

No. S-412.

GOVERNMENT OF INDIA.

DEPARTMENT OF INDUSTRIES AND LABOUR.

STORES.

Dated Simla, the 20th August 1923.

RESOLUTION.

In their Memorandum No. 1885-R.S., dated the 4th August 1913, the Railway Board referred to the organizations, namely, the office of the Superintendent of Local Manufactures and Government Test House and the Metallurgical Inspectorate, which had been constituted at Calcutta and Sakchi (re-named Jamshedpur) respectively for the testing and inspection of various descriptions of materials, and published two schedules of the charges which it had been decided to levy for the carrying out of test and inspections by those organizations.

2. During the past nine years the position has undergone marked changes. The office of the Superintendent of Local Manufactures and Government Test House has recently been entirely reconstituted. Inspection, as distinct from testing work has been withdrawn from that organization and is now undertaken by a separate agency, styled the Inspection Circle, Calcutta, in charge of a Controller of Inspection. The testing work continues to be carried out at the Government Test House, which is now under the control of an officer designated the Superintendent of the Government Test House, Alipore. The Test House has, moreover, been considerably enlarged and equipped with a strong staff of experts and with a varied assortment of machinery and plant. The Metallurgical Inspectorate has also been developed in respect of expert personnel, equipment and testing accommodation and, like the other two organizations named, is in a position to carry out various descriptions of tests and inspections covering a wide range of materials. All three organizations form part of the Indian Stores Department. The experience acquired during recent years has indicated that the existing scales of charges are not sufficiently comprehensive and are in other respects unsuited to the present conditions, and after a careful examination of the matter the Government of India have decided to substitute for the existing schedules the two revised schedules appended hereto, namely:—

- (i) A schedule of charges for testing and inspection of the local manufactures of articles of iron and steel, metals and other materials including cement, oils, paints, coal, minerals, etc., for all central and local Government Departments and local Administrations, State and Company-worked Railways, Indian States, Port Trusts, Municipalities and all other public bodies.
- (ii) A schedule of charges for the testing and inspection of local manufactures of articles of iron and steel, metals and other materials including cement, oils, paints, coal, minerals, etc., for private firms and individuals.

The revised scales will come into force with effect from the 1st September 1923, from which date all work which is not definitely covered by existing contracts will be charged for at the revised rates.

[Price, As. 12 or 1s. 3d.]

3. The new charges, as explained in the notes to the schedules, are for work done in the areas where the testing and inspection staff is located and for tests and analyses made on Government owned machines or with Government apparatus. Other rates, which will be determined by the circumstances of each case, will be chargeable for tests or inspections carried out elsewhere than at the places where a testing or inspection staff is located and also for tests carried out on machines not belonging to Government. The list of tests and analyses given is not exhaustive. Other mechanical tests and analyses can be made as required within the limits of the capacity of the machines and apparatus installed at rates which may be ascertained on application to the Superintendent of the Government Test House or the Metallurgical Inspector as the case may be.

4. Until further notice, all requisitions or requests for inspections should be forwarded to the Chief Controller of Stores, who will arrange for the performance of the work by such of the organizations under his control as appears to him most suited to carry out the work. Requisitions and requests for tests, analyses, examination of materials and expression of opinion on result of such examination should as hitherto be forwarded direct to the Superintendent of the Government Test House or the Metallurgical Inspector as the case may be.

5. For the accounting and recovery of the charges specified in the accompanying schedules, the following procedure will be observed. In the case of work done for Government Departments in respect of stores purchased through the agency of the Indian Stores Department the inspection and testing charges will be debited against the Department concerned by the Audit Officer, Indian Stores Department, along with the cost of the stores purchased. In the case of inspections and tests of materials purchased otherwise than through the agency of the Indian Stores Department, the officer in charge of the inspection or testing organization will, as soon as the work is completed, prepare a voucher showing the value of work done and forward it in triplicate to the Department concerned which will countersign and return two copies to such officer and retain one copy for record. At the end of the month, the officer in charge of the inspection or testing agency will send the accepted vouchers to the Audit Officer, Indian Stores Department, for adjustment. In the case of work done for private firms and individuals, the cost of the work done should be realised in cash by the officer in charge of the inspection or testing organization and paid into the nearest Government Treasury to the account of the Audit Officer, Indian Stores Department. If the parties so desire, they may be asked to pay the amounts into the nearest Government Treasury to the account of the Audit Officer, Indian Stores Department, and to forward the Treasury Receipts to the officer in charge of the inspection or testing organization. These receipts should be transmitted by these officers to the Audit Officer, Indian Stores Department, at the end of the month for necessary adjustment.

