“ “ “
Sheet Metal Worker	“ “ “
Welder (Gas).....	“ “ “
Welder (Electric Arc).....	“ “ “
Welder (Gas and Electric Arc)	“ “ “

Group C-Furniture Trades:

Cabinet Maker.....	III II I
Wood Machinist.....	“ “ “
Upholsterer	“ “ “

Group D-Mechanical Trades;

Fitter Machinist.....	III II I
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Group E-Automotive Trades:

Motor Vehicle Mechanic	III II I
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Group F-Printing Trades:

Letterpress Machinist.....	III II I
Lithographic Offset Machinist.....	“ “ “
Hand and Machine Typographer.....	“ “ “
Bookbinder	“ “ “
Photo Mechanic.....	“ “ “

SECOND SCHEDULE

(Substituted by Regulations 20th December, 1977)

Standard Fees

\$	
Tradesman Class III.....	5-00
Tradesmen Class II.....	8-00
Tradesman Class 1.....	12-00

REGULATION 4-APPROVED TRADE TESTS

Notices 22nd Dec., 1976, 5th Oct., 1977, 13th July, 1978

Approved by the Minister

TRADE TESTS

Note on General Safety

In the theoretical test, questions will be asked on safety topics of the relevant syllabus. Marks will also be awarded for the correct observance of safety procedures during the practical test. Candidates are therefore expected to have a thorough knowledge of the current safety regulations in force in their workshops or sites, and should be able to take the necessary precautionary measures against the hazards of using tools, machines, lifting gears and other equipment related to their trades.

Candidates will be expected to pay particular importance to cleanliness and tidiness when performing the various operations during the practical test, and all tools to be employed in the test should be in good condition.

System of Measurement

The Imperial System of Measurement will be used in all the practical tests until further notice.

However, trade tests using the Metric System could be arranged if specifically requested.

Group A-Building Trades

CARPENTER (GENERAL) **Tradesman Class III**

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 Saw, hand 26"
- 1 Stone, oil
- 1 Saw, rip
- 1 Can, oil
- 1 Saw, set
- 1 1 Rule, 3'
- 1 Brace, ratchet
- 1 Spirit level not less than 30" long
- 1 Hammer, claw, 16 oz.
- 1 pr. .. Dividers, 6"
- 1 Chisel, mortise 3/8"

- 1 Bevel, sliding
- 1 set .. Five twist bits, sizes 1/4"- 3/4"
- 1 File, saw 5" or 6"
- 1 set ... Five square edge wood chisels, sizes 3/4"-1 1/4"
- 1 Punch, nail 1/8"
- 1 Plane, Jack
- 1 Square, combination 12"
- 1 Nail, pouch or apron
- 1 Screwdriver 6"
- 1 Gauge, marking
- 1 Pinch bar 24"
- 1 Screwdriver, phillips 6"

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule to 1/16th of an inch or 1 mm.
3. The setting up and safe use of portable power tools to include the electric hand drill, grinder, sander, plane and saw.
4. The sawing and planing of a piece of timber, square, to a given length, width and thickness, using hand or portable power tools.
5. The ability to work to given dimensions, and be familiar with standard forms of measurement, both Imperial and Metric.
6. The recognition and measurement of timber and sheet materials in common use and to differentiate between good and defective timber.
7. The purpose and construction of the following types of joints:- halving, simple scarf joint, simple mortice and tenon, housing joints, bridle joints, mitred joints, simple dovetail joints, joints with timber connectors.
8. The construction of rough shuttering and bracing.
9. The fixing of reinforcement steel in simple slabs and beams.
10. The splicing of a door frame in position.
11. The construction and installation of ledge and braced door, including necessary hardware.
12. The simple repairs to sash and frame windows including glazing.
13. Types of lock in common use and their installation.
14. Common types of roof coverings and their fixing.
15. Construction of simple ladders and trestles, including their safety in use.
16. The carrying out of simple carpentry work such as cutting and nailing-nogging.
17. The interpretation of simple sketches with dimensions.
18. Familiar with the general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protection equipment.

CARPENTER (GENERAL)
Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Carpenter (General), the candidate must also be in possession of the following "tools:-

Quantity Item

- 1 set chisels, sizes 1/4"-1" Five bevelled edge wood
- 1 Saw, coping
- 1 Plane, smoothing
- 1..... Saw, keyhole
- 1 Punch, nail 1/6"
- 1 Saw, panel
- 1 Screwdriver, 4"
- 1 Bit, countersink
- 1 Screwdriver, 12"
- 1 Chisel, cold
- 1 Bradawl
- 1 pr. .. Pliers, combination
- 1 Twist drills 1/16"- 1/4"
- 1 Plumb bob
- 1 Drill, hand
- 2 Twist bits, sizes 7/8"-1"
- 1 Saw, file (3 corner) 3"
- 1 set .. Expansion bits 3/4"-2"
- 1 Saw, file (3 corner) 4"
- 1 Spokeshave (curved)
- 1 Cutter, glass.

* Equivalent tools in metric may be used.

The Candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Carpenter (General).

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. The interpretation of simple drawings and sketches and the preparation of material list.
3. The safe use, care and sharpening of carpentry tools.
4. The making of various joints used in carpentry.
5. Types of adhesives (glue), their preparation, application and common gluing defects.
6. The selection and correct use of fasteners.
7. The setting out and construction of simple arch centres.
8. The setting out and construction of formwork to straight flight stairs and landing.

The fixing of hand rails to metal balustrades.

9. The layout and construction of gable, hip and valley roofs.
10. The making of templates from diagrams.
11. An understanding of the structure of wood, hard and soft wood, seasoning (drying) and

- storage of timbers; local and imported timbers; and commercial forms of timber.
12. Application of simple building calculations.
 13. Methods of setting out and squaring foundations.
 14. The carrying out of normal internal and external finishing work to a building including installation of hardware.
 15. The construction of timber floors, for domestic buildings.
 16. The use of storey rod in carpentry work.
 17. Types of abrasive (sandpaper) and their uses.
 18. Familiar with timber scaffold construction and assembly of steel scaffold including scaffold safety.
 19. The setting up and safe application of the following portable power tools:- router, trimmer, and jig saw.
 20. Principles of setting and sharpening saws.
 21. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

CARPENTER (GENERAL)
Tradesman Class I

In addition to possessing the tools specified for the Class III and Class II tests in the trade of Carpenter (General) the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 Steel not less than 100'
- 1..... Builder's line not less than 100' long
- 1 Square, steel
- 1 Rule, scale

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Carpenter (General).

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is highly skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The interpretation of scale drawings, symbols, specification and making of sketches applicable to the trade.
3. Proficiency in the use of steel square in carpentry work.
4. The use of a dumpy level or similar instrument for setting out building work with acceptable tolerance.
5. Selecting, setting up and organising the safe use of power tools and equipment on site.
6. The carrying out of any finishing work applicable to the trade.
7. The setting out and construction of formwork for circular or non- rectangular footings, columns, beams, slabs and walls including expansion joints.
8. The application of geometry in relation to the setting out of foundations.

9. The carrying out of slump test on concrete and making of test cubes.
10. The layout and construction of splayed hip roof and roof trusses.
11. The setting out and construction of formwork to concrete stairs for circular, 'A or 74 space landing.
12. The preparation of bill of materials from drawing; be familiar with ordering procedures, bill of quantities, building regulations and time sheet.
13. The setting out and construction of double curvature arch centres.
14. Calculating the spacing and cross-sectional sizes of cleats, yokes, props, braces and walers for concrete formwork.
15. The use of suspended formwork, steel formwork and form hardware.
16. The principles of construction applied to timbering, underpinning and shoring.
17. Familiar with industrial framed timber floor construction.
18. The planning and organisation of carpentry work and be capable of providing leadership to tradesmen of lower levels.
19. Familiar with other trades allied to building construction.
20. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working in a carpentry shop or on site with reference to the current Factories Act.

JOINER
Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantify Item

- 2 Chisels, square edgewood
- 2 Chisels, bevelled edgewood
- 1 Stone, oil
- 1..... Punch, nail 1/8"
- 1 Saw, panel 22"-20"
- 1 Screwdriver, small
- 1 Screwdriver not less than 10" long
- 1 Gauge, mortise
- 1 Countersunk bit
- 1..... Hammer, claw, 16 oz.
- 1..... Plane, smoothing
- 1 Oil can
- 1..... Rule, 3"
- 1 Square, combination 12"
- 1 Brace, ratchet or 2 speed hand drill
- 1..... File, saw 5" or 6"
- 1 Saw, set
- 1 set Twist bits, sizes 1/4"- 3/4"
- 1 Plane, smoothing or high speed bits

**Equivalent tools in metric may be used.*

The candidate will be required to show by practical demonstration and an oral/written test

that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule to 1/16th of an inch or 1 mm.
3. The ability to work to given dimensions and be familiar with standard forms of measurement both Imperial and Metric.
4. The setting up and safe use of portable power tools to include the electric hand drill; sander-belt, orbital grinder (grindstone, sandstone, emery wheel); jigsaw. The importance of not to overheat tool steel when using these power tools.
5. An introduction in the safe use of the following woodworking machines:-
Planing machine;
Circular saw, rip, crosscut and combination;
Mortise machine-chisels, chain;
Band saw;
Cutter, grinder, planer.
Must know how to start and stop the machine and to execute simple jobs under supervision.
6. The purpose and construction of the following joints:-
halving, mortise and tenon, housing joints, mitred joints, lapped dovetail, through dovetail, hammer head keyed joints, slip tongue edge joints, tongue and grooved edge joints, carcass construction joints, glazing bar joints.
7. The proper skill in basic joinery operations (sawing across and along the grains, planing a true surface, cutting a mortise, rebating).
8. The construction of framed, ledged, braced and T & G sheeted door, to include mortising and tenoning by hand and machine, cleaning up of inside edges and assembly, painting of joints, preparation and fitting of sheeting, nailing and punching, fitting of braces hanging stile.
9. The construction of a simple sash door frame or window frame from a given set out.
10. Familiar with general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protective equipment.

JOINER Tradesman Class II

In addition to possessing the tools specified for Class III test in the trade of Joiner, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1..... Expansive bit ¾" to 2"
- 1..... Plane, steel jack
- 1 set . . . Three bevelled edge-wood chisels, sizes ¼"-1"
- 1 Plane, rebate
- 1 Saw, tenon
- 1 Mallet, wooden
- 1 Saw, coping
- 1 Screwdriver, ratchet
- 1 Bevel, sliding
- 1 pr. . . . Pincers
- 1 Knife, marking and scribing
- 2 Scrapers, cabinet

- 1 Hammer, brad
- 1 Router
- 1 Spirit level not less than 30” long
- 1 set . . . Three chisels, firmer
(registered)

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Joiner.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above, and the mechanical equipment used in the trade, to include the machine tools and mechanical tools mentioned in paragraphs 4 and 5 of test Class III.
2. The reading of simple drawings, sketches and the setting out of measurements prescribed on drawings and Joinery Rods.
3. The sharpening of all the joinery hand tools according to the proper techniques.
4. A good working knowledge about timber, to include identification and structure of wood, types of timber local and imported, terms relating to timber and market sizes, seasoning and storing timber.
5. The proper use of glues and adhesives to include types of glues, gluing process, preparation and application of glues, common gluing defects.
6. Types of nails, screws, ironmongery. The fixing and fitting of hinges, locks, window fasteners, mortise locks, drawer locks, cupboard locks, finger plates, drawer handles, pivot window fasteners, and fittings.
7. The production of glazed screens and partitions in hardwood and softwood.
8. The moulding of simple architraves by hand and machine; must know the use of plinth-block.
9. The production of various types of flush doors in common use, applying hardboard or plywood facing.
10. The construction of all types of windows, to include top hung, pivot hung or inward opening types.
11. An understanding of table construction with solid and blockboard tops; laying of former; edging strips; table leg joints, use of buttons; framing for drawers.
12. The techniques of panelling (framed, hardwood panelling with stuck and planted moulding, blockboard and plywood panels, methods of fixing).
13. The working of elementary trade calculations to include linear, surface and cubic measurements, and to be able to determine the quantity of timber required for a given task.
14. An understanding of the qualities of various plywoods and how to test their suitability for exterior work.
15. An understanding of shop fitting for either shop fronts, stall boards and internal fixtures.
16. Cafe seating and commercial kitchen fitment construction with particular regard to design of cleanliness features.
17. A basic understanding and the skill in cutting and fixing glass.
18. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

JOINER
Tradesman Class I

In addition to possessing the tools specified for the Class III and Class II tests in the trade of Joiner, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 . . . Drill, hand
- 1 . . . Tape, steel, not less than 50 feet long
- 1 . . . Steel roofing square
- 1 . . . Rule, scale
- 1 . . . Bevel, sliding

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesmen Class II in the trade of Joiner.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. Techniques of drawer construction, the types of joints to be used, the use of dovetailing machine, the use of drawer blocks, runners and stops.
3. General construction, the working to diagrams or drawings with prescribed dimensions. Able to make out rods and diagrams for lower class joiners and wood machinists to work from.
4. The identification of all the usual prescriptions and symbols used on drawings applicable to the trade.
5. The setting out and construction of staircases of the following designs with or without the use of a steel setting out square:-

return flight with false landing;

kites and winders, or dog-leg stairs.

