

APPENDIX - 1.19

(See paragraph 1.057)

**SYLLABUS FOR THE PROFESSIONAL
EXAMINATION IN ENGINEERING FOR
THE SUB-ENGINEERS (E/M) OF W.R.D. AND P.W.D.**

**PART - I
General**

1. Standard weights and measures of engineering materials required in mechanical field with their fundamental properties. Special attention to metric system.
2. Various types of precision instruments and gauges with their uses.
3. Lifting equipments e.g. cranes and their uses.
4. Various types of power transmission systems and their direct application with advantages and disadvantages.
5. Welding, soldering and brazing, heat treatment.
6. Tools in tool room and their application.
7. Various methods of speed governing of oil engines.
8. Various methods of water cooling adopted for oil engines.
9. Lubrication and servicing of automobile units.
10. Schedule of servicing.
11. Valuation of machinery.
12. Layout of machinery and erection of the same.
13. Various types of motive power, compressed air, combustion engines, electricity, gas, steam. Their various advantages and disadvantages.
14. Battery repairs, charging and servicing.
15. Electric system in mobile units.
16. Electric motors mainly induction type, their methods of starting, characteristics and application.

17. Use of air for machinery-air compressors and various types of pneumatic tools and their application.
18. The general construction of internal combustion engines, carburetters, electrical injection system, fuel pump and injection, governors and fuel controls, super charge.
19. General knowledge of Factory Act, Workmens' Compensation Act, store and labour organization, Wages Act.
20. P.E.R.T. and C.P.M. Technique.

PART - II**Workshop and Machines****(A) Workshop -**

- (1) Selection of site.
- (2) Layout of various shops like foundry, machines tools, smithy, general repairs and overhaul.
- (3) Selection of machinery and its application.
- (4) Screw-cutting, gear-cutting.
- (5) Heat treatment.
- (6) Stress and strain.
- (7) Permissible Limits and tolerances.
- (8) Foundry practice.
- (9) Methods of cost-finding.
- (10) Estimation of the work.
- (11) Different rate systems.
- (12) Stores accounts and ledger system
- (13) Stock-taking of stores and spares.
- (14) Labour problem.
- (15) Commercial correspondence.

(B) Earth-moving machinery (for W.R.D. only) --

- (1) Selection of machinery for earthen dam, clearing site. Foundation excavation.
- (2) Machinery required for construction of canals.
- (3) Repairs and maintenance of earth-moving machinery.
- (4) Use of excavators, draglines, shovels.

- (5) Application of scrapers, loader.
- (6) Overhaul and repairs and Schedule of Servicing.
- (7) Tools required for overhauls.
- (8) Defects (general).
- (9) Field servicing.
- (9) Cost accounting of the work done.

(C) Mechanically propelled vehicles --

- (1) Selection of, and their particular use.
- (2) Equipments for field servicing.
- (3) Principles of two and four-stroke cycles, ignition system.
- (4) Lubrication and lubricants.
- (5) Schedules of servicing.
- (6) Instructions for running new and overhauled vehicles.
- (7) Transport rules and regulations.

(D) Stationery Plants -

- (1) Layout of pumping plants.
- (2) Selection of pumping units.
- (3) General maintenance.
- (4) Erection.
- (5) Points to be observed during inspection.
- (6) Different types of pumps and their application.
- (7) Application of pneumatic machines and tools.
- (8) Their maintenance and repairs.
- (9) Air-lift pumping.

PART - III**Boring**

- (1) Fundamental principles of boring.
- (2) Types of boring machines and their application.
- (3) Types of bores.
- (4) Geological strata.
- (5) Methods to obtain and record the under-ground rate of flow of water.
- (6) Methods to test the yield of bores.
- (7) Methods to test the verticality of the bore.
- (8) Estimation of the cost of bores.
- (9) Selection of boring plant.
- (10) Developing a bore.
- (11) Hand pumps.
- (12) Bore-hole pumps.
- (13) Air-lift pumps.
- (14) Reciprocating pumps.
- (15) Methods used for clearing the bores.

PART - IV**Electrical Engineering**

- (1) Difference between A.C. & D.C. currents.
- (2) Domestic & Industrial wiring system.
- (3) Transmission system H.T. and L.T.

- (4) Single phase and three phase electric motor and Generator with protection devices.
- (5) Various types of starters and their specific applications alongwith the essential electrical components.
- (6) Electric cables and wires and their selection for various electrical works.
- (7) Electrical maintenance system, precautions for eliminating accidents and losses.
- (8) General knowledge about electrical instruments and measurements.