ORDER.—Ordered that the above Resolution be communicated to all Local Governments and Administrations,* the several Departments of the Government of India,† the Heads of Departments subordinate to this Department,‡ and the Audit Officer, Indian Stores Department and that it be published in the Supplement to the *Gazette of India* for general information.

A. H. LEY,

Secretary to the Government of India.

* Madras, Bombay, Bengal, United Provinces, Punjab, Burma, Bihar and Orissa, Central Provinces, Assam, North-West Frontier Province, Baluchistan, Ajmer-Merwara, Coorg and Delhi.

† Foreign and Political, Army, Home, Commerce, Railway, Legislative, Finance, Education, Health and Lands, Financial Adviser (Military Finance).

‡ Controller of Printing, Stationery and Stamps, Controller of Patents and Designs, Chief Inspector of Explosives, Chief Inspector of Mines, Chief Controller of Stores, Director Geological Survey of India, Director-General of Posts and Telegraphs, Director-General of Observatories, Superintending Engineer, Simla Imperial Circle.

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Schedule I.

Schedule of charges for testing and inspection by the inspection staff of the Indian Stores Department of the local manufactures of articles of iron and steel, metals and other materials including cement, oils, paints, coal, minerals, etc., for all Central and Local Government Departments and Local Administrations State and Company-worked Railways, Indian States, Port Trusts, Municipalities and all other public bodies.

PART I.—TESTS AND ANALYSES.

Item.	Description of tests and analyses.	Charges.
		Rs. A. P.
	I.—METALS.	
	<i>A.—Physical tests.</i>	
1	Bend tests—	
	(a) Specimen ready for testing	3 0 0 per test.
	(b) Extra charge for preparing test piece	2 0 0
	(c) The rate shown under (a) is for "cold bend" tests. Extra charge for heat treatment for "temper" bend test as defined in British Standard Specifi- cation.	1 0 0
2	Brinell tests—	
	(a) Four impressions on one piece	6 0 0 per test.
	(b) Each additional impression on same piece	1 0 0
	(c) Preparation of each, pair of parallel surfaces	3 0 0
3	Compression tests—	
	(a) Specimen machined ready for testing with observa- tion of yield point.	7 0 0 per test.
	(b) Specimen machined ready for testing but without observation of yield point.	5 0 0 per test.
	(c) Extra charge for preparing test piece	3 0 0
4	Impact tests on notched bars—	
	(a) Specimen machined ready for testing	8 0 0 per bar tested.
	(b) Extra charge for preparing test piece	3 0 0
5	Rivet tests—	
	Set of tests (one cold bending and one hot flattening) to British Standard Specifications.	5 0 0 per set of tests.
6	Shearing tests—	
	(a) Specimen machined ready for testing	5 0 0 per test.
	(b) Extra charge for preparing test piece	3 0 0

Item.	Description of tests and analyses.	Charges.
7	Structure— (a) Examination of macro-structure and micro-structure including cutting and preparing specimen. (b) Macrographs or photomicrographs	Rs. A. P. 24 0 0 per section. 5 0 0 per print.
8	Tensile tests— (a) Specimen machined ready for testing (b) Extra charge for preparing test piece (c) Wire rope (d) Wires and rods up to and including $\frac{3}{8}$ " diameter without machining.	10 0 0 per test. 5 0 0 16 0 0 per test. 6 0 0 per test.
9	Torsion tests— (a) Specimen machined ready for testing including modulus of elasticity. (b) Specimen machined ready for testing excluding modulus of elasticity. (c) Extra charge for preparing test piece	16 0 0 per test. 10 0 0 „ 4 0 0
10	Transverse tests— Transverse tests of cast iron bars including measurement of deflection.	10 0 0 per test.
I.—METALS AND MINERALS.		
B.—Chemical Analysis.		
1	Aluminium— (Silicon, copper and iron) Aluminium— (other elements)	12 0 0 per element or 30 0 0 per set of the three elements named. 16 0 0 per element.
2	Antimony. (Estimation of Antimony)	16 0 0 per test.
3	Bronze, brass and similar alloys :— (Copper, lead, tin, zinc, iron) Other elements	12 0 6 per element. 32 0 0 per set of elements named. 16 0 0 per element.
4	Copper (copper and arsenic)	16 0 0 „
5	Ferro manganese (Carbon, Manganese, phosphorus)	12 0 0 „ 30 0 0 per set of the 3 elements named.