6. The use of veneers and laminates for finishing works applicable to joinery.
7. The setting out and construction in timbers of all types of doors and frames and window sashes and frames including circular work,
8. An understanding of bills of quantities and specifications.
9. An understanding and application of paints for exterior joinery.
10. An understanding and application of finishes for interior and exterior joinery.
11. The construction of all types of cabinets normally manufactured in a joinery shop.
12. The making out of time sheets for specified jobs, and compiling materials and costs made out from drawings.
13. An understanding of timber gradings and classifications and the suitability of various species of timber for joinery.
14. The ability to set out and make all joints as normally used in joinery construction.
15. The planning and organisation of joinery work, and be capable of providing leadership to tradesmen of lower levels.

16. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working in a joinery shop or on site with reference to the current Factories Act.

BLOCKLAYER Tradesmen Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 . . . Trowel, brick
- 1 . . . Hammer, brick
- 1 . . . Trowel, pointing
- 1 . . . Hammer, claw
- 1 . . . Rule, 3'
- 1 . . . Brick bolster
- 1 . . . Level, spirit, not less than 2' long
- 1 . . . Chisel, cold
- 1 . . . Line, cotton or nylon, not less than 100'
- 1 . . . Plumb bob
- 1 . . . Hand board not less than 10" square
- 1 . . . Square, combination
- 1 . . . Saw, cross cut
- 1 . . . Rule, plumb
- 1 . . . Saw, hack
- 1 . . . Tape, steel, flexible 6'
- 1 . . . Hammer, club.

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with the rule to $1/8^{\text{th}}$ of an inch or 3 mm.
3. The reading of simple sketches.
4. The mixing of concrete, and the care and use of gauge boxes.
5. The mixing of mortars for concrete blocks to include cement and sand mixes, cement and lime mixes and various types of sands.
6. The basic requirements to obtain proper bond with mortars, to include use of ingredients, control of mortar mixes, purpose of wetting blocks, keeping material clean and the correct method of spreading mortar.
7. An understanding of the various shapes, types, sizes of blocks and their properties.
8. The difference in concrete mixes proportions and water content.
9. The laying of blocks to a line.
10. The construction of corner lead blocks using plumb rule or upright.
11. The placing of concrete in simple stepped footings ground floor slabs to given levels, columns and beams.
12. Bar sizes, laps and reinforcing blockwork to bond beam height.

13. The curing of concrete in slabs, columns and beams.
14. The placing of steel reinforcement in walls, floors, columns, beams, stairways and footings, making provision for concrete cover to steel work.
15. Bending of bars, using bending machine or marked bench.
16. Familiar with the general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protective equipment.

**BLOCKLAYER
Tradesman Class II**

In addition to possessing the tools specified for the Class III test in the trade of Blocklayer, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 Tape, steel, not less than 100'
- 1 Chisel, plugging

*Equivalent tools in metric may be used

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Blocklayer.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The construction of an item shown on a given drawing, which will include internal and/or external return corners and attached or detached bonds either stack or stretcher and/or decorative bonds.
2. The laying and purpose of a damp-proof course shown on a given drawing.
3. The construction of stone facing panel to a vertical and/or sloping finish with the required reinforcement.
4. The placing, compacting, curing of concrete and setting time.
5. Application of the "3, 4, 5" method of setting out.
6. The use of gauge rods.
7. The construction of lintels either in situ or pre-cast.
8. The setting out of windows and door frames during construction.
9. Familiar with construction of simple scaffolding with proper regard to safety.
10. The interpretation of simple drawings and specifications.
11. Elementary calculations related to the trade to include measurements in both Metric and Imperial.
12. An understanding of the general safety plus a knowledge of the procedures when an accident occurs.

**BLOCKLAYER
Tradesman Class I**

In addition to possessing the tools specified for the Class III and Class II tests in the trade of Blocklayer, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 Rule, scale
- 1 Float, steel
- 1 Float, wood

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Blocklayer.

For the Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is highly skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The setting out of blockwork.
2. Modular concrete block construction and types of bonding used.
3. A knowledge of building specifications and bill of quantities.
4. Calculating ratios and proportions in the application of concrete and mortar mixes.
5. A thorough knowledge of reinforcing.
6. The carrying out of slump tests on concrete and test cubes.
7. The reading and interpretation of scale drawings and the preparation of freehand sketches of construction details.
8. A thorough knowledge of trade calculations.
9. Estimating quantities, production time and costs, and be capable of providing leadership to tradesmen of lower levels.
10. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working on the site with reference to the current Factories Act.

PLASTERER (GENERAL) Tradesman Class III

The Candidate must have in his possession the following *tools:-

Quantity Item

- 1 Rule, 3' or flexible steel tape, 6'
- 1 Brick, trowel
- 1 Hammer, claw pein 1½ lb. or 21b.
- 1 Hammer, club or ball
- 1 Chisel, cold ½" or 1" not less than 6" long not less than 100' long
- 1 Line, cotton or nylon
- 1 Level, spirit, not less than 2' long
- 1 Plumb bob
- 1 Trowel, pointing 6"
- 1..... Float, steel
- 1 Float, wood
- 1 Handboard not less than 10" square

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with the rule to 1/16th of an inch or 1 mm.
3. The reading of simple sketches.
4. The selection and use of a straight edge and wooden square.
5. The preparation and fixing of guide battens, dotting and screeding.
6. The preparation of backgrounds to receive plaster, walls, columns and beams.
7. The ability to work to given dimensions, and be familiar with standard forms of measurement.
8. The preparation of wall surfaces for plastering.
9. The selection and use of plaster mixes, sand/cement/lime and additives.
10. Application of plaster between battens.
11. The production of a reasonable finish of surface, using wood float, sponge or steel float.
12. Screeding and finishing a concrete floor to a reasonable finish, plain or colour.
13. Familiar with the general safety rules in the use of tools and other equipment related to the trade to include electrical shock and use of protective equipment.

PLASTERER (GENERAL)
Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Plasterer (General), the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 pr. Pliers, long nose
- 1 Pliers, straight jaw
- 1 File, flat
- 1 File, round
- 1 Cutter, tile
- 1..... Saw cross cut.

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Plasterer (General).

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. The use of chemical bounding agents, plasticizer and water proofing.
3. The rendering/plastering of walls, ceilings, columns, beams, to a good finish with wood float, sponge or steel float.
4. The plumbing and lining of dots and plaster screeds vertically and horizontally.
5. The laying and finishing of concrete or sand/cement floor screeds as specified with or without fall.
6. The application of decorative textured finishes with hand or powered machine (tyrolean).
7. The curing of cement works, concrete, mortar and plaster.
8. Calculating plaster mixes, in proportion and quantities.
9. Familiar with construction of simple scaffolding with proper regard to safety.
10. The interpretation of simple drawings and specifications.

11. An elementary knowledge of tiling.
12. Elementary calculations related to the trade, to include measurements in both Metric and Imperial.
13. An understanding of the general safety plus a knowledge of the procedures when an accident occurs.

PLASTERER (GENERAL)
Tradesman Class I

In addition to possessing the tools specified for the Class III and Class II tests in the trade of Plasterer (General), the candidate must also be in possession of the following *tools:-

Quantity Item

- 1..... Tape, steel 100'
- 1..... Rule, scale

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Plasterer (General).

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is highly skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The selection of common building materials suitable for specified jobs, their use and storage.
2. The use of the scale rule.
3. Concrete aggregates, placing, compacting and curing.
4. An understanding of modular concrete block construction.
5. Knowing the "3, 4, 5" method of setting out.
6. Forms of tiling in common use, to include laying, fixing and cutting.
7. A knowledge of reinforcing.
8. Detecting and curing defects on concrete blocks, plaster and tiles.
9. Know how to operate machinery commonly used in plastering, to include concrete mixers, vibrators, compressors and small power hand tools.
10. The reading and interpretation of scale drawings, and the preparation of freehand sketches of construction details.
11. A thorough knowledge of trade calculations.
12. Estimating quantities, production time and costs and be capable of providing leadership to tradesmen of lower levels.
13. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working on the site with reference to the current Factories Act.

PAINTER AND DECORATOR
Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 Apron with pouch

- 1 Pencil
- 1 Rule, 3' or 1m.
- 1 Knife, stopping
- 1 Spirit level no less than 30" long
- 1 Scraper
- 1 Paint pot
- 1 Brush, wire
- 1 Burning off knife.

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge in the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule to 1/16th of an inch or 1mm.
3. The mixing of paint ready for general use.
4. The techniques required in the preparation of old and new surfaces for painting or repainting.
5. The stripping of paint from old woodwork.
6. The techniques required in the using and mixing of distemper, lime to paint.
7. The glazing in glass to single metal and wood frames, determining the type of putty to be used.
8. Types of paints and their general use.
9. The selection of basic materials to compose paint.
10. Finishing in different mediums, including finishing of woodwork.
11. Types of fillers and where and how they would be used.
12. Techniques used in glazing other than with putty.
13. Familiar with the general safety rules in the use of tools and other equipment related to the trade.

PAINTER AND DECORATOR Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Painter and Decorator, the candidate must also be in possession of the following *tools:-

*Equivalent tools in metric may be used.

Quantity Item

- 1..... Tape, steel 6' or 2m.
- 1..... Plaited nylon line not less than 100' long.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Painter and Decorator.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge in the following, in addition to all the requirements laid down in the Class III test:-

1. Names and identification of colours.
2. The preparation and finishing of panel to different finishes.
3. Methods used in the preparation of old work.
4. Techniques used in glazing containing circular and shaped work.
5. Techniques used in the restoration of surfaces of original finish.
6. Necessary precautions to be taken when using decorative materials.
7. Measuring amount of material used on a job.

PAINTER AND DECORATOR
Tradesman Class I

The candidate must have in his possession all the tools prescribed for Class III and II tests for the trade of Painter and Decorator.

The candidate must have obtained a Trade test Certificate for a Tradesman Class II in the trade of Painter and Decorator.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The techniques used in the mixing for specific colours and matching of the same.
2. The making out of quantities from drawings or from other information given.
3. Standard specifications and their requirements concerning painting.
4. The production of different kinds of decorative finishes representing different materials.
5. Methods to deal with a painting job where ideal conditions are not present.
6. Purpose, use, cleaning and maintenance of the spray painting equipment.
7. Application of spray painting according to requirements.
8. The carrying out of preparatory work before spray painting to include the application of primer paint, puttying and smoothing down.
9. Techniques used in scaffolding, to include the construction of simple scaffold for painting or glazing.
10. Safety precautions required in scaffolding for a painting job.
11. Estimating quantities, production time and costs, and be capable of providing leadership to tradesmen of lower levels.
12. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working with special reference to the current Factories Act.

SIGNWRITER
Tradesman Class III

The candidate must have in his possession the following *tools:-

<i>Quantity</i>	<i>Item</i>	<i>Quantity</i>	<i>Item</i>
1	Knife, stripping		
1.....	Line		
1	Brush, dusting		
1 set . . .	Brushes		
1.....	Rule		

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge in the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule to 1/16th of an inch or 1 mm.
3. Techniques used in the mixing of paints ready for general use.
4. The preparation of surfaces before painting.
5. The stripping of paint from old painted surfaces.
6. The use of stencils.
7. Types of paints and their general use.
8. Types of fillers and mode where and how they would be used.
9. The preparation and finishing of woodwork.
10. The identification and selection of basic materials for specific work.
11. Techniques used in finishing in different mediums.
12. The writing of a simple sign in English, Fijian or Hindi.
13. The writing of signs in straight block capitals.
14. The setting out, in the candidate's own style, of a board comprising varying heights of letters.
15. Familiar with the general safety rules in the use of tools and other equipment related to the trade.

SIGNWRITER Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Signwriter, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1..... Square, tee
- 1..... Set square 90° x 45°
- 1 pr. . . . Compasses
- 1..... Set square 90° x 60° x 30°
- 1 Protractor
- 1 Set square, adjustable
- 1..... Level, spirit

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Signwriter.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III Test:-

1. The identification, care, use and maintenance of the tools listed above.
2. Identification of colours.
3. The writing of signs in Roman or pseudo-Roman capitals
4. The setting out and writing of a fascia board.
5. The writing of signs on a given arc.

6. The writing of signs in reverse on glass.
7. The various types of serifs in common use.
8. Familiar with the erection of scaffolding.
9. Safety precautions required in scaffolding for signwriting.
10. General techniques used in signwriting and decorative painting, to include the proper combination of colours, decorative elements and letters.

SIGNWRITER
Tradesman Class I

The candidate must have in his possession all the tools prescribed for Class III and II tests for the trade of Signwriter.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the trade of Signwriter.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The correct use, care and maintenance of drawing instruments, drawing boards and pencils.
2. Techniques used in mixing for specific colours and matching same.
3. Working out quantities from drawings or from other specifications given.
4. Standard specifications and their requirements concerning signwriting.
5. The making of a sign in gold-leaf work.
6. The setting out and writing of a fascia board in different style, e.g. a trade mark.
7. Complete setting out of a board with a motif and writing in different colours.
8. The execution of work in simple perspective.
9. The simple enlarging of a motif or trade mark.
10. The setting out of geometrical designs on ground of an unusual shape e.g., ellipse, hexagon, etc.
11. The lining out of a board.
12. The use, cleaning and maintenance of spray painting equipment. The techniques used in spray painting equipment for a signwriter job.
13. The carrying out of preparatory work before spray painting to include the application of primer paint, puttying and smoothing down.
14. Estimating quantities, production time and costs, and be capable of providing leadership to tradesmen of lower levels.
15. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working with special reference to the current Factories Act.