PART - V

Gates (for W.R.D. only)

- (1) Types of gates and their application.
- (2) Maintenance and repairs and inspection of gates.
- (3) Various types of sealing arrangements preferred in the gate manufacture.
- (4) Types of hoisting devices and their specific application.
- (5) Erection and alignment of gates.
- (6) General design of civil structures and the essential provision for easy maintenance of vertically lifting gates.

PART - VI (for P.W.D. only)

- (1) Operation and maintenance of Road rollers/concrete mixers/vibrators.
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APPENDIX 1.20

(See paragraph 1.058)

**RULES AND SYLLABUS FOR THE EXAMINATION OF CANDIDATES
QUALIFYING FOR SUPERIOR CLERKSHIP IN THE WORKS DEPARTMENT**

- (1) (a) The examination will be held every year in the 3rd week of October. It will not however, be held in any year in which the number of candidates permitted to appear is less than 10.
 - (b) No Clerk should be permitted to sit for the examination unless he has completed minimum 5 years of continuous service.
 - (c) A candidate who has been admitted but fails to appear will be considered to have appeared and failed unless his written explanation which must be submitted prior to the date of the examination, is accepted by the S.E./C.E./E.-in-C. No candidate will be allowed to appear for the examination more than four times at Government cost.
 - (d) The subjects for the examination are :-
 - (i) Drafting (Hindi) - one paper;
 - (ii) Precis writing (Hindi)- one paper;
 - (iii) Establishment - Two papers;
 - (iv) Public Works-Accounts- Two papers.
- (2). For drafting and precis writing no books are prescribed. For the examination in drafting certain notes or correspondence or both, are provided and the candidate is required to prepare a draft based on them and on such instructions as may be given by the examiner.
 - (3). (a) The object of a precis is to enable any one without reading the correspondence to master the important points of the correspondence. The precis should be in simple language and grammatically correct. It should contain all that is (and nothing that is not) important in the correspondence, presented in the form of a consecutive narrative (without marginal reference) as briefly as is consistent with perfect clearness. It should be written as far as possible in the candidates own words. Attention should be paid to neatness, handwriting, spelling, grammar and style.
 - (b) The following instructions are issued for the information of candidates appearing at the examination :-

- (i) A rough draft of the precis should first be made;
 - (ii) Abbreviations must not be used;
 - (iii) No marginal references are admissible;
 - (iv) Some idea of the dates should be given, but too many dates are to be avoided;
 - (v) The precis should be in the form of a consecutive narrative.
 - (vi) The position of a person is important. His name usually is not.
 - (vii) A full heading should be entered and an ample margin allowed.
 - (viii) Vague and general statement must be avoided.
 - (ix) Adjectives should be used sparingly.
- (4) In each of the other two subjects two papers are prescribed viz. one without books which will be an easy memory test, and the other with books which will be more difficult. The following books should be studied :-

Establishment

- (a) C.G. Fundamental Rules, Vol. I and II and the State Government's Supplementary Rules thereto.
- (b) C.G. Works Department Manual - 2005.
- (c) M.P. Civil Services (Pension) Rules, 1976.
- (d) M.P. Civil Services (Leave) Rules, 1977.

Accounts

- (a) C.G. Works Department Manual - 2005.
- (b) M.P. Civil Services (Pension) Rules, 1976.
- (c) Central Public Works Accounts Code.
- (d) M.P. Financial Code Vol. I and II.

Note:- (1) Candidates are required to attain that standard of knowledge of establishment and accounts required by Divisional Accountants. It is not necessary, therefore, that they should be acquainted with special rules applicable only to officers of the All India or State Services.

- (2) No question will be set on those portions of the W.D. Manual and the C.P.W.A.C. which deal exclusively with administrative or technical matters. Candidates need not, therefore, study them.
- (3) Question papers in Establishment Rules and Public works Accounts may be answered in Hindi or English.

Conduct of Examination

- (5) The examination will be conducted as under :-

1st day	1.	Drafting	10 A.M. to 1 P.M.
	2.	Precis writing	2 P.M. to 5 P.M.
2nd day	3.	Establishment (without books).	10 A.M. to 1 P.M.
	4.	Accounts (without books).	2 P.M. to 5 P.M.
3rd day	5.	Establishment (with books).	10 A.M. to 1 P.M.
	6.	Accounts (with books)	2 P.M. to 5 P.M.

Note - The question papers in Establishment and Accounts will have ten questions out of which the candidates will have to answer six of which one will be compulsory.