Item.	Description of tests and analyses.	Charges.		
		Rs.	A.	P.
6	Iron Cast— (Combined carbon, graphite, silicon, manganese, sulphur and phosphorus).	8	0	0 per element.
		32	0	0 per set of 5 elements.
		40	0	0 per set of 6 elements named.
7	Iron wrought or steel— (Combined carbon, silicon, manganese, sulphur and phosphorus).	8	0	0 per element.
		32	0	0 per set of 5 elements named.
8	Lead (Estimation of lead)	12	0	0 per test.
9	Solder (tin and lead)	12	0	0 per element.
10	Tin (Estimation of tin)	12	0	0 per test.
11	White metal	12	0	0 per element.
12	Zinc	12	0	0 „
13	Coal ash (ordinary full analysis)	48	0	0 per test.
14	Bauxite	48	0	0 „
15	Cement—			
	(a) per single estimation	8	0	0 per test.
	(b) ordinary full analysis	32	0	0 „
16	Chromite (Chromium sesquioxide)	16	0	0 „
17	Chromite (Silica)	12	0	0 „
18	Clay	48	0	0 „
19	Coal or coke (proximate analysis and calorific value)	20	0	0 „
20	Coal or coke calorific value only	12	0	0 „
21	Graphite plumbago	16	0	0 „
22	Lime, limestone, chalk, kunker	32	0	0 „
23	Magnesite, dolomite	32	0	0 „
24	Manganese ore (manganese only)	16	0	0 „
25	*Water mineral analysis only	48	0	0 „

NOTE.—Bacteriological examination of water is not undertaken. Water for drinking should be sent to the Public Health Laboratory of the Province.

Item.	Description of tests and analyses	Charges.
		Rs. A. P.
	II.— OILS, PAINTS, PIGMENTS AND MISCELLANEOUS.	
	<i>A—Physical tests.</i>	
	Lubricating oils—	
	(a) Physical test of mineral oils	20 0 0 per test.
	(b) Physical test including saponification and acid values	30 0 0 „
	(c) Viscosity or flash point or other individual test only	5 0 0 „
	<i>B.—Chemical analyses.</i>	
1	Vegetable and animal oils or fats	16 0 0 per test.
2	Kerosene	24 0 0 „
3	Oil fuel, crude oil, etc.	32 0 0 „
4	Petrol	20 0 0 „
5	Turpentine	20 0 0 „
6	Turpentine substitute	20 0 0 „
7	Greases	24 0 0 „
8	Dry colours and pigments	20 0 0 „
9	Stiff paints	40 0 0 „
10	Mixed paints	50 0 0 „
11	Varnish	20 0 0 „
12	Sulphuric acid (for accumulators)	24 0 0 „
13	Sulphate of alumina	20 0 0 „
14	Calcium chloride	16 0 0 „
15	Beeswax	20 0 0 „
16	Paraffin wax and candles	20 0 0 „
17	Bleaching powder (available chlorine only)	10 0 0 „
18	Creosote oil	32 0 0 „
19	Glycerine	20 0 0 „
20	Glue	20 0 0 „
21	Lac Shellac	20 0 0 „
22	Pitch	20 0 0 „
23	Soap	20 0 0 „
24	Spirit denatured or rectified	16 0 0 „

Item.	Description of tests and analyses.	Charges.
		Rs. A. P.
25	Sulphur	32 0 0 per test.
26	Coal tar to British Standard Specifications for road purposes	40 0 0 per test.
III.—BUILDING MATERIALS.		
1	Portland Cement—	
	Series of tests to standard specification—	Rs. A. P.
	(a) Physical test	32 0 0 per test.
	(b) Chemical test	32 0 0 per test.
	(c) Combined chemical and physical test	64 0 0
	(d) Setting test only	5 0 0 per test.
	(e) Expansion test only	5 0 0 „
2	Limes, natural cements, etc.—	
	(a) Physical test	32 0 0 per test.
	(b) Chemical test	32 0 0 per test.
	(c) Combined physical and chemical test	64 0 0
3	Sand—	
	(a) Tensile strength of mortar made with samples in comparison with standard sand.	30 0 0
	(b) Tensile test of cement mortar made with samples	15 0 0
	(c) Examination of sand to determine suitability as a substitute for Leighton Buzzard sand.	48 0 0
4	Stone, brick concrete, etc.—	
	(a) Comparison test on three similar tubes or bricks (including preparation of specimens).	16 0 0
	<small>NOTE.—Extra charges will be made for the preparation of very rough specimens for testing. These charges will be made according to the work involved.</small>	
	(b) Absorption tests } Permeation tests } per sample	5 0 0 per test.
5	Timber—	
	(a) Transverse test on prepared specimens	10 0 0 per test.
	(b) Shearing test on prepared specimens	10 0 0 per test.
	(c) Compression on prepared specimens	10 0 0 per test.
	<small>NOTE.—Only the above tests are undertaken. Samples requiring further examination and testing should be sent to the Forest Research Institute, Dehra Dun.</small>	