Group B-Metal Trades

PLUMBER (GENERAL)
Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantify Item

- 1 Rule, 24", folding

- 1 Saw, hack, junior
- 1 Tape, flexible 10'
- 1 Saw, hack 12"
- 1 Spirit level, 2' long
- 2 Chisels, cold ¼", ½"
- 1 Plumb bob 1 lb.
- 1 File, second cut, half- round 12"
- 1 Hammer, ball pein ¾ lb.
- 1 Hammer, ball pein 1½ lb
- 1 File, second cut, flat
- 1 Screwdriver 6"
- 1 File, second cut, round 8"
- 1 Screwdriver 12"
- 1 Wrench, pipe 8"
- 1 pr. ... Snips, straight 12"
- 1 Wrench, pipe 12"
- 1 pr. ... Snips, curved 12"
- 1 Spanner, adjustable shifting 6"
- 1 Drill, breast ½"
- 1 Spanner, adjustable shifting 12" inch by 1/16 of an inch
- 1 set .. Drill bits 1/16" to half
- 1 Pliers 8" 1 Soldering iron
- 1 Groover 3/8"
- 1 set ... Rivets, snap

* Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule to 1/16 of an inch or 1mm.
3. Know the names of fittings, pipes, sheet plates and other materials, and the ability to identify them.
4. Basic workshop skills to include drilling metal, boring holes in wood, filing and sawing of metal, tapping holes, screwing iron pipes, marking and drilling of sheets.
5. The ability to work to given dimensions, and familiar with standard forms of measurement both Imperial and Metric.
6. The use of pipe cutter and hacksaw to cut pipe square or to given angle.
7. The bending of copper, mild steel and wrought iron pipes (up to ¾ in. in diameter in copper, and 1 in. in diameter in steel and iron), using any method.
8. The use of pipe wrench and tongs to make watertight joints to straight runs of pipe.
9. The techniques in the joining of pipes of different materials including the fixing of pipes to walls.
10. The selection of cutting tools, and the cutting to given dimensions, of copper, cast iron, mild steel, P.V.C., polythene, concrete and stoneware pipes.
11. Simple soldering operations in soft solder.
12. Techniques in the use of stocks and dies.
13. Familiar with a cold water supply system used in houses to include layout, cutting,

- bending and jointing various kinds of pipes and jointing to household appliances.
14. The maintenance of taps, valves and flushing cisterns, their adjustments and diagnosis of valve problems.
 15. Techniques in the clearing of blockage above and below ground.
 16. The use of unions, elbows, tees and the cutting of long screws in various sizes.
 17. The laying and joining of metal, glazed earthenware drains and plastic pipes to a given fall. The replacing of damaged sections and the testing for soundness of drains.
 18. The understanding of simple diagrams of plumbing layouts.
 19. Familiar with the general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protective equipment.

PLUMBER (GENERAL)
Tradesman Class II

In addition to possessing the tools specified for Class III test in the trade of Plumber (General), the candidate must also be in possession of the following *tools:-

Quantify Item

- 1 Square, steel
- 1 File, bastard, flat
- 1 Wrench, pipe, 18"
- 1 Chisel, cold ¾"
- 1 set . Spanners, basin
- 1 set . . Stock and dies ½ -1½"
- 1 Wrench, strap
- 1 Springs, for copper and P.V.C.
- 1 Bar, pinch 2'
- 1..... Cutter, copper, ½"-1½"

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Plumber (General).

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. The use of blow lamps (torches) and the identification and use of various solders and fluxes.
3. The soldering or brazing of copper, brass and tin sheet lap joints.
4. The installation of sanitary appliances for domestic and institutional building.
5. The overhauling and rectification of faults in various types of valves and their connections.
6. The use of all appliances and attachments for clearing blockage in drainage systems.
7. The ability to identify and use all types of plumbing fittings in common use.
8. Types of drainage above and below ground systems.
9. Types of domestic hot water systems to include gas, electric and solar.
10. The setting out and installation of a complete cold water supply to include domestic water services systems.
11. The installation of flashings and the carrying out of all types of metalwork associated

with plumbing.

12. The ability to make simple sketches of sanitary appliances and pipe fittings.
13. The interpretation of a simple drawing of a two storey building on sanitation and drainage.
14. The ability to make simple isometric sketches of pipe works and sheet metal products.
15. Familiar with the water and health regulations generally in force.
16. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

PLUMBER (GENERAL) Tradesman Class I

In addition to possessing the tools specified for the Class III and Class II tests in the trade of Plumber (General), the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 Bevel, sliding
- 1 Mallet, bossing
- 1 Boxwood, dresser, flat
- 1 pr. . . . Pliers, mole, self grip, faced straight jaw
- 1 Saw, pad (3 blades)

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Plumber (General). The possession of a Water Fitter's Licence and Sanitary Constructor's Licence are recommended.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled with a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The interpretation of complex house plans of multi-storey building on sanitation drainage and pipe works.
3. The reading and interpretation of horizontal and vertical section of drainage systems.
4. The making of a bill of quantities and cost out.
5. The installation of electric, and gas heaters and cookers.
6. The installation of large storage tanks and fittings.
7. The installation of water, gas, air and sanitary systems of advanced nature.
8. The testing of water and gas services, drainage and sanitary systems by acceptable methods.
9. The meaning of the following, in relation to the trade: acids; corrosion in metals; salt in relation to hardness of water; heat and temperature; expansion.
10. The setting out of levels, using Cowley and builders level.
11. Pipe sizing, flow rates, demands, source assessment and quantities.
12. The making of sketches and diagrams for use by lower class plumbers, to include the preparation of schedules of materials from drawings and time sheets for a specific job.
13. Estimating quantities, production time and costs, and be capable of providing leadership to tradesmen of lower levels.
14. Knowing all the valid regulations and standards related to all kinds of plumbing works.

15. A thorough understanding of all the safety regulations and precautions to be taken for safe working in a plumbing shop or on site with reference to the current Factories Act.

PIPE FITTER (GENERAL)
Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 Rule 3'
- 1..... File, second cut, half round
- 1 Tape, flexible 10'
- 1 pr. .. Snips, straight 12"
- 1 Level, spirit not less than 2'
- 1 pr. ... Drill, breast ½"
- 2 Hammers, ball pein ¾ lb. and 1½ lb.
- 1 set ... Drills, 1/16"-1/12"
- 1 Driver, screw 6"
- 1 set.... Stock and dies ½"-1"
- 2 Wrenches, pipe 8" and 14"
- 1 Plumb bob, 1 lb.
- 1 Spanner adjustable 12"
- 1 pr. .. Compasses, wing
- 1 pr. .. Pliers 8"
- 1 set ... Punches 1/8"-3/4"
- 1 Saw, hack 12"
- 1 Lines, chalk
- 1 Chisel, cold ½"

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule 1/32nd of an inch or 1 mm.
3. The use of stock and dies for cutting threads on mild steel pipes up to ¾" diameter.
4. The measuring, marking and setting out of minor work.
5. The selection and use of cutting tools, such as hacksaw and blades, wheel cutters, cold chisel and reamers.
6. The ability to work to given dimensions, and be familiar with standard forms of measurement both Imperial and Metric.
7. Bending of mild steel and copper pipes up to ¾" diameter, by means of machine.
8. The joining and fixing of: mild steel pipes to ¾" in diameter by screwed joints; copper pipes up to ¾" in. in diameter by capillary soldering or compression; P.V.C. pipes up to 1 in. in diameter by the solvent cement method.
9. The selecting of fittings to suit various types of fittings, apparatus and equipments.
10. The connection of water and waste pipes to single fittings, e.g. cooling towers, washing plants.

11. The fabrication of pipe hangers, clips and brackets, and the fixing of pipes to surfaces.
12. The understanding and interpretation of simple working drawings and sketches.
13. The elementary working principles and common faults of bib taps, filler taps, gate valves, stop cocks and ball valves.
14. Simple properties of common metals and materials used in the trade.
15. Familiar with the general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protective equipment.

PIPE FITTER (GENERAL)
Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Pipe Fitter (General) the candidate must also be in possession of the following ***tools:-*

Quantity Item

- 1 Square, steel 12"
- 1 File, bastard, flat
- 1 Screw driver 6"
- 1 set . . . Stock and dies 1"- 2"
- 1 Spanner adjustable shifting 6"
- 1 set . . . Trammel points
- 1 Saw, hack junior
- 1 pr ... Pliers, gas 10"
- 1 Chisel, cold $\frac{3}{4}$ "

**Equivalent tools in metric may be used.*

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Pipe Fitter (General).

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. The cutting, threading and bending by machine and the heating and joining of mild steel pipes up to 2 in. in diameter.
3. Heat bending and joining of P.V.C. pipes up to 2 in. in diameter.
4. Bending (by machine) of copper pipes up to 1 in. in diameter, and heating and joining by means of capillarity or compression.
5. The fabrication of mild steel pipe mitred joints, and welding by means of oxy-acetylene.
6. The joining and fixing of cast iron, asbestos, copper, P.V.C. and mild steel pipes, up to 4 in. in diameter.
7. The connecting of water and waste water pipes to a range of fittings.
8. The carrying out of hydraulic test to water reticulation.
9. The carrying out of pneumatic or air test to gas and air services.
10. The working principles and common faults of all types of pressure control valves and relief valves.
11. The causes and remedies to noises, in cold water systems, and remedies to air locks, in hot water systems.
12. A good working knowledge of geometrical layout in respect to setting out angles,

branches and flanges.

13. The reading, interpretation and making of sketches and drawings of pipe works.
14. Calculating capacity of containers, water heads, pressures and weight of water.
15. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

PIPE FITTER (GENERAL) Tradesman Class I

In addition to possessing the tools specified for the Class III and Class II tests in the trade of Pipe Fitter (General) the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 Wrench, pipe or tong (chain) 24"
- 1 Tape, steel not less than 100'
- 1 Wrench Stillson 24"

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Pipe Fitter (General).

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The brazing and bronze welding of mild steel and copper pipe joints.
3. The joining of mild steel, P.V.C., copper, cast iron and asbestos pipes, up to 4in. in diameter by using normal joining methods.
4. Connecting pipes to special apparatus, boilers and other equipments for hospitals, industrial and institutional buildings.
5. The reading and interpretation of complex pipe drawings of multi-storey buildings.
6. The reading, interpretation and making of horizontal and vertical sections of pipe reticulations.
7. The working of percentages in relation to material and wastage.
8. An understanding of all hot and cold water systems, their layout and general principles.
9. The working principles of most types of hot water heaters.
10. An understanding of natures of water, air and gas.
11. Elementary working principles of common types of water pumps and meters.
12. Being capable of commissioning any system that has been installed.
13. The installation and layout of steam boilers and ancilliary pipework, insulation and protection of exposed pipework.
14. The carrying out of general repair maintenance to marine, fresh water and fuel oil pipeworks.
15. Conversant with hydraulic lines installation and testing to required pressures.
16. The designing and installation of pipework to oil depots, bowsers and tanks.
17. The installation and commissioning of Fire Services sprinkler systems, and dry and wet risers.
18. Pipework for a portable irrigation system,
19. Estimating quantities, production time and costs, and be capable of providing leadership

to tradesmen of lower levels.

20. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working in the shop or on site with reference to the current Factories Act.

SHEET METAL WORKER Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 Rule, 3'
- 1..... Spanner, adjustable 6"
- 1 Tape, flexible, 10'
- 1 pr ... Pliers, combination 8"
- 1 Square, try 6"
- 1 pr.... Pliers, self grip 8"
- 1 pr Dividers 14"
- 1 Hacksaw 12"
- 3 Hammers, ball pein $\frac{3}{4}$ lb-1 $\frac{1}{2}$ "
- 1 Chisel, cold $\frac{1}{4}$ "
- 2 Drivers, screw 6"-12"
- 1 Chisel, cold $\frac{1}{2}$ "
- 1 set . . . Groovers, hand $\frac{3}{16}$ "- $\frac{1}{2}$ "
- 1 set . . Files (common types)
- 1 set . . . Rivets $\frac{1}{8}$ "
- 1 Snips, straight 12"
- 1 set Rivets $\frac{1}{4}$ "
- 1 Snips, curved 12"
- 1 Bevel, sliding 8"
- 1..... Punch, rivet 6"x $\frac{1}{8}$ "
- 1..... Iron, soldering
- 1 Mallet

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge in the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule to $\frac{1}{32}$ nd of an inch or 1mm.
3. Elementary principles in the operation, manipulation and the proper use of the following machines and appliances- hand lever shears, folder, guillotine, bending machine, bending rollers, wiring jenny, swaging machines, various stakes, crease iron, grooving stakes, bick iron, groover and hollowing, blocking, stretching, raising and planishing hammers.
4. The punching and drilling of holes, rivetting, filing and sawing.
5. The seaming and soldering of zinc and tin coated sheets. The use of fluxes in soldering and how to make up fluxes for zinc or tin soldering.
6. The carrying out of simple jobs in tin plate, sheet steel, copper, zinc and aluminium.
7. The making of lap, flush and grooved joints.

8. The ability to work to given dimensions, and familiar with standard forms of measurement both Imperial and Metric.
9. The principle of single and double seaming, and the making up of simple rectangular or round containers from a sketch or sample.
10. The production of wired edge by hand and beaded edge by machine.
11. Using various methods of setting out radial and parallel line, for pattern development.
12. The classification of properties and commercial forms of materials used in the trade.
13. The names, description, dimension and allowances for various joints used in the fabrication of sheet metal products.
14. The selection and use of joints to suit various types of jobs.
15. The reading and interpretation of simple working drawing and sketches.
16. Simple mensuration and development required for the making of simple cylindrical and rectangular articles from a drawing.
17. The use of templates for setting out sheet metal products.
18. An introduction to spot welding of thin gauge metals.
19. Familiar with the general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protective equipment.