- (6) The maximum number of marks for each paper is 100 and the minimum for securing a pass is 50, except in the 3rd and 4th papers for which the minimum is 60.
- (7). Candidates for the examination should apply through the Heads of their Offices to the E.-in-C. by the 31st July. The S.E./C.E. concerned will forward the original application with his recommendations in the form given in Appendix 1.36 by 20th August. The examination will be conducted by E.-in-C. He will set the question papers and do valuation of answer books in Precis writing and Drafting. He will arrange with the A.G. for setting the question papers in Establishment and Accounts and valuation of answer books.
- (8) The results of the examination will be declared as far as possible within 2 months by the E.-in-C. and intimated to each candidate through departmental channel.

APPENDIX 1.21

(See paragraph 1.049)

REGISTER OF CASUAL LEAVE

Name of Office:..... Calendar Year:

Serial No.	Name and rank of Official to whom casual leave has been granted	Date on which leave begins	Date on which leave ends	Total number of days availed	Progressive total of the number of days availed during the year	Dated initials of the head of the office /gazetted officer	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

APPENDIX 1.22

(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES OF
ENGINEER - IN - CHIEF**

The Engineer-in-Chief is the professional adviser to Government and his function is to co-ordinate the work of Chief Engineers which include -

- (1) Planning
 - (2) Budgetting
 - (3) Establishment
 - (4) Plant & Machinery
 - (5) Works
 - (6) General Policy matters.
 - (7) Research & Development activities.
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APPENDIX 1.23**(See paragraph 1.129)****DUTIES, FUNCTIONS AND RESPONSIBILITIES OF
CHIEF ENGINEER, BASIN/ZONE/PROJECT ETC.****(1) General :**

- (a) The Chief Engineer is the Head of Department in respect of his Basin/Zone/Project etc. He is the professional advisor to Government on Public Works and responsible for the efficient working of the department so far as it relates to his Basin/Zone/Project.
- (b) He will be responsible for the management of following within his Zone / Basin /Project :-
 - (i) Planning
 - (ii) Budgetting
 - (iii) Establishment
 - (iv) Plant & Machinery
 - (v) Works
 - (vi) General Policy as laid down by competent authority.
 - (vii) Research & Development activities

He will work in co-ordination with other C.Es. and E.-in-C.

(2) Control over personnel :

- (a) He will exercise full control over the personnel working in his Zone/Basin/Project and will have full powers to make transfers and postings of officer up to the level of A.Es. and other staff on the non-gazetted establishment from one circle of superintendence to another within his Basin/ Zone/ Project etc. In respect of transfers of officers and subordinate staff outside his Basin/Zone/Project, he will submit proposals to the E-in-C.
- (b) The C.E. will exercise concurrent control over the duties of the officers of the department in connection with the maintenance of accounts and will give all legitimate support to the A.G. in enforcing the disbursements of money, the custody of stores and submission of accounts. He will have no authority over the A.G. in regard to audit matters but will have a claim on him for assistance and a advice in matters relating to accounts and finance. At the same time the C.E. will be bound to

arrange that the A.G. is kept fully cognizant of all proceedings and proposals to enable the latter to fulfill his functions

(3) **Budget expenditure and revenue :**

The C.E. Shall, -

- (a) Prepare annually the budget estimate relating to the works and establishment under his control as per time schedule fixed by the competent authority;
- (b) Submit Administrative Report pertaining to his zone to Government under intimation to E.-in-C.
- (c) Administer the budget allotment and see that the allotment of the year is expended so far as it is consistent with general economy and the prevention of large expenditure in the last months of the year for sole purpose of avoiding lapses. He will further see that any money not likely to be needed during the year is promptly surrendered;
- (d) Inspect annually every Circle Office under him and record the findings in format printed in Appendix 4.12 . He will also inspect every Division Office once in four years and record the findings in format of Appendix 4.13.

APPENDIX 1.24
(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES OF
SUPERINTENDING ENGINEER (CIVIL) IN CHARGE OF
CIRCLE/DIRECTORATE**

(1) General

- (a) The superintending Engineer in charge of a Circle is responsible to his Chief Engineer for the administration and control of public works, design, research within his Circle/Directorate. His sphere of duty is comprehensive including planning, investigation, construction and maintenance of all engineering works in his Circle. He will carry out his responsibilities in these matters through the subordinate officers under his control in the best manner required under the rules.
- (b) The S.E. will receive orders only from Government, Departmental superiors, and such authorities duly empowered.

(2) Control over personnel

- (a) The S.E. will have full control over the personnel working in his Circle/Directorate except those which are exercised by higher authorities. The transfers and postings of Class II and III establishment subordinate to him may be made by the S.E. within his Circle. He may also recommend to C.E. transfer of the members of these establishments as well as of E.Es. from his Circle.
- (b) The S.E. is required to ascertain the efficiency of the subordinate offices and petty establishment and to satisfy himself from time to time that staff employed in each Division is actually necessary and is adequate for its management.