Item.	Description of tests and analyses.	Charges.
6	Stoneware pipes— Examination and pressure tests to British Standard Specifications.	Rs. A. P. 10 0 0 per test.
IV.—MISCELLANEOUS TESTS.		
1	Tensile test of non-metallic rope	16 0 0 per test.
2	Tensile test of belting	10 0 0 per test.
3	Tensile test of cloth	10 0 0 per test.
4	Tensile test of string, cord, etc.	5 0 0 per test.
5	Coupling, drawhooks, chains, etc.— (a) Proof test only (b) Proof and destruction tests. (c) Impact test	16 0 0 per test. 24 0 0 per test. 32 0 0 per test.
6	Pressure and vacuum gauges— (a) For examination and calibration (b) For examination adjustment and recalibration	8 0 0 16 0 0
EXPRESSION OF OPINION.		
1	For comprehensive report and expression of opinion or recommendations on results of analyses, tests or examinations	25 per cent. of total experimental charges subject to a minimum charge of Rs. 16.

NOTE 1.—These charges are for work done in areas where inspection staff is located; additional charges to cover travelling and other expenses are leviable for tests and inspections made in other areas.

NOTE 2.—The rates specified in the Schedule are for single operations on samples of average ease of preparation. Special rates may be charged where preparation involves substantially more than the usual amount of work (e.g., owing to size of specimens from which test piece is to be cut or owing to unusual hardness of materials), or where the test or analysis presents special difficulties (e.g., owing to the presence of a disturbing element). On the other hand reduction may be made in the rates in suitable cases where preparation is very simple, or where several estimations or tests of the same kind are asked for at one time or are by previous arrangements to be made at regular intervals. The Superintendent of the Government Test House or the Metallurgical Inspector as the case may be will, on request, quote special rates to meet conditions described above.

NOTE 3.—The list of tests and analyses given in the Schedule is not exhaustive. Other mechanical tests and analyses can be made as required within the limits of the capacities of the machines and apparatus installed. These charges will be reasonably proportionate to those laid down in the Schedule and the Superintendent of the Government Test House, or the Metallurgical Inspector as the case may be will, on request, quote rates for any special tests or analysis not specifically described in the Schedule.

NOTE 4.—The rates laid down are for tests and analyses made on Government owned machines or with Government apparatus. If tests under Government supervision are required on privately owned machines suitable modifications to meet the circumstances in each case will be made in the rates shown and will be intimated on receipt of specific request.

NOTE 5.—The rates specified cover all incidental charges connected with the receipt in and despatch from the Government Test House and the Metallurgical Inspectorate of samples sent for tests and analyses, other than railway freight, which will be a charge against the party on whose behalf the test is to be carried out.

PART II—INSPECTIONS.