SHEET METAL WORKER Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Sheet Metal Worker, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 Square, steel 2'
- 1..... Drill, breast ½ "
- 1..... Level, spirit 2'
- 1 set . . . Bits, drill 1/16- ½"
- 1 set . . . Punches, metal
- 1 Punch, centre 4"
- 1 set . . . Points, trammel
- 1 Pliers, seaming
- 1..... Protractor

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Sheet Metal Worker.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge in the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. Hollowing, raising and planishing.
3. Tinning of vessels and an understanding of galvanising.
4. Undertaking all types of brazing and the use of the spot welding machine.
5. Welding in ferrous and non-ferrous light gauge sheet-metal.
6. The use of bench rollers and a wheeling machine.
7. Repairing of vessels that have contained combustibles, e.g. petrol tanks.

8. Safety precautions necessary when repairing vessels that contain combustibles.
9. Elementary setting out required for the making of conical shaped articles, segmental and double curvature work.
10. Properties of the various metals used in the trade, to include, resistance to corrosion, electrolyte effect of dissimilar metals in close contact when exposed to heat and dampness. Corrosive effects of certain fluxes not properly neutralised, malleability, tenacity and ductility.
11. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

SHEET METAL WORKER Tradesman Class I

The candidate must have in his possession all the tools prescribed for Class III and II tests for the trade of Sheet Metal Worker.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the trade of Sheet Metal Worker.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled with a sound knowledge of all the skills and operations of the trade, including the following:-

1. The preparation of dimensioned drawings for an air or dust extraction plant.
2. Designing a tank to hold a specified quantity of liquid, one measurement being fixed.
3. Development by triangulation, long radius, parallel line, or calculation patterns for all forms within the scope of the trade.
4. Principles and practice of oxy-acetylene equipment and welding techniques including high and low pressure systems.
5. Solders and their uses, together with the appropriate fluxes for material such as zinc, tin-coated metals, copper, brass or sheet steel. The ability to determine roughly the tin content of various types of solders.
6. The making of watertight riveted and/or soldered joints in galvanized, tinned and copper-bearing material up to a maximum thickness of 16 S.W.G.
7. The elimination of bulge, wave, bend or stretch in sheets using blowlamp or welding torch. The heat treatment of mild steel plate in preparation for shaping.
8. Installation and commissioning of metal fabricated plant and ducting.
9. Estimating production time and costs, and be capable of providing leadership to tradesmen of lower levels.
10. A thorough understanding of all the safety regulations and precautions to be taken for safe working in a sheet metal shop or on site with reference to the current Factories Act.

GAS WELDER Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 Rule, steel 12"
- 1 Chisel, cold flat ¾"
- 1 Square, try 6"
- 1..... Chisel, cross cut ¼"

- 1 pr. . . . Goggles, welding
 - 1 Hammer, ball pein 1½lbs.
 - 1 pr. . . . Gloves, hand
 - 1 Punch, centre 4"
 - 1 set . . . Cleaners, tip
 - 1..... Gauge, fillet
- *Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule to 1/32" or 1 mm.
3. Gas cylinders, their use, and the dangers connected with them.
4. The precautions to be observed in the safe operation of gas welding equipment.
5. The relationship between welding rods, gas pressures, nozzle sizes and flame adjustment.
6. The welding of mild steel sheets and plates of up to 1/8" thickness.
7. Butt and lap welding in mild steel sheets and plates of up to 1/8" thickness.
8. The use of hammer, chisel, files and grindstone in cleaning finished work of excessive deposits and the reasons for their removal.
9. The ability to work to given dimensions, and familiar with standard form of measurement both Imperial and Metric.
10. Operating a cutting torch and the cutting of mild steel of up to 5/16" thickness along a straight edge, or using a simple prepared template manually.
11. The production of a water tight weld in plate of not more than 1/8" thickness; testing for leaks and rectifying if necessary.
12. An understanding of simple properties of ferrous metal.
13. The ability to apply nick and break test and pressure test.
14. Familiar with the general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protective equipment.

GAS WELDER Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Gas Welder, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 pr. Calipers, outside 6"
- 1 pr. . . .Compasses, wing 8"
- 1 pr. Calipers, inside 6"
- 1 pr. . . .Dividers 6"
- 1 Chisel, diamond point
- 1 Scriber
- 1 Screwdriver 8"
- 1..... Spanner, adjustable 10"

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Gas Welder.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. The selection of tools necessary for cutting templates, including dividers, compass and scriber.
3. The welding of mild steel of any gauge over 1/16" and up to 3/4"
4. Vertical, horizontal and overhead welding of mild steel up to 1/16" thickness.
5. The brazing of common non-ferrous metals.
6. The selection of the correct size of nozzle for the cutting of mild steel plate of any thickness up to 2" and the subsequent cutting of such plates.
7. The building up of worn parts on round and flat surfaces.
8. The setting out and preparation of simple templates for cutting, using a simple drawing or sample.
9. The fabrication of an article from a simple drawing, including elementary welding in aluminium.
10. The effects of shrinkage as a result of welding and how to counteract this, and the precautions, including pre-heating, to prevent formation or extension of cracks, or other harmful effects during welding, particularly in castings.
11. The common metals that can be welded or brazed by oxy-acetylene and the correct flux to use with each.
12. The adjustment of torch to give the correct type of flame for various applications of welding, cutting and heating, and the explanation why a particular type of flame is used (for example, the difference between carbonizing, neutral and oxidizing).
13. Understanding symbols of welding commonly used on drawings.
14. Ability to apply bent test and micro-etch test.
15. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

GAS WELDER Tradesman Class I

The candidate must have in his possession all the tools prescribed for Class III and II in the trade of Gas Welder.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II test in the trade of Gas Welder.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. Be able to read engineering drawings of welded structures and fully understand the descriptions and all welding symbols used on drawings.
2. The calculation of quantities of materials to be used for various jobs, e.g. tanks, cylinders, cones, and other similar articles.
3. To determine different types of metal including filler metal, fluxes and the fuel gas to be used.
4. Vertical and overhead welding of ferrous and non-ferrous metals by gas welding.

5. The gas welding procedures and techniques to weld cast iron, stainless steel, aluminium, copper, brass and bronze.
6. The building up of castings by gas welding and building up of worn parts of various materials.
7. The preparation of welding instructions or sketches from manufacturing drawings for lower class tradesmen.
8. The proper technique to separate materials of heavy sections by flame cutting using various machines and aids.
9. To estimate production time and costs, and be capable of providing leadership to tradesmen of lower levels.
10. A thorough understanding of the safety regulations and precautions to be taken for safe working in a welding shop or on site with reference to the current Factories Act.

ELECTRIC ARC WELDER Tradesman Class III

The candidate must have in possession the following *tools:-

<i>Quantity</i>	<i>Item</i>	<i>Quantity</i>	<i>Item</i>
1	Rule, steel	12"
1	Chisel, cold, flat	3/4"
1	Square, try	6"
1	Chisel, cross cut	1/4 "
1	File, flat, rough	12"
1	Punch, centre	4"
1 pr.	Gloves, hand	
1	Hammer, ball pein	1 1/2 lbs.
1	Hammer, chipping.	

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
 2. The reading of and measuring with a rule to 1/16" or 1 mm.
 3. The precautions to be observed in the safe operation of electric welding sets.
 4. The electrodes and the amperages to be used for welding in mild steel and in one other metal.
 5. The preparation of the material for the making of efficient butt, lap and fillet welds in mild steel of between 3/16"-3/8" thickness using the appropriate type and gauge of electrode, leaving finished work clean and free from excessive deposits and slags and the reasons why their removal is essential.
- NOTE:-The test weld will be stopped and restarted with a fresh electrode at least once throughout its length. A sealing run on the reverse side will not be permitted.
6. Determining correct angle of electrode and direction of travel.
 7. The production of watertight weld in plate of not less than 1/8" thickness; testing for leaks and rectifying if necessary,
 8. The depositing of continuous straight run of weld in mild steel, using a complete electrode

without a break in the arc.

9. The ability to work to given dimensions, and be familiar with standard forms of measurement both Imperial and Metric.

10. Ability to apply nick and break test and pressure test.

11. Familiar with the general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protective equipment.

ELECTRIC ARC WELDER Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Electric Arc Welder, the candidate must also be in possession of the following *tools:-

Quantity Item

1 pr. . . . Calipers, outside 6"

1 pr. . . . Compass, wing 8"

1 pr. . . . Calipers, inside 6"

1..... Scriber

1 pr. . . . Dividers 6"

1..... Chisel, diamond point

1 Spanner, adjustable 10"

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Electric Arc Welder.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. The selection of tools necessary for cutting templates, including dividers, compass and scriber.
3. The welding of mild steel of any gauge over 1/16" and up to 3/4"
4. The making of a 3/4" fillet weld applying the minimum number of runs according to gauge of electrode selected.
5. The building up of worn parts on round and flat surfaces.
6. The welding of fabricated work from a simple drawing and, as necessary, making and using templates.
7. The ability to arc weld structural steel, (butt, lap, corner joints. Tee and Vee joints) in horizontal, and vertical position, determining the correct electrode, weaving pattern, amperage, travel, direction and welding speed.
8. Welding in mild steel, bronze, cast iron and one other metal.
9. The effects of shrinkage and warping as a result of arc welding and how to counteract this, including preheating and post heating where necessary.
10. The various types of metal that can be welded by arc process, and suitable types of electrode for each.
11. The reason for buffer layers before hard surfacing.
12. (a) The application of intermittent welding.
(b) Penetration and counter welding.

13. Understanding symbols of welding commonly used on drawings.
14. Knowledge of gauging by arc.
15. The ability to apply bent test and micro-etch test.
16. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

ELECTRIC ARC WELDER
Tradesman Class I

The candidate must have in his possession all the tools prescribed for Class III and II tests for the trade of Electric Arc Welder.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the trade of an Electric Arc Welder.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. Be able to read engineering drawing of welded structure and fully understand the descriptions and symbols of welding used on drawings.
2. The calculation of quantities of materials to be used for various jobs, i.e. tanks, cylinders, cones and others, and to determine electrodes to be consumed for welding.
3. To operate and maintain all kinds of welding equipment, to include rectifiers and transformers and the selection of polarity.
4. The arc welding procedures and techniques to weld cast iron, stainless steel, aluminium, copper, brass and bronze, to include type of electrode, voltage, amperage, the preparation of welding, preheating and other welding techniques.
5. The building up of castings by welding and the building up of worn parts of various ferrous and non-ferrous materials.
6. The repairing of non-ferrous metal by arc welding techniques.
7. The preparation of welding instruction of sketches from manufacturing drawings for lower class tradesmen.
8. The proper techniques to separate materials of heavy section by flame cutting, using various machines and aids.
9. To estimate production time and costs, and be capable of providing leadership to tradesmen of lower levels.
10. A thorough understanding of the safety regulations and precautions to be taken for safe working in a welding shop or on site with reference to the current Factories Act.

GAS AND ELECTRIC WELDER (GENERAL)
Tradesman Class I

The candidate must have in his possession all the tools prescribed for Class III and II tests for either the trade of Gas Welder or Electric Arc Welder.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in either the trade of Gas Welder or Electric Arc Welder.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. Be able to read engineering drawings of welded structures, and fully understand the descriptions and all symbols of welding used on drawings.
2. The calculation of quantities of materials to be used for various jobs, i.e. tanks, cylinders, cones and others, and to determine electrodes to be consumed for welding.
3. Operating and maintaining all kinds of welding equipment, to include rectifiers and transformers.
4. Vertical and overhead welding using oxy-acetylene torch or arc welding equipment.
5. The arc welding procedures and techniques to weld cast iron, stainless steel, aluminium, copper, brass and bronze, to include type of electrode, voltage, amperage, the preparation for welding, preheating and other welding techniques.
6. The proper techniques to separate materials of heavy section by flame cutting.
7. The building up of castings by welding and the building up of worn parts of various materials.
8. The carrying out of simple repairs of non-ferrous metal by arc welding.
9. The preparation of welding instructions of sketches from manufacturing drawings for lower class tradesmen.
10. Estimating production time and costs, and be capable of providing leadership to tradesmen of lower levels.
11. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working in a welding shop or on site with reference to the current Factories Act.

Group C-Furniture Trades

CABINET MAKER Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1..... Apron
- 1 Driver, screw
- 1 Rule, folding
- 1 Bradawl
- 1 Knife, marking
- 1 Plane, smoothing
- 1 Square, try 8"
- 4..... Chisels 1/4" 1/2" 3/4" 1"
- 1 Gauge, marking
- 1 Drill, hand
- 1 Hammer, claw
- 3 Bits, twist 1/8" 3/16" and 1/4"
- 1 Punch, nail
- 1 Bit, countersink
- 1 Mallet
- 1 Saw, tenon
- 1 Block, sanding
- 1 Stone, oil

1..... Can, oil

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained a basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The identification and use of the various types of nails and screws.
3. The reading of and measuring with a rule to 1 1/16" or 1 mm.
4. The fixing of simple pieces of hardware.
5. The construction of the following joints:-
butt, rebate, through housing, stopped housing, through dovetail, lapped dovetail, mortise and tenon, hollow butt widening, dowelled widening.
6. The construction and fitting of a traditional type drawer.
7. The construction and fitting of a simple type of doors.
8. The setting up and use with safety, the following woodworking machines:-
radial arm saw, rip and cross cut saws, surface planer, thicknesser, disc, bobbin and narrow belt sanders, handsaw, vertical and horizontal borers.
9. The proper use with safety, of electric and air operated portable drills, screw drivers and sanders.
10. Understanding of general factory safety.
11. The interpretation of simple drawings.
12. Freehand sketching in the following projections:
isometric, oblique and orthographic.
13. The carrying out of simple calculations of linear and surface measurement of materials.
14. Timber, growth, milling defects and seasoning.
15. The preparation and proper use of P.V.A. woodworking adhesive.
16. The use and application of abrasive papers.
17. Familiar with the general safety rules in the use of tools and equipment related to the trade, to include electrical shock and use of protective equipment.