(3) Inspection of Divisional Office

- (a) He will inspect every Division Office at least once in a year and forward to the C.E. the result of such inspection in the format printed in Appendix 4.13. He will also inspect every sub-Division office once in four years and record the findings in format of Appendix 4.14.

Note. - Although the A.G. is required to inspect the initial and subsidiary accounts maintained in disbursing offices, this does not relieve the S.E. from his responsibility of the maintenance of the authorised system of accounts throughout his Circle. The A.G. and S.E. should assist each other in the management of the accounts of the department as perfect as possible.

- (b) The S.E. shall investigate excesses over subheads and if a revised estimate is considered necessary, he shall obtain and submit such an estimate to the sanctioning authority in due time.

(4) **Supervision of works**

- (a) The S.E. should inspect the state of the various works periodically and satisfy himself that the system of management prevailing is efficient and economical, that the different articles in store are duly verified according to the rules laid down, and that there is no accumulation of stock in any Division beyond its requirements. He is also responsible that no delay is allowed to occur in the submission of completion reports.
 - (b) Supervision and control of the assessment of revenue and its recovery within his Circle will rest with him.
 - (c) The S.E. shall prepare a schedule of rates for works executed in his Circle and update the same on the basis of the prevailing rates in each locality.
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APPENDIX 1.25

(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES OF
EXECUTIVE ENGINEER IN CHARGE
OF DIVISION**

(1) General

- (a) The Executive Engineer in charge of a Division is responsible to his Superintending Engineer/Chief Engineer (where circle does not exist) for the execution and arrangement of all works within his Division.
- (b) His duties are comprehensive and include planning, investigation, construction and maintenance of all engineering works entrusted to his charge and accounts of expenditure relating there to as laid down in the rules. In particular he shall :-
 - (i) Ensure that no work is started without sanctioned detailed estimate and no expenditure is incurred without obtaining funds;
 - (ii) Ensure that expenditure proposed during the financial year or different working seasons is based on such estimates so that a detailed review of progress subsequently is possible with reference to these estimates ;
 - (iii) Review programmes each year during June-September or as fixed by S.E. and revise them in the light of the progress ;
 - (iv) Periodically review physical and financial progress against such programmes ;
 - (v) Assess likely requirement of materials for projects and decide programme of procurement for different years ;
 - (vi) Workout the requirement of land for work, quarries and drawup programme for land acquisition/ land transfer with a view to ensure transfer of required land before target date set for starting of works ;
 - (vii) Draw-up programme of testing of construction materials at laboratories;
 - (viii) See that final bills of contractors are prepared in due time within 2 to 3 months of the completion of works by the contractor and paid as early as possible in accordance with the terms of agreement ;
 - (ix) Ensure that stage II estimate, working drawings, completion drawings are prepared well in time ;

- (x) Ensure that the requirement of stores for each work in progress is assessed by subordinates on proper lines according to systems laid down;
- (xi) Ensure that no purchase is made without sanction of concerned estimates, availability of funds and approval of competent P.C. ;
- (xii) Ensure that procedure prescribed in the store purchase rules for procurement is followed ;
- (xiii) Ensure issue of materials to contractors strictly in accordance with requirements and terms of contract and that recovery of cost of such materials against contract works is made as early as possible and not left till the final payments to contractors ;
- (xiv) Ensure that prescribed annual stock takings are done in respect of all the stores such as Sub-Divisional stores and the Sub-Engineer's materials at site accounts and carryout surprise checks from time to time ;
- (xv) Carry out necessary exercises/checks as prescribed for Tools and Plant, mathematical, drawing and survey instruments;
- (xvi) Ensure that stock limit fixed for the Division is not exceeded ;
- (xvii) Ensure that a programme of maintenance for the next working season is drawn up ;
- (xviii) Ensure that annual repairs estimates are sanctioned before actual execution of the work ;
- (xix) Prepare completion drawings promptly whenever special repairs/remodelling works were undertaken ;
- (xx) Ensure that account of maintenance expenditure is maintained in the prescribed expenditure register for each Sub-Division for all the schemes in operation ;
- (xxi) Ensure that total expenditure on maintenance for different components does not exceed the prescribed norms and limits ;
- (xxii) Ensure that funds for maintenance are not diverted for any other item of work without the sanction of competent authority ;
- (xxiii) Ensure that timely action is taken for the removal of encroachments from the lands belonging to works departments specially along roads and canals ;