Item.	Description of material and inspections.	Charges.																												
1	<p>(a) Pig iron, steel ingots, blooms and billets</p> <p>NOTE.—This rate will be subject to modification in accordance with specification and contract under which material is supplied. Variations in rates will be intimated on receipt of full details.</p> <p>(b) Steel sections to British Engineering Standard or similar specification.</p> <p>(c) Rails and fish-plates of all sections to Railway Board or British Engineering Standard Specification.</p> <p>(d) Iron and steel castings of all descriptions</p> <p>For inspection and necessary chemical analysis :—</p> <p>(i) For orders of 1,000 tons and upwards an inclusive charge (subject to a minimum charge of Rs. 2,000).</p> <p>(ii) For orders under 1,000 tons an inclusive charge of</p> <p>NOTE.—Tensile tests are not included in above fees and in cases where such tests are required and are carried out in Government-owned machines by the Government inspection staff, they will be charged for at rates prescribed in Part I of the Schedule. In the event however of such tests being made under the supervision of the Government inspection staff on other than Government-owned machines and appliances, the following charges for supervision will be made—</p> <table data-bbox="314 1661 1084 1929"> <thead> <tr> <th></th> <th>Rs.</th> <th>A.</th> <th>P.</th> </tr> </thead> <tbody> <tr> <td>(i) for tensile tests</td> <td>5</td> <td>0</td> <td>0 per test.</td> </tr> <tr> <td>(ii) for compression tests</td> <td>5</td> <td>0</td> <td>0 per test.</td> </tr> <tr> <td>(iii) for deflection tests</td> <td>5</td> <td>0</td> <td>0 per test.</td> </tr> <tr> <td>(iv) for bend tests</td> <td>2</td> <td>0</td> <td>0 per test.</td> </tr> <tr> <td>(v) for impact tests on notched bars</td> <td>5</td> <td>0</td> <td>0 per test.</td> </tr> <tr> <td>(vi) for forging tests</td> <td>1</td> <td>0</td> <td>0 per test.</td> </tr> </tbody> </table>		Rs.	A.	P.	(i) for tensile tests	5	0	0 per test.	(ii) for compression tests	5	0	0 per test.	(iii) for deflection tests	5	0	0 per test.	(iv) for bend tests	2	0	0 per test.	(v) for impact tests on notched bars	5	0	0 per test.	(vi) for forging tests	1	0	0 per test.	<p>Basic rate Re 1 per ton of material accepted.</p> <p>Rs. 1-8-0 per ton of material accepted.</p> <p>Rs. 2 per ton of material accepted.</p>
	Rs.	A.	P.																											
(i) for tensile tests	5	0	0 per test.																											
(ii) for compression tests	5	0	0 per test.																											
(iii) for deflection tests	5	0	0 per test.																											
(iv) for bend tests	2	0	0 per test.																											
(v) for impact tests on notched bars	5	0	0 per test.																											
(vi) for forging tests	1	0	0 per test.																											
2	<p>For inspections of engineering plant and materials of all descriptions other than those prescribed under item No. 1 above (including all ordinary Physical and Chemical tests of material and finished articles <i>see notes</i> below).</p>	<p>1 per cent. of the contract value of the materials subject to a minimum of Rs. 50. (<i>Vide</i> Note 4)).</p>																												

NOTES.—1. The cost of confirmatory tests of material to be used will be borne by the inspection department provided the material is acceptable. Should material so tested fail to comply with requirements, the cost of testing will be charged to the contractor at the rates prescribed in Part I of the Schedule.

2. Test of finished articles will be made on the contractor's premises provided approved appliances are available; in the absence of such facilities the cost of testing on Government appliances is to be borne by the contractor.

3. The cost of special tests such as impact or fatigue tests of material or impact tests on couplings will be charged to the purchaser at rates prescribed in Part I of the Schedule unless specified to the contrary in the contract.

4. In the case of authorities who utilise the services of the Indian Stores Department regularly for the inspection of their materials the charge is assessed at 1 per cent. of the value of the materials without any minimum charge.

The provisions contained in above notes should invariably be embodied in all contracts.

Schedule II.

Schedule of charges for testing and inspection by the inspection staff under the Indian Stores Department of the local manufactures of articles of iron and steel, metals and other materials including cement, oils, paints, coal, minerals, etc., for private firms and individuals.

PART I.—TESTS AND ANALYSES.

Item.	Description of tests and analyses.	Charges.
I.—METALS.		
<i>A.—Physical tests.</i>		
		Rs. A. P.
1	Bend tests—	
	(a) Specimen ready for testing	4 8 0 per test
	(b) Extra charge for preparing test piece	3 0 0
	(c) The rate shown under (a) is for “cold bend” tests. Extra charge for heat treatment for “temper” bend tests as defined in British Standard Specifications.	1 8 0
2	Brinell tests—	
	(a) Four impressions on one piece	9 0 0 per test.
	(b) Each additional impression on same piece	1 8 0
	(c) Preparation of each pair of parallel surfaces	4 8 0
3	Compression tests—	
	(a) Specimen machined ready for testing, with observation of yield point.	10 8 0 per test.
	(b) Specimen machined ready for testing but without observation of yield point.	7 8 0 per test.
	(c) Extra charge for preparing test piece	4 8 0
4	Impact tests on notched bars—	
	(a) Specimen machined ready for testing	12 0 0 per bar tested.
	(b) Extra charge for preparing test piece	4 8 0
5	Rivet tests—	
	Set of tests (one cold bending and one hot flattening) to British Standard specifications.	7 8 0 per set of tests.
6	Shearing tests—	
	(a) Specimen machined ready for testing	7 8 0 per test.
	(b) Extra charge for preparing test piece	4 8 0