CABINET MAKER Tradesman Class II

In addition to possessing the tools specified for Class III test in the trade of Cabinet Maker, the candidate must also be in the possession of the following "*tools:-

Quantity Item

- 1 Tape, flexible 10'
- 1..... Plane, jack
- 1 Square, combination
- 2 Chisels Vs" and I 'A"
- 1 Hammer, brad
- 1 Rounder, dowel
- 1 Spokeshave
- 1..... Rasp, wood
- 1..... Saw, dovetail
- 1 Brace, ratchet

- 1 Block, sanding shaped
- 4 Bits, twist ¼" 3/8" ½"
- 1 Screwdriver, ratchet and 1"

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Cabinet Maker.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools, listed above.
2. The identification and fitting of various types of hinges, catches and locks.
3. The construction of more advanced joints than those required for Class III Trade Test.
4. The machining of various types of constructional joints, i.e. corner, angle and widening.
5. The construction and fitting of the following types of drawers: centre run, false front, concealed rails.
6. The fitting of sliding glass and plywood doors.
7. Working with sheet materials to include:-
plywood, chipboard and laminated plastics.
8. The banding of edges with laminated plastics and/or veneers.
9. The production of a curved component by cutting from the solid or using inserts.
10. The construction of simple articles of furniture without assistance.
11. The selection and fitting of the correct type of circular sawblade for the job in hand.
12. The jointing/stripping of a sawblade before removing it from the sawbench.
13. The use of a wide belt sander.
14. Removing and replacing abrasive belts and papers from the sanding machines listed in the Class III Trade Test.
15. Removing, folding and replacing handsaw blades.
16. Operating pneumatic (air operated) nailers and staplers.
17. The use of all types of portable electric tools required in cabinet making.
18. The reading of imperial or metric scaled drawings and the making of sketches of articles of furniture.
19. Calculating the volume of timber used in an article of furniture allowing for wastage.
20. An introduction to:
 - (a) The method of determining the moisture content in timber.
 - (b) Timber destroying insects and their effect on furniture timbers.
21. The use of contact bond and synthetic resin adhesives.
22. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

CABINET MAKER Tradesman Class I

In addition to possessing the tools specified for the Class III and II tests in the trade of Cabinet Maker, the candidate must also be in possession of the following *tools:-

- Quantity Item*
- 1 Square, mitre

- 1 Plane, rebate
- 1 Gauge, cutting
- 1 Plane, trying
- 1..... Screwdriver, spiral ratchet
- 2 Chisels 1/8" and 5/8"
- 1 Drill, push
- 1 Saw, panel

*Equivalent tools in metric may be used.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the trade of Cabinet Maker.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, care, used and maintenance of the tools listed above.
2. Identifying and fitting special types of hinges, locks, mechanical actions etc.
3. The construction of joints to include:
mason mitre, secret mitre dovetail, tongued mitre, rebated mitre.
4. The construction and fitting of drawers using patent types of drawer guiding systems.
5. The construction and fitting of moulded panel and tambour type doors.
6. Working with veneers and veneered particle board.
7. The production of curved components by lamination or saw kerf bending.
8. The construction of all types of furniture.
9. The designing, drawing and preparation of cutting lists for articles o furniture to the customers requirements.
10. The taking-off and calculation of the material quantities from drawings and cutting lists.
11. Timber gradings and classifications and the suitability of various species of timber for furniture.
12. Capable of providing leadership to tradesmen of lower levels.
13. Thorough understanding of all the safety regulations and the safety precautions to be observed for safe working in a cabinet making shop with reference to the current Factories Act.

WOOD MACHINIST Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 Apron or overalls
- 1 Bevel, sliding
- 1 Rule, folding
- 1 Spanner, adjustable 8"
- 1 Knife, marking -10"
- 1 Square, try 8"
- 1 pr. .. Pliers
- 1 Screwdriver, fixed
- 1 Hammer, claw

1..... Square, combination

* Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained a basic knowledge of the following:-

1. The identification, care and use of the tools listed above.
2. The reading of and measuring with a folding rule to 1/16 of an inch, or 1 mm.
3. The machining of joints to include:
rebate, through housing, stopped housing, plain mitre, mortise and tenon, bridle, halving, dowel, hollow butt widening, dowelled widening, tongue and trench.
4. The use of a radial saw for cross cutting and simple angles and the selection and replacement of sawblade.
5. The use of both rip and crosscut saws, the selection and fitting of the correct blades and the adjustment of all the guards, fences and stops to their correct working position.
6. The setting-up and use, in accordance with the safety regulations, of surface planers-thicknessers-combination planers.
7. The detection of defective timber, grain directions and most suitable surface to be planed.
8. The setting up and use of a handsaw for simple operations.
9. The use of both vertical and horizontal boring machines.
10. The selection and use of the correct type of sanding machine for the job in hand include disc, bobbin, and narrow belt.
11. The construction of hollow and solid core doors and traditional type drawers and the ability to machine the component parts.
12. The interpretation of simple drawings and the sketching of machine parts and safety devices.
13. The carrying out of simple calculations of linear and surface measurement or materials.
14. Elementary knowledge of timber, growth, milling, defects and seasoning.
15. The preparation and proper use of P.V.A. woodworking adhesives.
16. The preparation of timber for further machining by using the machines mentioned in this syllabus.
17. Familiar with the general safety rules in the use of tools and equipment related to the trade, to include electrical shock and use of protective equipment.

WOOD MACHINIST Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Wood Machinist, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 Tape, flexible 10"
- 1 Stone, circular slip
- 1 Rule, steel
- 1.... Stone, coil 8" x 2" x 1"
- 1 pr. . . . Vice grips
- 1 Stone, tapered slip
- 1I set . . . Spanners, open end

- 1 Can, oil
- 1 Gauge, knife setting
- 1 File, mill 10"
- 1 set . . . Saw (preferably gate type)
- 1 File, three cornered 8"
- 1 File, cleaner

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for Tradesmen Class III in the trade of Wood Machinist.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. The machining of joints to include:-
stopped rebate, tongued and rebate, loose tongue mitre, long and short shoulder mortise and tenon, box pin, rebated widening, loose tongue widening, tongue and groove widening, reversible T. & G. widening.
3. The identification, fitting and use of dado saws and trenching heads, on a radial arm saw and also the setting and use of this saw for cutting compound angles.
4. The carrying out with safety, those operations that are required to be done on a rip or crosscut saw bench including jointing/stripping a sawblade.
5. The carrying out with safety, those operation that are required to be done on planing machines (excluding 4 siders) including the honing and replacing of worn or damaged cutters.
6. Removing, folding and replacing handsaw blades and the cutting of simple and compound curves.
7. The sharpening of all types of wood and metal boring drills.
8. The adjustment and use of all types of sanding machines including the changing of abrasive papers and jointing up of endless abrasive belts.
9. Operating pre-set up machines such as vertical spindle moulders, routers.
10. The carrying out of greasing and general maintenance of the woodworking machines, mentioned in Class III and II Trade Tests.
11. An understanding of flexible and moulded abrasives.
12. The production of curved components by cutting from the solid or by using insert (routing).
13. The working and construction of sliding doors, framed doors, centre run drawers and false front drawers, and the machining of component parts.
14. The machining of component parts for furniture using the woodworking machinery mentioned in Class III and II Trade Tests.
15. The reading of imperial or metric scaled drawings and the production of sketches of articles of furniture.
16. Calculating volume of timber used in an article of furniture allowing for wastage, machine belt lengths and pulley sizes.
17. An introduction to:
 - (a) The methods of determining the moisture content in timber
 - (b) Timber destroying insects and their effect on furniture timbers.
17. The machining of sheet materials to include:-

plywood, hardboard; chipboard, laminated plastic, and their effects on the cutting tools.

19. The use of contact bond and synthetic resin adhesives and their effects on the cutting tools.

20. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

WOOD MACHINIST Tradesman Class I

The candidate must have in his possession all the tools prescribed for Class III and II tests for the trade of Wood Machinist.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the trade of Wood Machinist.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. Thorough understanding of the woodworking machinery regulations and the safety precautions to be observed for safe working.
2. The machining of all types of joints that are used in furniture construction.
3. The machining of all types of components required for furniture construction.
4. An understanding of the angles and shapes of circular saw teeth and the ability to gullet, set and sharpen a sawblade by hand or automatic machine.
5. The adjustment of feed rollers, chipbreakers and pressure bars on a thicknesser including the adjustment and use of a knife grinding attachment.
6. The jointing of a handsaw blade to form an endless band including their sharpening (filing) and setting.
9. Operating pre-set up machines such as vertical spindle moulders, routers.
10. The carrying out of greasing and general maintenance of the woodworking machines, mentioned in Class III and II Trade Tests.
11. An understanding of flexible and moulded abrasives.
12. The production of curved components by cutting from the solid or by using insert (routing).
13. The working and construction of sliding doors, framed doors, centre run drawers and false front drawers, and the machining of component parts.
14. The machining of component parts for furniture using the woodworking machinery mentioned in Class III and II Trade Tests.
15. The reading of imperial or metric scaled drawings and the production of sketches of articles of furniture.
16. Calculating volume of timber used in an article of furniture allowing for wastage, machine belt lengths and pulley sizes.
17. An introduction to:
 - (a) The methods of determining the moisture content in timber
 - (b) Timber destroying insects and their effect on furniture timbers.
18. The machining of sheet materials to include:-

plywood, hardboard; chipboard, laminated plastic, and their effects on the cutting tools.
19. The use of contact bond and synthetic resin adhesives and their effects on the cutting tools.
20. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

WOOD MACHINIST Tradesman Class I

The candidate must have in his possession all the tools prescribed for Class III and II tests for the trade of Wood Machinist.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the trade of Wood Machinist.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. Thorough understanding of the woodworking machinery regulations and the safety precautions to be observed for safe working.
2. The machining of all types of joints that are used in furniture construction.
3. The machining of all types of components required for furniture construction.
4. An understanding of the angles and shapes of circular saw teeth and the ability to gullet, set and sharpen a sawblade by hand or automatic machine.
5. The adjustment of feed rollers, chipbreakers and pressure bars on a thicknesser including the adjustment and use of a knife grinding attachment.
6. The jointing of a handsaw blade to form an endless band including their sharpening (filing) and setting.
7. The setting-up, making and use of patterns/jigs for use in conjunction with a spindle moulder.
8. The setting-up, making and use of patterns/jigs for use on high speed router.
9. The making and use of safety devices, patterns/jigs as required for any type of woodworking machine.
10. The honing and grinding of straight, shaped and solid profile machine and router type cutters.
11. The development of the true shape of a moulding cutter.
12. The fitting and lining up of pulleys and the jointing of flat belts, including the application of the required strain to all types of belts used on woodworking machines.
13. The preparation of cutting lists and full size set-outs from drawings and sketches.
14. The carrying out of any calculation that may be required regarding machines and materials.
15. Timber grading classifications suitability of various species for furniture and the effect of treated timber on machine knives.
16. Capable of providing leadership to tradesmen of lower levels.
17. Thorough understanding of all the safety regulations and the safety precautions to be observed for safe working in a woodworking shop with reference to the current Factories Act.

UPHOLSTERER Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 Apron
- 1 Screwdriver, large
- 1 Rule, folding
- 1 Knife, for cutting foam

- 1 Stick, yard
- 1 pr. . . . Scissors
- 1 Hammer, tack (Magnetic)
- 2 doz. . . Skewers
- 1..... Hammer, claw

*Equivalent tools in metric may be used

The candidate will be required to show by practical demonstration and an oral/written test that he had acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The reading of and measuring with a rule to 1/16 of an inch or 1 mm.
3. The ability to work to given dimensions and be familiar with standard forms of measurement both Imperial and Metric.
4. The identification and use of various types of nails, tacks, staples and screws.
5. The identification and fitting of various types of springs and webbings.
6. The identification and cutting of foam rubber and plastic.
7. The identification and fitting of eye-lets of various sizes.
8. The upholstering of plain stools and chairs.
9. Elementary knowledge of the various types of timber.
11. An understanding of contact bond adhesives suitable for foam rubbers/plastics/vinyls.
12. The application of hand stitching (invisible stitch).
13. The covering of spring units.
14. The patching of minor torn covers to include tarpaulin patching.
15. The use of pneumatic (air-operated) nailers, staplers and drills.
16. The interpretation of simple drawings.
17. Freehand sketching in isometric, oblique and orthographic projections.
18. The working of simple calculations involving perimeter and surface measurement of materials.
19. Familiar with the general safety rules in the use of tools and equipment related to the trade.

UPHOLSTERER Tradesman Class II

In addition to possessing the tools specified for Class III test in the trade of Upholsterer, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1..... Brace and set of bits
- 1..... Puller, cutter
- 3..... Screwdrivers (Phillips type)
- 1..... Needle, curved
- 1 pr.... Pliers
- 1..... Needle, tufting 6"
- 1 pr.... Pliers, hog-ring
- 1..... Needle, packing
- 1..... Puller, leather

- 1..... Needle, sail
- 1..... Tape, measuring.