- (xxiv) Ensure that any construction whether temporary or permanent, on water lines, sewer mains etc. are brought to the notice of the S.E. and Collector promptly for further action.
 - (xxv) Send proposals to the S.E. for the revision of scheduled rate for any item when found necessary.
- (1) **Control over Staff** - An Executive Engineer may transfer the establishment within his Division as per delegation of powers. He may also recommend transfer of A.Es./Sub- Engineers under him within or out of his Division.
 - (2) **Relations with other Officers** - The Executive Engineer will receive orders only from Government, departmental superiors, Collector of the district and other authorities duly empowered.
 - (3) **Works** - (a) He will carry out frequent inspections of the work, and the periodical inspections as provided in the Manual.
 - (b) Soon after a work under construction is completed or abandoned, he should close accounts and prepare the completion report.
 - (5) **Accounts** - (a) The Executive Engineer should obtain funds for the work under his control, keep and compile accounts and submit them punctually to the audit officer under the rules for the time being in force.
 - (b) He should administer the grant for public works in his Division and to watch the progress of expenditure to ensure against excess. If additional funds are required an application for them should be made in good time.
 - (c) The E.E. is responsible for the correctness of original records of cash and stores, receipts and expenditure as also regular posting of accounts.
 - (d) In the matter of accounts, he will be assisted by the D.A.
 - (e) He is responsible for the assessment of the revenue from works within his Division and will maintain the necessary records and accounts for the purpose.
 - (f) He will submit a report to the Superintending Engineer/ Chief Engineer at the end of each working season on the condition of the survey and mathematical instruments in his Division, making good any damage or loss due to neglect or carelessness from the party concerned.

(g) He should report to the Superintending Engineer/ C.E. any probability of excess over the estimated cost of a work and in the case of excess on a subhead.

(6) **Accidents :**

He should report immediately to the S.E./ C.E. any important accident or unusual occurrence connected with his Division and state what action he has taken.

(7) **Inspection of Sub-Divisional Offices-** He will inspect the Sub-Division Offices under him once in a year and submit a report of his inspection in the prescribed form printed in Appendix 4.14

APPENDIX 1.26
(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES OF
ASSISTANT ENGINEER IN CHARGE
OF SUB-DIVISION**

- (1) The Assistant Engineer in charge of a Sub-Division is responsible not only for proper execution of works which are entrusted to his charge but also for the correctness and validity of the financial transactions connected therewith. He shall carry out his functions and responsibilities through his sub-ordinates in accordance with the approved specifications, designs, drawings and rules and instructions in the departmental codes, manuals, technical circulars etc. in force from time to time.
- (2) Government in revenue department in exercise of the powers conferred by Section 19(2) of The Land Revenue Code 1959 (20 of 1959) have declared the Canal Deputy Collectors and the Sub-Divisional Officers of the water Resources Department as Additional Tahsildars to exercise the powers for recovery of arrears under Land Revenue Code within their respective jurisdiction.
- (3) The A.E. shall -
 - (a) Carry out survey and investigation of projects/schemes as per directions of his superior officers and prepare drawings.
 - (b) Shall not start or incur expenditure on any work without proper authority.
 - (c) Check the initial ground levels himself and layout before start of work.
 - (d) Check measurements and classification of soils during excavation.
 - (e) Report to higher authorities for further guidance in case of any variation in strata with respect to approved drawing.
 - (f) Ensure proper quality control in all items of work, including supplies and collection of material at work site.
 - (g) Permit no deviations from the approved drawings or specifications without orders of competent authority.
 - (h) Ensure that in case of departmental works arrangement of men and material is adequate to maintain progress according to time schedule.
 - (i) Inspect the works and ensure that necessary action/repairs are carried out well in time.
 - (j) Maintain a site order book at every work in progress.

- (k) Prepare final bills of contractors latest within three month of completion of work and submit the same to E.E.
- (l) Submit completion drawings of works within 2 months of their completion.
- (m) Submit the monthly accounts to Division Office according to rules.
- (n) Keep control and watch over departmental labour to ensure that it is not excessive to requirement.
- (o) Maintain accounts and other registers prescribed under the rules correctly and up to date.
- (p) See that the muster rolls, the bills of contractors, suppliers etc. are paid/ submitted promptly.
- (q) Assess and intimate the requirement of stores for each work well in advance for procurement action by higher authorities and competent purchase committees.
- (r) Keep stock of materials to the minimum of requirement and within prescribed limits.
- (s) Intimate surplus stores as well as unserviceable material in stock.
- (t) Take due precautions for the care, custody and upkeep of stores in his charge guarding against loss, damage theft and pilferage.
- (u) See that the materials at site are properly cared for and regular material at site accounts are submitted by his subordinates every month.
- (v) Carryout physical verification of stores, machinery Tools and Plants, M.A.S. accounts, road metal balances, bungalow furniture and crockery, etc. as prescribed under the rules and submit returns to Executive Engineer on due dates.
- (w) Carryout surprise checks of important items of stores from time to time.
- (x) See that assessment and recovery of revenue is done by concerned staff according to rules and remitted into treasury and carry out surprise checks.