Item.	Description of tests and analyses.	Charges.
		Rs. A. P.
7	Structure—	
	(a) Examination of macro-structure and micro-structure including cutting and preparing specimen.	36 0 0 per section.
	(b) Macrographs or photomicrographs	7 8 0 per print.
8	Tensile tests—	
	(a) Specimen machined ready for testing	15 0 0 per test.
	(b) Extra charge for preparing test piece	7 8 0
	(c) Wire rope	24 0 0 per test.
	(d) Wires and rods up to and including $\frac{3}{8}$ " diameter without machining.	9 0 0 per test.
9	Torsion tests—	
	(a) Specimen machined ready for testing including modulus of elasticity.	24 0 0 per test.
	(b) Specimen machined ready for testing excluding modulus of elasticity.	15 0 0 per test.
	(c) Extra charge for preparing test piece	6 0 0
10	Transverse tests—	
	Transverse tests of cast iron bars including measurement of deflection.	15 0 0 per test.
I.—METALS AND MINERALS.		
<i>B.—Chemical Analysis.</i>		
1	Aluminium—	18 0 0 per element
	(Silicon, copper and iron)	45 0 0 per set of the three elements named.
	Aluminium—	
	(Other elements)	24 0 0 per element.
2	Antimony (Estimation of Antimony)	24 0 0 per test.
3	Bronze, brass and similar alloys—	18 0 0 per element.
	(Copper, lead, tin, zinc, iron)	48 0 0 per set of elements named.
	Other elements	24 0 0 per element.
4	Copper (copper and arsenic)	24 0 0 per element.

Item.	Description of tests and analyses.	Charges.
		Ra. A. P.
5	Ferromanganese	18 0 0 per element.
	(Carbon, manganese, phosphorus)	45 0 0 per set of the three elements named.
6	Iron cast—	12 0 0 per element.
	(Combined carbon, graphite, silicon, manganese, sulphur and phosphorus.)	48 0 0 per set of five elements. 60 0 0 per set of six elements named.
7	Iron wrought or steel—	
	(Combined carbon, silicon manganese, sulphur and phosphorus.)	12 0 0 per element. 48 0 0 per set of five elements named.
8	Lead (Estimation of lead)	18 0 0 per test.
9	Solder (tin and lead)	18 0 0 per element.
10	Tin (Estimation of tin)	18 0 0 per test.
11	White metal	18 0 0 per element.
12	Zinc	18 0 0 per element.
13	Coal ash (ordinary full analysis)	72 0 0 per test.
14	Bauxite	72 0 0 per test.
15	Cement—	
	(a) per single estimation	12 0 0 per test.
	(b) Ordinary full analysis	48 0 0 per test.
16	Chromite (Chromium Sesquioxide)	24 0 0 per test.
17	Chromite (Silica)	18 0 0 per test.
18	Clay	72 0 0 per test.
19	Coal or coke (proximate analysis and calorific value)	30 0 0 per test.
20	Coal or coke calorific value only	18 0 0 per test.
21	Graphite plumbago	24 0 0 per test.
22	Lime, limestone, chalk, kunker	48 0 0 per test.
23	Magnesite, dolomite	48 0 0 per test.
24	Manganese ore (Manganese only)	24 0 0 per test.
25	*Water mineral analysis only	72 0 0 per test.

* NOTE.—Bacteriological examination of water is not undertaken. Water for drinking should be sent to the Public Health Laboratory of the Province.