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Upholsterer.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above.
2. The making of-calico cushions using hand stitching.
3. The making of loose cushions either piped or plain edged using zips or hand stitching.
4. The fitting and fixing of springs, hessian, webbing and foam rubber/plastic in position.
5. Securing materials to the finished frame (i.e. cover the above).
6. The making and fitting of buttons.
7. The identification and application of plywood, hardboard and cardboard.
8. The making of various types of mattresses.
9. The use of all types of portable electric tools required in the trade.
10. An understanding of the types of threads used in the trade.
11. An understanding of the types of materials used in the trade.
12. The working of trade calculations involving quantity of materials used in an article of furniture allowing for wastage.
13. The reading of imperial or metric scale drawings and the production of sketches of upholstered articles of furniture.
14. The repairing of sails or the making and fitting of seat covers.
15. The repairing and fixing of seat broken springs and stay wires.
16. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

UPHOLSTERER Tradesman Class I

In addition to possessing the tools specified for the Class III and II tests in the trade of Upholsterer, the candidate must also be in possession of all other tools that may be required to successfully carry-out his work at his level.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Upholsterer.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade including the following:-

1. The identification, care, use and maintenance of all the tools used in the trade.
2. The identification and fitting of all types of mechanical actions used on upholstered furniture.
3. The matching of fabrics.
4. The carrying out and making of canvas awnings, tents, canopies, tarpaulins, blinds, curtains and loose covers.
5. The upholstering of all types of furniture, car and bus seats and loose squabs.

6. The repairing or recovering of articles with damaged or worn upholstery.
7. Types of pleats, tucks and folds used in upholstery.
8. The machining and cutting of all types of upholstery fabrics and materials.
9. The ordering of all types of material and equipment required in the trade.
10. The stock taking of materials in the store.
11. The designing, drawing, and the preparation of cutting lists upholstered articles of furniture to a customers requirement.
12. Taking-off and calculating material quantities from drawings and cutting lists.
13. The working of any calculation that may be required in the trade.
14. The designing and making of flags of any kind with sizes and drawings given.
15. The making of sails in different sizes.
16. The laying of floor carpets.
17. The planning and organisation of upholstery work, and be capable of providing leadership to tradesmen of lower levels.
18. A thorough understanding of all the safety regulations and the safety precautions to be observed for safe working in an upholstery shop with reference to the current Factories Act.

Group D-Mechanical Trades

FITTER MACHINIST Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 ... Chisel, cold, flat ¾"
- 1.... Screwdriver 3"-6"
- 1 ... Chisel, cross cut 3/8"-5/8"
- 1.... Screwdriver 8"-12"
- 1 ... Chisel, round nose ¾"-1/4"
- 1.... Scriber
- 1 pr... Dividers-6"
- 1 pr... Snips, tinman's 10"
- 1 pr... Calipers, inside 6"
- 1.... Spanner, adjustable 10"
- 1 pr... Calipers, outside 6"
- 1 set.. Spanners, open-end BSW or UNF ¼"-1"
- 1 Hammer, ball pein 1 ½ lb.
- 1.... File, half round 2nd cut 10"
- 1 pr... Pliers, combination 8"
- 1.... File, flat, rough 12"
- 1 Punch, centre 4"-4 ½"
- 1.... File, flat, bastard 12"
- 1 ... Rule, steel 12"
- 1.... File, flat, 2nd cut, 10"
- 1 ... Saw, hack
- 1.... File, flat, smooth 10"
- 1.... File, flat, smooth 8"

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, care, use and maintenance of the tools listed above.
2. The use of basic measuring and marking out equipment to include steel rule, dividers, calipers, and marking mediums. Able to execute measurements with the rule to an accuracy of $\pm 1/64$ " (± 0.5 mm.) and work to such limits.
3. The selection of files suitable for any given work, involving straight edges and flat surfaces.
4. The drilling and tapping of holes (drill size given) and the use of taps and dies.
5. The fabrication of simple parts from sketch or simple drawings to given dimensions.
6. The fabrication of simple tools using hand forging only, to include hardening and tempering, and the use of oxide film colour during process as guide only.
7. Types of chisels, their applications and proper sharpening.
8. An understanding of methods used in keyways cutting in shafts and pulleys and in the fitting of keys.
9. Types of hacksaws and uses for sawing of mild steel plate (thick and thin) to given line or contour-types of blades and their application.
10. Simple soldering and operations in soft solder and the use and purpose of fluxes.
11. The correct use, care and maintenance of drilling and sawing machines and presses.
Types of drilling machines.
12. The centre lathe, its accessories and equipment to include chucks, face late, lathe carriers; the care and maintenance of the machine and he safety precautions to be observed in its operation.
13. The application of basic mounting accessories and clamps to be used with lathes, drilling and sawing machines. The setting up and methods of work holding for these machines.
14. Knowing the elements how to execute the layout of the workpiece on the machines mentioned in paragraphs (11) and (12) above, to include setting work encentric with spindle on lathes, levelling work for drilling and setting up to marked outlines, within limits of $\pm 1/64$ " (± 0.5 mm.)
15. Have a general knowledge about the machines mentioned in paragraphs (11) and (12) above, to include:
 - identification and name of main components and assemblies;
 - starting;
 - setting to cutting speed;
 - stopping;
 - proper lubrication;
 - types and purpose of lubricants and coolants;
 - protection against hazards (changing speed, protection against sudden impact, overload).
16. Understand the meaning of tolerance, limits of size, clearance and interference fits.
17. Undertaking simple jobs, to include centring, turning and facing cylindrical shaft, cutting, centring and drilling, chamfering and counterboring holes, parting-off and parallel boring.
Types and purposes of steady rests.
18. An introduction to the sharpening of simple lathe cutting tools.
19. An understanding of the terms "rake" and "clearance" angles and their purposes. Basic angles for turning mild steel, cast iron and aluminium.

20. The use and purpose of lubricants and coolants.
21. A good appreciation of the right speeds and feeds for different materials (cast iron, mild steel, copper and aluminium) when roughing or machining for finish.
22. The carrying out of routine maintenance on the machines.
23. Knowing the elements of reading simple working drawing, and able to produce a simple workpiece according to sketch.
24. Familiar with the safety rules in the use of tools and other equipment related to the trade, to include electrical shock and protective equipment.

FITTER MACHINIST
Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Fitter machinist, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 set . Allen, wrenches 1/16"- 1/4"
- 1 File, square 2nd cut 8"
- 1 Hammer, ball pein, 1/2 lb.
- 1 File, triangular, 2nd cut 8"
- 1 set . . . Spanners, ring, BSW or UNF 1/4"-1"
- 1..... Scraper, curved 8"
- 1 Wrench, Stillson 12"
- 1 Scraper, flat 8"
- 1..... File, round, 2nd cut 4"
- 1..... Scraper, 3 square 6"
- 1 set . Gauges, feeler 4"

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Fitter Machinist.

He will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above and of surface plates and the marking out table and its accessories to include vee blocks, parallel slips and scribing blocks.
2. Marking off and working to a given drawing or template within limits of ± 0.002 " (0.05 mm), using advanced measuring instruments, to include vernier calipers, dial gauges, micrometers, height and depth gauges.
3. The removal, dismantling, cleaning and reassembling of elements of simple machinery, including gear box elements.
4. Filing and scraping a flat surface (minimum of 16 sq. in.) and filing and scraping of curved surfaces including the mating of two surfaces to a tolerance ± 0.002 " (0.05 mm).
5. Alignment of bearings, couplings, plummer blocks and machinery.
6. Types and application of lubricants. The knowledge of the different methods of lubrication,

- to include grease cup, oil ring, wick, pressure (elementary).
7. Determining cutting speed, depth of cut and feed of standard materials without overloading the centre lathe.
 8. The appropriate tool rakes and angles, and the cutting lubricants for turning work on metals in common use.
 9. The grinding of commonly used carbon and high-speed tools to correct shapes.
 10. The carrying out of machining operations to include turning and facing of stepped shafts, set-up and machine in four jaw chuck. Producing internal, external and square threads, turning holes, boring, counterboring and tapping holes on drilling machines, including the use of boring head and tapping chuck. Milling steps and grooves.
 11. Setting up for external and internal taper turning, using tail stock, compound rest and taper turning attachment.
 12. The ability to read and work according to manufacturing drawings and to be able to produce working sketches.
 13. The calculation and setting of change wheels in screw cutting operations, Imperial or Metric threads.
 14. Simple soldering operations in hard solder, and the proper use and purpose of fluxes.
 15. Elementary heat treatment of steel to include hardening, tempering case hardening and annealing.
 16. The identification of metals in common use and some examples of their application and knowledge of their general properties.
 17. Common thread forms and tapping sizes including some knowledge of metric threads. Proficiency in the use of all hand taps and dies.
 18. Application of workshop calculations in fitting and machining work.
 19. The efficient maintenance of all equipment in common use in a fitting/machine shop (excluding electrical equipment).
 20. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

FITTER MACHINIST Tradesman Class I

In addition to possessing the tools specified for the Class III and Class II tests in the trade of Fitter Machinist, the candidate must also be in possession of the following *tools:-

<i>Quantity</i>	<i>Item</i>	<i>Quantity</i>	<i>Item</i>
1 set . . .	Punches, pin	1/16" - 1/4"	
1 set . . .	Screwdriver, Phillips	Nos. 1 to 4	
1 set . . .	Spanners, box, BSW, UNF or BSF	1/4" - 1"	

*Equivalent tools in metric may be used.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the trade of Fitter Machinist.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade including the following:-

1. The identification, care use and maintenance of the tools listed above and of all precision gauges in common use.

2. Working to a fully dimensioned drawing and marking out, within a tolerance of not less than ± 0.001 " (0.02 mm) with the micrometer type instruments and ± 0.002 " (0.05 mm) with the vernier type instruments.
3. The repairing of damaged machine parts and the detection of faulty metals where the necessary facilities exist.
4. The fitting, scraping and removing of bearings; methods and techniques of fitting plain journal bearings and bearings with rolling contact to include ball, roller, needle, taper-roller and thrust bearings, with special emphasis on the proper fit.
5. The dismantling, repairing, reassembling and testing of machinery.
6. Reasons and procedure for hardening and tempering tools to cope with various metals and conditions.
7. Physical and mechanical properties of ferrous and non ferrous metals.
8. The properties and use of tungsten carbide-tipped and other cutting tools.
9. Marking out techniques to align, set out and fix all types of rough or machined workpieces on the machine table, in fixture, in vise or on other mounting equipment in proper and efficient way.
10. Good practical experience in reading manufacturing drawing (blueprints) and must understand all the symbols and instructions of drawings. Be able to break down into simple sketches completed assembly drawings.
11. The use of the following work holding methods on the lathe-
 - (a) mounting work on mandril;
 - (b) mounting work in collet chuck;
 - (c) supporting work in the fixed and travelling steady;
 - (d) mounting and balancing work in face plate;
 - (e) use of simple jigs and fixtures.
12. The undertaking of the following types of lathework:-
 - (a) producing shaft with steps, cone and screw thread;
 - (b) machining grooves and undercuts;
 - (c) turning radii and chamferring;
 - (d) eccentric turning;
 - (e) boring, counterboring, countersinking and spot facing;
 - (f) reaming;
 - (g) knurling.
13. Estimating quantities, production times and cost, and capable of providing leadership to tradesmen of lower levels.
14. Layout of fitting/machine shop, and have knowledge of the sequence of operations, and machinery and equipment employed.
15. Must be fully conversant with the safety regulations including the current Factories Act pertaining to general fitting and machining work.

The candidate who is also required by his employer to carry out work on the shaping and milling machines, will be expected to answer a set of alternative questions and practical test in any of the following:-

1. The correct use, care and maintenance of shaping and milling machines to include identification and name of main components and assemblies, starting setting, stopping, proper lubrication and protection against hazards.
2. The shaping of:
 - (a) flat surfaces;
 - (b) vertical surfaces;

- (c) internal flat surface;
- (d) angular surfaces.
- 3. The cutting of keyways.
- 4. The cutting of dovetails.
- 5. The use of the dividing head or rotary table for machining external and internal surfaces.
- 6. The milling of:
 - (a) flat surfaces;
 - (b) angular surfaces keyways;
 - (c) tee slots and dovetails, using special cutter.
- 7. The cutting of spur gear using dividing head and special form milling cutters.

Group E-Automotive Trades

MOTOR VEHICLE MECHANIC Tradesman Class III

The candidate must have in his possession the following *tools:-

Quantity Item

- 1 Hammer, ball pein ½ lb
- 1 pr. . . . Pliers, combination 8"
- 1 Rule, steel 12" Imperial
- 1 Screwdriver 8" x 3/8" and metric graduated square
- 1 set . . . Spanners, open-end
- 1 set . . . Screwdriver, phillips 6 mm-22 mm or B.S. Nos. 1 to 4 equivalent
- 1. pr. . Glasses, safety
- 1 set . . Spanners, ring 6 mm-22 mm or B.S. equivalent
- 1 Chisel, cold 8" long
- 1 Hammer, ball pein ¾" octagon ¾ oz.

*Equivalent tools in metric may be used.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The particular importance of cleanliness to this trade, the need to safeguard the customer's property and in particular to care for and protect the paintwork and upholstery of the vehicle on which the candidate is required to work.
2. The identification care, use and maintenance of the tools listed above.
3. The light servicing of vehicles including oiling and greasing; the replacement of oil filters; replenishing oil in axles; gear boxes and engines; topping up batteries; tyre inflation and repair; the correct methods of jacking up vehicles; general light maintenance work. The candidate should be able to work from a simple greasing and maintenance chart. The proper use of cleaners, detergents and cleaning equipment. Importance of regular lubrication, servicing and maintenance.
4. The dismantling and assembling of mechanical petrol pumps and carburettors including adjustment of carburettors.