- (y) Take action for timely distribution of water as per requirements.
 - (z) Take action for timely auction of leases for miscellaneous revenue.
 - (aa) Supervise the collection of revenue.
 - (bb) Take action to prevent encroachments on Government lands.
- (4) In the Water Resources Department the duties of C.D.C. are in many respects shared by the S.D.O. It is, therefore, essential that both should assist each other.
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APPENDIX 1.27

(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES OF
S.D.O. E/M INCHARGE OF FIELD FORMATION**

The S.D.O. E/M in charge of a Sub-Division shall generally carry out his functions and responsibilities as laid down in the relevant chapters of W.D. Manual, C.P.W.A. Code, Fundamental Rules and S.Rs. framed thereunder, Financial Code and Treasury Code. In particulars he shall, -

- (1) Ensure the proper utilisation of machines kept in his charge on works as per the directions of his E.E. and see that no machine remains idle except in the case of repairs or break down.
- (2) Intimate sufficiently in advance of the commencement of the machines, to be ready after repairs.
- (3) Report to E.E. E/M under intimation to E.E. (Civil) about the machines remaining idle for want of work or the additional requirements, if any, for the allotted work.
- (4) Frame working estimates for machines against works allotted to his Sub-Division and submit the same to his E.E. for sanction before actual deployment of machines and before taking up the works.
- (5) Frame estimates of repairs to machines and submit the same for sanction to his E.E. (No repair work should be carried out without a sanctioned estimate and without allotment of funds).
- (6) Submit requirement of fast moving spare-parts well-in-time for procurement action by higher authorities and competent purchase committees.
- (7) Maintain programme and up to date record of expenditure on repairs.
- (8) Maintain progressive account of proforma reserve fund in respect of each machine.
- (9) Ensure proper maintenance of log books and history sheets of machines.
- (10) Maintain complete and up-to-date inventory of all machines in his charge and submit the information to his E.E. immediately whenever a change on account of transfer of machines or any addition has taken place.
- (11) Carry out periodical inspection of stores and frame proposal for disposal of surplus stores/unserviceable store, obsolete spare parts as well as that of

condemned machines as per procedure laid down by Government in this regard.

- (12) Ensure that the worn out and unserviceable parts and components of machines which are replaced by new ones are brought back to stores and a proper account is kept.
 - (13) Ensure carrying out the preventive maintenance of machines.
 - (14) Carry out erection and maintenance of all gates in his jurisdiction.
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APPENDIX 1.28

(See paragraph 1.129)

**FUNCTIONS, DUTIES AND RESPONSIBILITIES OF
SUB-ENGINEER/SECTION OFFICER**

- (1) The Sub-Engineer/S.O. is the official at work site and is the primary executive functionary of the Department. In irrigation revenue matters, he is subject to the control of the I.I./C.D.C. In other matters including the distribution of water he is subordinate to the S.D.O.
- (2) He shall -
 - (a) Collect data, conduct, survey, investigation and prepare estimates and drawings where necessary for works on instructions from his superiors ;
 - (b) Incur any expenditure only with authority from the Assistant Engineer ;
 - (c) Ensure that the works in his charge are carried out according to specifications, technical and other instructions of the Department and the terms of contract ;
 - (d) Prepare and submit the prescribed periodical progress reports ;
 - (e) Ensure by frequent inspection proper maintenance of works and provide the prescribed services to the public timely;
 - (f) See that the public property and utility services are not used unauthorisedly. He shall obtain instructions from the Assistant Engineer wherever necessary ;
 - (g) In case of emergency situation like breaches ,breakdown of public utility services, stay at work site and act promptly to restrict spread of the damages and restore normalcy . He shall report the situation to the Assistant Engineer immediately;
 - (h) Collect revenue timely when authorised;
 - (i) During the execution of work either departmentally or on contract and operation of plant and machinery, always bear in mind and ensure safety requirement especially in excavation, blasting operation, centering work, scaffolding etc. and take suitable precaution to avoid accidents ;
 - (j) Report to the nearest police station as well as to his Assistant Engineer, cases of accidents, deaths on work immediately on occurring;
 - (k) Maintain material at site account in respect of the material received by him for works, road metal returns, T. & P. account, furniture and crockery accounts of circuit houses, rest houses etc., store accounts and submit the same to Assistant