Item.	Description of tests and analyses.	Charges.
II.—OILS, PAINTS, PIGMENTS AND MISCELLANEOUS.		
<i>A.—Physical Tests.</i>		
Lubricating Oils—		
		Rs. A. P.
	(a) Physical test of mineral oils	30 0 0 per test.
	(b) Physical test including saponification and acid values	45 0 0 „
	(c) Viscosity or flash point or other individual test only	7 8 0 „
<i>B.—Chemical analyses.</i>		
1	Vegetable and animal oils or fats	24 0 0 „
2	Kerosene	36 0 0 „
3	Oil fuel, crude oil, etc.	48 0 0 „
4	Petrol	30 0 0 „
5	Turpentine	30 0 0 „
6	Turpentine substitute	30 0 0 „
7	Greases	36 0 0 „
8	Dry colours and pigments	30 0 0 „
9	Stiff paints	60 0 0 „
10	Mixed paints	75 0 0 „
11	Varnish	30 0 0 „
12	Sulphuric acid (for accumulators)	36 0 0 „
13	Sulphate of alumina	30 0 0 „
14	Calcium chloride	24 0 0 „
15	Beeswax	30 0 0 „
16	Paraffin wax and candles	30 0 0 „
17	Bleaching powder (available chlorine only)	15 0 0 „
18	Creosote Oil	48 0 0 „
19	Glycerine	30 0 0 „
20	Glue	30 0 0 „
21	Lac Shellac	30 0 0 „
22	Pitch	30 0 0 „
23	Soap	30 0 0 „
24	Spirit, denatured or rectified	24 0 0 „
25	Sulphur	48 0 0 „
26	Coal tar to British Standard Specifications for road purposes	60 0 0 „

Item.	Description of tests and analyses.	Charges.
III.—BUILDING MATERIALS.		
RS. A. P.		
1	Portland Cement—	
	Series of tests to Standard Specification :—	
	(a) Physical test	48 0 0 per test.
	(b) Chemical test	48 0 0 „
	(c) Combined chemical and physical test	96 0 0
	(d) Setting test only	7 8 0 per test.
	(e) Expansion test only	7 8 0 „
2	Limes, natural cements, etc.—	
	(a) Physical test	48 0 0 „
	(b) Chemical test	48 0 0 „
	(c) Combined physical and chemical test	96 0 0
3	Sand—	
	(a) Tensile strength of mortar made with samples in comparison with standard sand.	45 0 0
	(b) Tensile test of cement mortar made with sample	22 8 0
	(c) Examination of sand to determine suitability as a substitute for Leighton Buzzard sand.	72 0 0
4	Stone, brick concrete, etc.—	
	(a) Compression test on three similar cubes or bricks (including preparation of specimens).	24 0 0
	NOTE.—Extra charges will be made for the preparation of very rough specimens for testing. These charges will be made according to the work involved.	
	(b) Absorption tests Permeation tests } per sample	7 8 0 per test.
5	Timber—	
	(a) Transverse test on prepared specimens	15 0 0 „
	(b) Shearing test on prepared specimens	15 0 0 „
	(c) Compression on prepared specimens	15 0 0 „
	NOTE.—Only the above tests are undertaken. Samples requiring further examination and testing should be sent to the Forest Research Institute, Dehra Dun.	
6	Stoneware pipes—	
	Examination and pressure tests to British Standard Specifications.	15 0 0 „

Item.	Description of tests and analyses	Charges.
		Rs. A. P.
IV.—MISCELLANEOUS TESTS.		
1	Tensile test of non-metallic rope	24 0 0 per test.
2	" " belting	15 0 0 "
3	" " cloth	15 0 0 "
4	" " string, cord, etc.	7 8 0 "
5	Couplings, drawhooks, chains, etc.—	
	(a) Proof test only	24 0 0 "
	(b) Proof and destruction tests	36 0 0 "
	(c) Impact test	48 0 0 "
	Pressure and vacuum gauges—	
	(a) For examination and calibration	12 0 0
	(b) For examination adjustment and re-calibration	24 0 0
EXPRESSION OF OPINION.		
1	For comprehensive report and expression of opinion or recommendations on results of analyses, tests or examinations.	25 per cent. of total experimental charges subject to a minimum charge of Rs. 24.

NOTE 1.—These charges are for work done in areas where inspection staff is located; additional charges to cover travelling and other expenses are leviable for tests and inspections made in other areas.

NOTE 2.—The rates specified in the Schedule are for single operations on samples of average ease of preparation. Special rates may be charged where preparation involves substantially more than the usual amount of work (e.g., owing to size of specimens from which test piece is to be cut or owing to unusual hardness of material), or whereof the test or analysis presents special difficulties (e.g., owing to the presence of disturbing element). On the other hand reductions may be made in the rates in suitable cases where preparation is very simple, or where several estimations or tests of the same kind are asked for at one time or are by previous arrangements to be made at regular intervals. The Superintendent of the Government Test House or the Metallurgical Inspector as the case may be will on request quote special rates to meet conditions described above.

NOTE 3.—The list of tests and analyses given in the Schedule is not exhaustive. Other mechanical tests and analyses can be made as required within the limits of the capacities of the machines and apparatus installed. These charges will be reasonably proportionate to those laid down in the Schedule and the Superintendent of the Government Test House or the Metallurgical Inspector as the case may be will, on request, quote rates for any special tests or analyses not specifically described in the Schedule.