5. Removing and replacing silencers and manifolds, batteries, ignition coils, plugs, lamps, lenses, bulbs, wiper arms and/or blades.
6. Removing and refitting radiators and oil pans.
7. Removing generators and distributors from engines.
8. The testing, adjusting and fitting of spark plugs.
9. Installing safety belts and mirrors.
10. Dismantling brake linings including relining.
11. Removing, installing and bleeding shock absorbers.
12. The operating principles of the petrol engine commonly used in motor vehicles. The layout of the various components of vehicles in common use, to include types, construction, arrangements with their advantages and disadvantages.
13. The engine cooling and lubricating systems.
14. The operating principles of the transmission system, brakes, steering, clutches, suspension, tyres, chassis and differentials.
15. The application of Metric and Imperial linear dimensions.
16. Familiar with the general safety rules in the use of tools and other equipment related to the trade, to include electrical shock and use of protective equipment.

MOTOR VEHICLE MECHANIC Tradesman Class II

In addition to possessing the tools specified for the Class III test in the trade of Motor Vehicle Mechanic, the candidate must also be in possession of the following *tools:-

Quantity Item

- 1 Gauges, feeler
- 1 set ... Pin punches 1/16-1/14"
- 1 Saw, hack
- 1 Spanner, crescent type 10"
- 1 Spanners A/F, half moon
- 1 Spanner, plug 18 mm ring 1/2"-9/16" and 14 mm. and 9/16"-5/8"
- 1 Spanner, socket combination 8 mm 22 mm or B.S. equivalent.
- 1 Punch, centre 4 1/2 " x 3/4"
- 1 set ... Spanners, ignition dia. x 1/8" 7/32"-5/16"
- 1 pr... Cutters, diagonal angle 8" 8" x 2"
- 1 pr.... Stone, oil (combination)
- 1 Hammer, brad 3 1/2 oz.
- 1 pr... Pliers, self grip 10"
- 1 Hammer, hide faced
- 1 Calipers, outside 6"
- 1 Can, oil, metal spout 1/2 pint capacity
- 1 Screwdriver 3"
- 1 Screwdriver 6"
- 1 Pliers, taper nose 6"
- 1 Calipers, inside.

*Equivalent tools in metric may be used.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in

the trade of Motor Vehicle Mechanic.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, care, use and maintenance of the tools listed above and other equipment of the trade.
2. Replacing engines in vehicles.
3. The overhauling and reconditioning of petrol engines.
4. The overhauling of generators, starters, motor assemblies and coil ignition systems.
5. The tuning of petrol engines, including twin carburettors (single barrel).
6. Reconditioning valve systems, fuel systems, lubrication systems and cooling systems (excluding radiators).
7. The overhauling of single-plate and multi-plate clutches, syncromesh gear boxes, propeller shaft assemblies and differentials.
8. Removing and replacing rear axle assemblies, 4-wheel drive gear boxes, transfer boxes and automatic gear boxes in vehicles.
9. The adjusting of fan belts and mechanical type of regulators.
10. The overhauling of the following motor vehicle components: brake systems, except power brakes; steering gear systems, except power steering; king pin assemblies and adjusting wheel alignments; suspension systems and wheels including balancing of wheels.
11. Checking and adjusting headlight beams.
12. The overhauling of diesel engines.
13. Replacing and timing diesel fuel injection pumps.
14. Locating and replacing faulty injectors.
15. The operating principles of the diesel engine and the fuel injection system commonly used in road vehicles.
16. The operating principles and testing of electrical equipment to include generators, starters, distributors, coils and battery.
17. The reading of workshop service manuals and spare parts catalogue.
18. Application of simple motor vehicle calculations.
19. An understanding of the general factory safety, plus a knowledge of the procedures when an accident occurs.

MOTOR VEHICLE MECHANIC Tradesman Class I

In addition to possessing the tools specified for the Class III and Class II tests in the trade of Motor Vehicle Mechanic, the candidate must also be in possession of the following tools:-*

Quantity Item

- 1 set . . . Screwdrivers, off-set
- 1 set . . . Spanners, double-(4) ended, 7 mm-23 mm or B.S. equivalent
- 1 Screwdriver 12"
- 1 File, half round 8"
- 1 File, flat 8"
- 1..... Calipers, 0"-4" Imperial and Metric Graduated.
- 2 File, handles, plastic
- 1 Drift, copper 9" x %" dia.

*Equivalent tools in metric may be used.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the trade of Motor Vehicle Mechanic.

For a Tradesman Class I test the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, care, use and maintenance of the tools listed above and of automotive testing equipment.
2. The reading of schematic diagrams and drawings used in the various systems of motor vehicle.
3. The techniques employed in diagnosing all common faults to mechanical and related equipment of vehicle and understand the remedial action to be taken.
4. Estimating duration of repairs and pricing jobs, and be capable of providing leadership to tradesmen of lower levels.
5. A thorough understanding of all the safety regulations and the safety protections to be observed for safe working in a motor vehicle repair shop with special reference to the current Factories Act.

In addition to the above, the candidate must also choose any six from the following thirteen optional topics:-

Engine:-

1. Petrol engines and accessories (car or light vehicles)
2. Two stroke engines (motor or outboard)

Transmissions:-

3. Syncromesh and overdrive units, clutches, transfer cases universal joints.
4. Automatic transmissions.
5. Rear axle assemblies.

Suspension Systems:-

6. Power steering, wheel alignment, tyres, rims.
7. Suspension types and chassis alignment.

Brake Systems:-

8. Vacuum brakes, air hydraulic brakes and retarders.

Diesel:-

9. Diesel room operator.
10. Diesel engines and accessories.

Electrical:-

11. Ignition and lighting systems.
12. Charging and starting systems.
13. Accessory systems.

Group F-Printing Trades
(Substituted by Order 5th October, 1977)

LETTERPRESS MACHINIST
Tradesman Class III

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be able to read and speak English

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class III test.
2. Basic printing terms.
3. The point system of measurement. General use and application.
4. The principles involved in the three main printing processes.
5. Brief description of paper-kinds and outline of ISO sizes.
6. Brief description of ink-manufacture; ingredients.
7. Brief description of imposition-simple examples.
8. General machine maintenance.
9. Types and care of rollers.
10. Kinds of type to include intertype; monotype, and foundry type.
11. Platen machine working-maintenance, adjustments, control of inking and impression. Locking up formes. Appropriate sequence of make- ready operations, make-ready of type formes and hand-feeding.
12. Cylinder machine working-oiling, cleaning, maintenance.
13. Positioning and securing formes on machine bed, the importance of the pitch. Hand feeding.
14. Setting rollers and ink duct.
15. Grip and lay system, lay marking.
16. Familiar with the general safety rules in the use of tools and equipment related to the trade, to include the correct use of machine guards and safety devices.

LETTERPRESS MACHINIST **Tradesman Class II**

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Letterpress Machinist.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test-

1. The identification, use, care and maintenance of the tools and equipment required for Class II test.
2. Outline of the main types of machines and equipment used in the machine room.
3. Characteristics and suitability of paper.
4. General principle of imposition, simple imposition scheme.
5. Marginal and imposition terms.
6. Further knowledge of printing terms.
7. Knowledge of colours.
8. Suitability of ink to paper.
9. Platen machine working-make-ready of formes containing line and half-tone blocks;

operation and adjustment of automatic platen machine.

10. Cylinder machine working-make ready and general management of machine. Regulating of duct, setting the rollers and cylinder brush and making other necessary adjustments.

11. Preparation and positioning of hand-cut overlays and interlays.

12. Use of type-high gauges.

13. Use of duplicate plates.

14. Correct cylinder packing for various classes of work.

15. Method of drying ink and adapting ink to various grades of paper.

16. Preparing paper for printing.

17. Use of dry and wet ink set off sprays.

18. Mixing and matching of colours.

19. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

LETTERPRESS MACHINIST Tradesman Class I

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Letterpress Machinist.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class I test.

2. More advanced schemes of imposition.

3. Brief description of colour scheme and charts.

4. Outline of the work and responsibilities of other production departments. Necessity for inter-departmental co-operation.

5. Effects of humidity on how to distinguish grain direction.

6. The principles of the rotary machine.

7. Estimating-quantities of paper and ink, black and coloured inks allowance for spoilage, daily work and job docket.

8. Platen machine working causes and remedies of common difficulties. Limitation of the platen machine. Use of numbering boxes; perforating and ruling.

9. Ink mixing and matching. The use of driers and reducers. Causes and remedies of printing defects.

10. The care and storage of rollers.

11. Make-ready and production of four colour process work.

12. Storage and handling of paper.

13. Colour guides and control during printing.

14. Laying, lining-up and mounting plates.

15. Conditions required for printing from woodcuts, linocuts, plastic, rubber and metal plates.

16. Cutting, creasing (including cartons) embossing etc.

17. To estimate production time and costs, and be capable of providing leadership to tradesmen of lower levels.

18. A thorough understanding of all the safety regulations and safety precautions to be

observed for safe working in a printing shop with reference to the current Factories Act and Regulations made under the Act.

LITHOGRAPHIC OFFSET MACHINIST **Tradesman Class III**

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be able to read and speak English.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class III test.
2. Principles of lithography.
3. The principle involved in the three main printing processes.
4. Brief description of paper including ISO sizes and kinds
5. Brief description of ink-manufacture, ingredients.
6. General machine maintenance (schedule maintenance).
7. Types and care of rollers.
8. Single colour offset machines; their principles, design and construction.
9. The setting of dampening and inking rollers.
10. Basic maintenance and setting of automatic feeders.
11. Outline of the manufacture of paper and board.
12. The use and effects of certain ink additives such as reducers and driers.
13. Management of surface and deep-etch plates.
14. The use of plate chemicals such as gum, washout solutions and desensitizing etches.
15. Systematic make-ready procedures for monochrome work.
16. Basic Lithographic Offset terms.
17. Familiar with the general safety rules in the use of tools and equipment related to the trade, to include the correct use of machine guards and safety devices.

LITHOGRAPHIC OFFSET MACHINIST **Tradesman Class II**

The employer or training institution will be expected to provide the necessary tools and equipment to the candidates when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Lithographic Offset Machinist.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class II test.
2. Outline of the main types of machines and equipment used in the lithographic printing industry.
3. Characteristics and suitability of paper.
4. Registration and printing multi-colour work on single colour machines.

5. General machine maintenance. The care and treatment of damping and inking rollers.
6. Properties of paper and board that affect the lithographer such as grain direction, wire and felt side, pH, dimensional stability, temperature and relative humidity.
7. Basic outline of the composition of lithographic inks and their drying characteristics.
8. Ink mixing and colour matching techniques.
9. Selection and care of offset blanket.
10. The effect of plate and blanket packing on the image size.
11. The design and use of anti set-off devices.
12. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

LITHOGRAPHIC OFFSET MACHINIST Tradesman Class I

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Lithographic Offset Machinist.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, correct use, care and maintenance of tools and other equipment required for Class I test.
2. Terms needed in describing colour.
3. Brief description of colour scheme and charts.
4. Effects of humidity on paper and how to distinguish grain direction.
5. Estimating quantities of paper and ink, black and coloured inks, allowance for spoilage, daily work and job docket.
6. Outline of the work of the other associated production departments such as platemaking, stripping, camera and binding. Necessity for inter-departmental co-operation.
7. Principles of design and construction of multi-colour, perfecting and web- offset presses.
8. Fitting of plates, registration and printing on multi-colour presses.
9. Wet on wet printing.
10. Opacity and transparency of inks. Tint colours. Additives and their effects on the working properties of the ink. Adjustments of inks for set-off, fluffing, picking etc.
11. Management of multi-metal plates on the press.
12. Press varnishing and bronzing.
13. Methods of quality control in the press room.
14. Maintenance of pumps for delivery and feeder.
15. To estimate production time and costs, and be capable of providing leadership to tradesman of lower levels.
16. A thorough understanding of all the safety regulations and safety precautions to be observed for safe working in a printing shop with reference to the current Factories Act and Regulations made under the Act.

HAND AND MACHINE TYPOGRAPHER Tradesman Class III

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be able to read and speak English.

The candidate will be required to show by practical demonstration an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, correct use, care and maintenance of the tools and equipment required for class III test.
2. Type sizes, cases and parts of type.
3. Recognition of type faces, applicable to house and an approved list.
4. The point system of measurement, general use and application.
5. Proof readers marks.
6. Description of paper, size, including ISO sizes.
7. Description and uses of composing room materials and equipment.
8. Imposition sheet and half-sheet work: general principles of imposition regular schemes of 4, 8 and 16 pages upright and landscape.
9. Knowledge of common terms used in printing emphasis on composing terms.
10. Interpretation of copy and layout.
11. Hand setting ability, (500 ens per hour corrected, set in 10 pt. type from good copy).
12. Spacing between letters, words and lines.
13. Fitting of initial letters.
14. Setting jobbing and commercial work i.e advertisements, business stationery, commercial forms, tickets, cards, labels, mitring borders.
15. Simple page make-up (lino and mono).
16. Correcting, distributing and cleaning of type.
17. Imposing for hand-fed and automatic platens.
18. Forme planning and proper use of quoins and quoin keys.
19. Familiar with the general safety rules in the use of tools and equipment related to the trade.

HAND AND MACHINE TYPOGRAPHER Tradesman Class II

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of the Hand and Machine Typographer.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class II test.
2. The use of daily docketts. The purpose of work instructions forms or bags.
3. Imposition regular schemes of 32 pp upright and landscape work and turn, work and tumble, work and twist, sheet work and half sheet work.
4. Subdivision of paper.
5. Type of chases and their uses.
6. Common difficulties in uses of type.