Engineer every month. (This is one of the very important duties of the Sub-Engineer) ;

- (l) Make adequate security arrangements for safety against loss or damages ;
 - (m) Not issue any stores or tools and plants without proper authority and without obtaining proper receipts ;
 - (n) Carry out physical verification of the store, tools and plants, M.A.S. account, road metal balances and furniture and crockery of circuit houses, rest houses etc. in his charge, as laid down in the Works Department Manual and report the result to his Assistant Engineer on due dates ;
 - (o) See that mathematical and survey instruments, when not in use, are carefully stored, duly dusted and cleaned and kept in their boxes. protected from moisture to avoid damage. Any damage, should be reported to the Assistant Engineer in time ;
 - (p) Make himself fully conversant with the rules regarding muster rolls. measurement books. Store accounts, M.A.S. accounts. T & P accounts road metal returns, furniture and crockery of circuit houses, rest houses, etc. and comply with the same.
 - (q) Take measurements of each and every item of all on going construction, S & I and maintenance works in his jurisdiction as early as possible and should be recorded directly on the respective measurement books / Level Books
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APPENDIX 1.29

(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES OF
ACCOUNTS OFFICER**

The duties and responsibilities of Accounts Officers will be as follows :-

(1) As Accounts officer

- (a) He shall supervise the various financial matters and see that they are in accordance with the F.Rs. and S.Rs. Pension Rules, etc.
- (b) He shall be responsible for maintenance of accounts, and ensure that these are maintained in accordance with the prescribed rules i.e. C.G. Treasury Code, C.G. Financial Code, rules regarding financial delegations, C.P.W.A. Code and Departmental Manual, etc.
- (c) He shall see that pay bills, T.A. bills and contingent bills in the Chief Engineer's/ E-in-C's Office are properly prepared and registers of contingency expenditure are properly maintained.
- (d) He shall inspect periodically (at least once in a year) the account records of Circle Offices, check a percentage of their accounts and to report the defects to the C.E. for orders. It will also be his duty to explain personally to the C.E. any defects in procedure and advise regarding issue of instructions for the removal of such defects.
- (e) He shall ensure that audit observations and matters relating to Public Accounts Committee are replied promptly and with a due sense of responsibility and that the defects, deficiencies, omissions and irregularities are removed and to advise the E-in-C./ C.E. on measures necessary to see that such defects do not persist.
- (f) He shall as an agent of the E.-in-C/C.E. to ensure that the subordinate offices exercise vigilance in incurring contingency expenditure.
- (g) He shall see that proper accounts are maintained in all establishments of the department of all article of stores and stock purchased or otherwise acquired for the use of the department and that the rules and orders governing the acquisition, stocking and utilisation of these articles are strictly observed by all concerned.
- (h) He shall ensure proper reconciliation and agreements of departmental figures of receipts and payment with those of the Accountant General.

(2) As Internal Audit Officer

- (a) He shall advise the C.E./E-in-C. Regarding the rules and orders in force to enable their observance and to ensure that no financial irregularity of any kind is committed.
- (b) He shall bring to the notice of the C.E./E.-in-C. along with a statement of his reasons, any transaction or order affecting receipts or expenditure which is such as would be objected by the Accountant General and obtain his orders.
- (c) He shall maintain a collection of all the Government orders issued from time to time by Finance Department and by the Administrative Department containing general instructions of financial nature.
- (d) He shall see that the instructions issued by Government from time to time relating to the drawal of T.A. are followed and to bring any glaring case of non-observance of these instructions to the notice of the C.E./E.-in-C. with suggestions for their rectification.
- (e) He shall assist the C.E./E.-in-C. in ensuring that the rules relating to contingent expenditure are not infringed.
- (f) He shall assist the C.E./E.-in-C. in the scrutiny and processing of claims of contractors/suppliers.
- (g) He shall examine all cases of embezzlement, theft and loss of Government property or stores and advise the head of office about action to be taken in such cases.
- (h) He shall examine all cases of abandonment of revenue and waiver of claims before formal orders are recorded by the competent authority.
- (i) He shall be responsible for settlement of objections from Accountant General.
- (j) He shall monitor the departmental revenue and other dues.