NOTE 4.—The rates laid down are for tests and analyses made on Government-owned machines or with Government apparatus. If tests under Government supervision are required on privately-owned machines suitable modifications to meet the circumstances in each case will be made in the rates shown and will be intimated on receipt of specific request.

NOTE 5.—The rates specified cover all incidental charges connected with the receipt in and despatch from the Government Test House and the Metallurgical Inspectorate of samples sent for tests and analyses, other than railway freight, which will be a charge against the party on whose behalf the test is to be carried out.

PART II—INSPECTIONS.

Item.	Description of material and inspection.	Charges.												
1	<p>(a) Pig iron, steel ingots, blooms and billets</p> <p>NOTE.—This rate will be subject to modification in accordance with specification and contract under which material is supplied. Variations in rates will be intimated on receipt of full details.</p> <p>(b) Steel sections to British Engineering Standard or similar specification.</p> <p>(c) Rails and fish-plates of all sections to Railway Board or British Engineering Standard Specification.</p> <p>(d) Iron and steel castings of all descriptions.</p> <p>For inspection and necessary chemical analysis :—</p> <p>(i) For orders of 1,000 tons and upwards an inclusive charge (subject to a minimum charge of Rs. 2,000).</p> <p>(ii) For orders under 1,000 tons an inclusive charge of</p> <p>NOTE.—Tensile tests are not included in above fees and in cases where such tests are required and are carried out in Government-owned machines by the Government inspection staff, they will be charged for at rates prescribed in Part I of the Schedule. In the event however of such tests being made under the supervision of the Government inspection staff on other than Government-owned machines and appliances, the following charges for supervision will be made—</p> <table data-bbox="400 1451 1185 1720"> <tr> <td>(i) for tensile tests</td> <td>Rs. 5 0 0 per test.</td> </tr> <tr> <td>(ii) for compression tests</td> <td>5 0 0 per test.</td> </tr> <tr> <td>(iii) for deflection tests</td> <td>5 0 0 per test.</td> </tr> <tr> <td>(iv) for bend tests</td> <td>2 0 0 per test.</td> </tr> <tr> <td>(v) for impact tests on notched bars</td> <td>5 0 0 per test.</td> </tr> <tr> <td>(vi) for forging tests</td> <td>1 0 0 per test.</td> </tr> </table>	(i) for tensile tests	Rs. 5 0 0 per test.	(ii) for compression tests	5 0 0 per test.	(iii) for deflection tests	5 0 0 per test.	(iv) for bend tests	2 0 0 per test.	(v) for impact tests on notched bars	5 0 0 per test.	(vi) for forging tests	1 0 0 per test.	<p>Basic rate Re. 1 per ton of material accepted.</p> <p>Rs. 1-8-0 per ton of material accepted.</p> <p>Rs. 2 per ton of material accepted.</p> <p>Rs. A. P.</p>
(i) for tensile tests	Rs. 5 0 0 per test.													
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(iii) for deflection tests	5 0 0 per test.													
(iv) for bend tests	2 0 0 per test.													
(v) for impact tests on notched bars	5 0 0 per test.													
(vi) for forging tests	1 0 0 per test.													
2	<p>For inspections of engineering plant and materials of all descriptions other than those prescribed under item No. 1 above (including all ordinary Physical and Chemical tests of material and finished articles <i>see notes below</i>)</p>	<p>1 per cent. of the contract value of the materials subject to a minimum of Rs. 50. (<i>vide note 4</i>).</p>												

NOTES 1. The cost of confirmatory tests of materials to be used will be borne by the inspection department provided the material is acceptable. Should material so tested fail to comply with requirements, the cost of testing will be charged to the contractor at the rates prescribed in Part I of the Schedule.

2. Test of finished articles will be made on the contractor's premises provided approved appliances are available in the absence of such facilities the cost of testing on Government appliances is to be borne by the contractor.

3. The cost of special tests such as impact or fatigue tests of material or impact tests on couplings will be charged to the purchaser at rates prescribed in Part I of the Schedule unless specified to the contrary in the contract.

4. In the case of authorities who utilise the services of the Indian Stores Department regularly for the inspection of their materials the charge is assessed at 1 per cent. of the value of the material without any minimum charge.

The provisions contained in above notes should invariably be embodied in all contracts.