7. Suitability of linotype, monotype for different classes of work and operation of cold type setting equipment.
8. Characteristics of line and half-tone plate and stereotype.
9. Binding method and their effect on imposition.
10. Further knowledge of printing terms.
11. Basic principles of machine composing.
12. Imposition for colour.
13. Hand setting ability (1,000 ens per hour corrected set in 10 pt. type from good copy).
14. Simple display matter from unmarked copy.
15. Box heading and tabular work.
16. Cylinder packing on proof and precision presses.
17. Advanced page make up, insertion of rule, running type round blocks.
18. Correcting on stone or on machine.
19. Proof reading.
20. Imposing for bookwork and collating marks.
21. Simple paste up.
22. An understanding of the general factory safety plus a knowledge of the procedure when an accident occurs.

HAND AND MACHINE TYPOGRAPHER
Tradesman Class I

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Hand and Machine Typographer.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, correct use, care and maintenance of tools and other equipment required for Class I test.
2. Imposition schemes up to 64 pages upright for machine folding; 4 and 8 page jobs printed two up, inserted work up to 16 pages.
3. Suitability of type to paper.
4. Basic knowledge-theory of colour.
5. Splitting for colour-theory of colour.
6. Advanced calculations estimation and casting off.
7. Types of plate mounting materials.
8. Aid to register in the composing room.
9. Further knowledge of printing terms.
10. Make up of book work including bleed blocks.
11. Simple casting of copy by the use of copy-fitting tables casting-off simple tabular matter.
12. Separation of type for colour.
13. Ruling up a printed sheet.
14. Advanced imposition for colour work.
15. Stereo and rubber lock-ups, setting for duplicates.
16. Causes and the elimination of rising spaces and types.
17. Use, maintenance, calculations and changing of wheels of numbering boxes.
18. Ability to draw simple composing room layout and knowledge of suitable typefaces.

19. Proofing on hand and precision press.
20. To estimate production time and costs and be capable of providing leadership to tradesmen of lower levels.
21. A thorough understanding of the safety regulations and precautions to be taken for safe working in a printing shop with reference to the current Factories Act and Regulations made under the Act.

BOOKBINDER
Tradesman Class III

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be able to read and speak English.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class III test.
2. Development and structure of the book. Binding methods.
3. Characteristics and suitability of paper. Paper sizes and subdivisions. Care and storage of white paper.
4. Materials; covering materials, boards, types, threads.
5. Preparation and use of paste and glues and synthetic adhesives.
6. Stitching methods; general principles of wire stitching and operation of wire stitching machines.
7. Terms used in bookbinding.
8. Hand numbering; use and setting of hand numbering machines.
9. Simple impositions. Hand folding. Styles of folding.
10. Operation of flat perforating machine.
11. Cording, eyeletting and padding.
12. Familiar with the general safety rules in the use of tools and equipment related to the trade.

BOOKBINDER
Tradesman Class II

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of the Bookbinder.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class II test.
2. Adjusting and operation of folding machine for right-angle folds.
3. Ruling terms; setting pen and disc ruling machine for run-through work.
4. Setting and operation of rotary perforator for run-through and stop perforation.

5. Use of guillotine for cutting and trimming.
6. Further knowledge of bookbinding and printing terms.
7. Pamphlet and magazine binding. Gathering, collating, stitching, wrapping and covering.
8. Edition case binding. Hand sewing, rounding and backing, case making in full bound style.
9. Label punching and cut-outs. Drilling, strip gumming.
10. Perfect binding. Methods. Machines and adhesive use. Styles of covering and end paper.
11. Gold blocking.
12. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

BOOK BINDER Tradesman Class I

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Bookbinder.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, correct use, care and maintenance of tools and other equipment required for Class I test.
2. Setting and operation of ruling machines for standard and intricate patterns in two colours.
3. Index cutting, stap, tab, thump, one and two letter indices.
4. Setting and operation of folding machine for double, parallel and other folds, and landscape work.
5. Letterpress, library and stationery bindings. Use of threadsewing machine. Half and quarter binding. Blocking, tooling, sprinkling and colouring of edges, edge gilding. Head Bands.
6. Treatment of plates and maps.
7. Perfect binding. Machines and adhesive use. Styles of covering and decorated end paper, and marbling.
8. Setting and operation of automatic numbering and perforating machine. Consecutive, repeat, backward numbering.
9. Operation and adjustment of three-knife trimmer.
10. Principles of the gang-stitching machines.
11. Box making-round boxes etc.
12. To estimate production time and costs and be capable of providing leadership to tradesmen of lower levels.
13. A thorough understanding of all the safety precautions to be observed for safe working in a printing shop with reference to the current Factories Act and Regulations made under the Act.

PHOTO MECHANIC Tradesman Class III

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be able to read and speak English.

The candidate will be required to show by practical demonstration and an oral/written test

that he has acquired the necessary practical experience and gained basic knowledge of the following:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class III test.
2. Introduction to photography, to include five factors-light, camera, lens, sensitive material and object.
3. Light; visible spectrum.
4. Types of illumination.
5. Theory of exposures-camera and plate maker.
6. Image formation-simple lens.
7. Emulsion and its manufacture.
8. Processing-develop, stop bath, fixer, wash and dry.
9. Theory of development-films and plates.
10. Line Reproduction-negative and control wedge, use of magnifying glass.
11. Continuous tone reproduction.
12. Systematic working: make-ready.
13. Basic principles of lithography.
14. An elementary understanding of the materials used in platemaking.
15. An understanding of the function and use of platemaking equipment.
16. A basic knowledge of different types of plates.
17. Principles and application of negative and positive platemaking.
18. The preparation of layout sheets for single and two colour work.
19. Positioning of image on plates for speedy registration on the machine.
20. Knowledge of storage, handling and use of chemicals and plates.
21. Familiar with the general safety rules in the use of tools and equipment and the safe handling and use of chemicals related to the trade.

PHOTO MECHANIC Tradesman Class II

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class III in the trade of Photo Mechanic.

The candidate will be required to show by practical demonstration and an oral/written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to all the requirements laid down in the Class III test:-

1. The identification, correct use, care and maintenance of the tools and equipment required for Class II test.
2. Types of camera; general principle, construction and mechanism.
3. Light; reflection, refraction, inverse square law.
4. Illumination; factors, spectral emission.
5. Image formation, compound lens, lens aberation, lateral reversal.
6. Emulsion; production of simple type, effective exposure and development.
7. Film processing chemicals-ingredients and function.
8. Developing systems; dish, brush, rocker, nitrogen, burst, automatic processor.
9. Basic laws of photography.
10. Quality control; control wedges, densitometers.

11. Half-tone process; the need for a dot structure.
12. Half-tone theories; pin hole, penumbral and diffraction.
13. Screen half tone; types of half tone screen.
14. Half-tone reproduction; direct and indirect method.
15. Line and tone combination.
16. Effects of variations in humidity and temperature in the platemaking department.
17. Principles, application, preparation and properties of deep etch plates.
18. Basic understanding of the techniques used for repairing negatives and positives for colour work.
19. Purpose and position of register marks and step wedges.
20. An understanding of the general factory safety plus a knowledge of the procedures when an accident occurs.

PHOTO MECHANIC Tradesman Class I

The employer or training institution will be expected to provide the necessary tools and equipment to the candidate when performing the trade test.

The candidate must be in possession of a Trade Test Certificate for a Tradesman Class II in the trade of Photo Mechanic.

For a Tradesman Class I test, the candidate will be required to show by practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade, including the following:-

1. The identification, correct use, care and maintenance of tools and other equipment required for Class I test.
2. Half-tone process, variable factors, controlling factors.
3. Screens.
4. Contrast control; use of filter and supplementary exposures.
5. Densitometry; use of densitometers, calculations.
6. Sensitometry; the characteristic curve.
7. Introduction to colour, visible spectrum, additive and subtractive synthesis complementary colours.
8. Colour separation; filters and filter factors and ratios, reflection and transparency originals.
9. Ink and filters; their relationship.
10. Colour and tonal correction; the need for colour and tonal correction.
11. Marking.
12. Silver recovery.
13. Types of original; line drawings; tints and stiples, type pulls, lettering, labels, tone and colour originals.
14. Introduction of marks on originals.
15. Printers imprint.
16. Copyright Act.
17. Photo set-offs; brown line keys and other methods of multi-image registration in the printing-down frame.
18. Suitability of each plate-making process for different kinds of work, considering quantity, quality and stock.
19. A sound knowledge of imposition including sheet work, work and turn and work and tumble.
20. Duplicate image plates. Design and use of step-and-repeat equipment.

21. A basic understanding of the principles and properties of multi-metal plates.
22. A sound knowledge of negative and positive stripping techniques for colour work.
23. To estimate production time and costs and be capable of providing leadership to tradesmen of lower levels.
24. A thorough understanding of all the safety regulations on safety precautions to be observed for safe working in a printing shop with reference to the current Factories Act and Regulations made under the Act.

Group G-Hotel and Catering Trades
(Inserted by Notice 13th July, 1978)

Tradesman Class III

The candidate must have in his possession the following tools:

Quantity Item

- 1 Boning knife
- 1 Palette knife 6"-8"
- 1 Cook's knife 3 ½"-4"
- 1 Sharpening steel
- 1 Cook's knife 8"-10"
- 1 Vegetable peeler
- 1 Chopping knife

The candidate will be required to show by practical demonstration and an oral and written test that he has acquired the necessary practical experience and gained basic knowledge of the following:

1. The particular importance of personal hygiene and foot sanitation to this trade.
2. The identification, care, use and maintenance of the tools listed above.
3. Correct use and cleaning techniques of kitchen plant and mechanical equipment including, stoves, steamers, deep fat fryers, grills and griddles, potato peelers, refrigerators, food mixers and attachment and weighing scales.
4. Identification and quality points of local and imported vegetables, salad stuffs and fruits.
5. Preparation for further processing of all vegetables, fruits and salad stuffs.
6. Identification and quality points of beef, pork and lamb.
7. Correct cutting of loins into chops, cutlets and steaks.
8. Quality points of fresh and frozen fish.
9. Scaling, trimming and cutting of fish into fillets, steaks and fingers.
10. Identification of commonly used groceries including dairy produce, condiments, cereals and pulses.
11. Preparation of stocks, brown sauce, white sauce, veloutes and simple sauce derivatives. Preparation of puree, veloute and cream soups.
12. Boiling, stewing, grilling and frying of appropriate foods for these methods of cookery.
13. Cooking, and presentation of uncooked and cooked, breakfast dishes and light snacks.
14. Garnishing of food for both plate and silver service.
15. Preparation and presentation of sandwiches.
16. Preparation and presentation of simple hors d'oeuvres, seafood cocktail and kokoda.
17. Correct storage facilities for unprepared perishable foodstuffs; storage of cooked and prepared foods ready for service or for later reheating.

Tradesman Class II

In addition to possessing the tools specified for the Class III Test, in the trade of cook, the candidate must be in possession of the following:

Quantity Item

- 1 Filleting knife 6"-8"
- 1 Roasting fork
- 1 Trussing needle
- 1 Carving knife 7"-9"
- 1..... Piping Bag 14"
- 1..... No. 8 Star Tube

The candidate must be in possession of a trade certificate for a Tradesman Class III in the trade of cook.

The candidate will be required to show by practical demonstration and an oral and written test that he has acquired the necessary practical experience and gained sufficient knowledge of the following in addition to the requirements laid down in Class III Test.

1. Legal responsibilities involved in preparing sanitary food.
2. Identification, use and care of all varieties of kitchen and service equipment.
3. Current prices for commonly used basic commodities.
4. Planning considerations for the preparation of simple lunch and dinner menus.
5. Identification of all pork and lamb joints and beef hind quarter joints.
6. Appropriate preparation, butchery, cooking and garnishing of poultry and large joints for grilling, roasting, pot roasting, braising and sauter.
7. Preparation of advanced sauces:- demi-glace and derivatives; Hollandaise and Hard butter sauces.
8. Preparation and presentation of simple larder work:- advanced hors d'oeuvres pates, salads, cold meats, appropriate cold sauces and derivatives.
9. Preparation of consommé and bisques.
10. Preparation and presentation of various omelettes and farinaceous dishes.
11. Preparation, garnishing and presentation of various sauced fish dishes.
12. Cooking of all types of vegetable and potato dishes in common use, ready for immediate service and for later reheating and presentation.
13. Basic pastry work and bread rolls.
14. Average portion sizes; portion control equipment.
15. Basic menu costing; requisitioning and storage of kitchen supplies.
16. Advantages and disadvantages of convenience foods in relation to labour, cost and quality.

Tradesman Class I

The candidate must have in his possession the tools specified for the Class III and Class II Tests in the Trade of Cook.

The candidate must have obtained a Trade Test Certificate for a Tradesman Class II in the Trade of Cook.

For a Tradesman Class I Test the candidate will be required to show by a practical demonstration and a written test that he is fully skilled and has a sound knowledge of all the skills and operations of the trade including the following:

1. Calculation of quantities to be used for various meals.
2. Full understanding of menu planning principles and the ability to plan a la carte, fixed and special functions menus.
3. Fundamental kitchen preparations; court bouillons, duxelles stuffings, marinades, panades.
4. Identification, preparation and all appropriate cooking of local fish and shell fish.
5. Preparation of all entrees and relevés of offals, poultry and meats.
6. Preparation of small cold buffets, to include basic chaud froid work and canapes.
7. Preparation of basic patisserie work.
8. The carrying out of any presentation work applicable to this trade.
9. Preparation of work plans, assessing production times, and be capable of providing leadership to tradesmen of lower levels.
10. A thorough understanding of safe working practices, and the Public Health (Hotels, Restaurants and Refreshment Bar) Regulations, (particularly regulations 10, 10A (a) and (b), 12 to 15).

Controlled by Ministry for Labour, Industrial and Productivity