(3) As Financial Advisor

- (a) He shall advise the C.E./E.-in-C. in all matters relating to accounts and budget estimates and financial matters.
- (b) He shall bring to the notice of the C.E./E.-in-C. regarding cases of wasteful expenditure.
- (c) He shall examine proposals referred to him by the head of office with a view to secure that the proposed expenditure is reasonable and unavoidable, that it is within the power of sanction of the appropriate departmental authority and that proposals not so covered are referred to Government for sanction.

- (d) He shall advise the head of the office on all proposals relating to grants in aid procedure and early release of grants.
- (e) He shall scrutinize carefully the budget estimate and proposals for additional funds to ensure accuracy of figures to be adopted.
- (f) He shall examine the budget estimates on the basis of actual requirements of the department with a view to enable the C.E./E.-in-C. to ensure that large savings or excesses are avoided.
- (g) He shall see particularly that in the closing months of the year, there is no unjustified heavy rush of expenditure and that expenditure for which provision does not exist in the budget or which may lead to the budget provision being exceeded is not incurred.
- (h) He shall advise C.E./E.-in-C. regarding measures to avoid any expenditure in excess of the budget grant.
- (i) He shall ensure that surrenders or savings are made to the Finance Department in proper time.

APPENDIX 1.30

(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES OF
DIVISIONAL ACCOUNTANT**

- (1) The Divisional Accountant is posted by the Accountant General in each division Office to assist the E.E. in the discharge of his responsibilities relating to accounts and financial transactions. His functions are threefold viz. (i) compiler of accounts, (ii) internal checker of initial accounts, (iii) financial assistant and advisor to the Divisional Officer in all matters relating to the accounts and budget estimates or to the operation of financial rules generally.
- (2) Detailed instructions on the functions, duties, and responsibilities of the D.A. are contained in the C.P.W.A. Code vide paragraphs 4.2.2. to 4.2.7, 4.5.4, 9.3.4, 9.3.5, 10.2.9, 10.7.7, 17.2.9, 22.1.3, 22.1.1, to 22.2.12, 22.4.2, 22.4.8, 22.4.21, 22.4.26, 22.4.31, 22.4.32, 23.1.1 etc.
- (3) He is personally responsible to see that the monthly accounts relating to the Division are sent to the Accountant General on the due date. Detailed instructions in this behalf are given in Chapter 4 of CPWA Code.
- (4) The Divisional Accountant should exercise proper check and supervision over the work of staff posted under him. At the same time he should guide the staff posted under him and see that the work of the E.E. as far as they relate to his functions and responsibilities is carried out smoothly and efficiently.

APPENDIX 1.31

(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES
OF CANAL DEPUTY COLLECTOR**

- (1) The C.D.C. is the revenue assistant of the E.E. He occupies in the division a position analogous to that of an S.D.O.
- (2) He is responsible for all assessment and must ensure that the revenue records and registers of the division office are properly maintained.
- (3) He should be gazetted as a magistrate to try cases under the M.P. Irrigation Act.
- (4) He is responsible for the supervision of the collection of irrigation revenue. He should check irrigation agreements once a year to ensure their correctness and safe custody, and must submit annually, on the 1st June, a certificate of check to the E.E.
- (5) The revenue establishment of the division is immediately subordinate to the C.D.C. to the extent to which, and in regard to all matters for which, he is responsible. In regard to all other matters, the revenue establishment is subordinate to the S.D.O. The C.D.C. must, however, check the work of this establishment and report defects and malpractices to the E.E.
- (6) The duties of the C.D.C. are in many respects **shared by the S.D.O.** It is, therefore, essential that both should assist each other.

Note - For other duties, see Executive Instructions under the M.P. Irrigation Act (III of 1931).

APPENDIX 1.32

(See paragraph 1.129)

DUTIES, FUNCTIONS AND RESPONSIBILITIES OF IRRIGATION INSPECTOR

- (1) The I.I. is responsible for the irrigation revenue work of the amins and the S.O./ sub engineer and also for the general supervision of the maintenance work in their charge.
- (2) In revenue matters, he is subordinate to the C.D.C. In other matters, including the distribution of water, he is subordinate to the S.D.O.

APPENDIX 1.32-A

(See paragraph 1.129)

**DUTIES, FUNCTIONS AND RESPONSIBILITIES
OF IRRIGATION AMIN**

1. The duties of Amin are -
 - (a) to prepare initial records of irrigation and assessment
 - (b) to prepare and deliver parchas to cultivators in accordance with executive instruction No. 2 under Section 59, 62, 63 and 93 of the Irrigation Act ;
 - (c) to maintain a record of gauges in the channels in his halka in form shown in Appendix 1.37.
2. He will maintain a diary showing the work done by him daily and submit copies to the C.D.C. and S.D.O. through the I.I. and S.O. respectively.