Public Works (1898) Department.

G.O., No. 1467 W

Dated 13th June 98

[Despatch Abstract.]

Examinations to be passed by Lieutenants of Royal Engineers. Letter from the Secy of State for India stating that all Lieutenants of Royal Engineers in the Army who have not previously qualified technically for promotion will be required to pass the Technical Examinations before promotion to the rank of Captain, & forwarding a Set of typical Questions for the Examinations, Vendes with remarks.

SS

Indexed. 2/11/98

P. W. 25.
1,000—2-3-98

BACK PAPERS.

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

FURTHER PAPERS.

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

Public Works Department.

CURRENT No. 4610

B N-1467 W 8/13 2nd Jan 98 **From** The Govt of India P.W.D.

Order

Recorded, the instruction in the last para of the Govt of India Circular being noted.

A.G.K. 7-6-98.

Cr

6.6.98

No. Circular 7 P.W.

Dated 6th May 1898

Received 23rd do

Registered 30.5.98

Enclosures 7

Spare copies 3

note There are now no Lieuts. R.E. in the Madras Prod.

Cr

SUBJECT.

Stating that with effect from the 1st April 1899 all Lieutenants of Royal Engineers employed in the P.W.D who have not previously qualified technically for promotion under existing regulations will be required to pass the "Active Service" project before promotion to the rank of Captain.

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[P. W. 29. 1,000—7-12-97.] 34 2/6/98 C 9/6

BACK PAPERS.

No.	Date.
36h gw	19-12-96
2229 w	3-8-96
141 w	14-1-96

FURTHER PAPERS.

No.	

MEMORANDUM.

In reference to Corps Memorandum, No. 599 of 1st October 1896, respecting the technical qualifications of Lieutenants, Royal Engineers, for promotion— Engineers. 1024

(1) With a view to securing uniformity in the character of the questions set under paragraph 3(*b*) a set of six questions, to serve as types, have been framed and are promulgated herewith, as a guide in framing the questions to be set.

(2) It is to be distinctly understood that these type questions themselves are on no account to be set, but are merely to be regarded as types.

W. SALMOND,
Deputy Adjutant General, R.E.

WAR OFFICE,
24th January 1898.

G. C. Press, Simla.—No. 190 P. W. D.—10-5-98.—1,517.

DEFENSIBLE PICQUET POST.

*Lieutenant*_____, *R.E.*

A portion of the Chatham garrison, amounting to 1,200 men, with Field Artillery, has been ordered to take up a defensive position to cover Chattenden from a force of Infantry about 2,000 strong, advancing from the direction of Egypt Bay.

You will proceed to the ground ×, marked on the accompanying map, at Chattenden Farm, and arrange for a post for a picquet 25 strong, to guard the approaches from the direction of Cooling Street, more especially against an advance under cover of darkness or fog.

The post is to be defensible against Infantry, and to give shelter from the weather.

The following instructions are for your guidance :—

1. You will make a rough enlarged sketch of the actual site selected, showing a few 10 feet contours, and explain how this site is to be identified by the persons directed to carry out the work.

2. It is to be made from the materials to be found in the immediate neighbourhood, together with those stores which are carried by a section of a Field Company, Royal Engineers.

3. A plan and sections of the work on a large scale must be furnished.

4. A statement showing nature of the work done, strength of the party, time, tools, and materials for each relief of 4 hours, only 20 men of the picquet being available for work at one time.

A short report, explaining your reasons for the various steps taken, design, etc.

6. This paper is not to be copied, is to be treated as confidential, and is to be returned with your project, together with a certificate that all the work has been done by yourself, without consultation, or the use of books other than those likely to be available on service.

7. Your report should be on foolscap paper, quarter margin, should be signed, paged, and dated, and returned to me by
Drawings and sketches, when practicable, should be on section paper.

NOTE.—There are troops in position at the points marked on the map in red.

*Station*_____

*Date*_____

Issued a.m. Returned m.

G. C. Press, Simla.—No. 160 P. W. D.—10-5-98.—1,517.

DEMOLITION OF DOCKS.

*Lieutenant*_____, *R.E.*

It is assumed that you form part of force which has landed for the attack of Chatham, and is temporarily in possession of the fortress. You are ordered to do the utmost possible damage to the dock, in which the "Illustrious" is now being built.

You will proceed to this dock and send in a report, stating in detail the amount of damage you propose to do. The time allowed is not to exceed 24 hours, and economy of explosive is to be studied.

The following are available:—30 sappers, dynamite and necessary firing gear, any tools and stores that could be obtained in the dockyard.

The following instructions are for your guidance:—

1. You will furnish large figured sketches of the dock. On these sketches the positions of the charges should be shown clearly, and all dimensions which affect the demolitions.

2. For all charges the following particulars should be given:—position, intervals, L. L. R., formula used, calculations, and methods of firing.

3. A tabular statement showing the nature of work, strength of party, time, tools, and materials required.

4. This paper is not to be copied, is to be treated as confidential and is to be returned with your project, together with a certificate that all the work has been done by yourself, without consultation, or the use of books other than those likely to be available on service.

5. Your report should be on foolscap paper, quarter margin, should be signed, paged, and dated, and returned to me by
Drawings and sketches when practicable should be on section paper.

*Station*_____

*Date*_____

Issued a.m. Returned m.

G. C. Press, Simla.—No. 190 P. W. D.—10-5-98,—1,517.

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BRIDGE.

*Lieutenant*_____, *R.E.*

You will prepare a project for a bridge across the ditch at the place shown in red on the accompanying rough sketch.

The bridge is to be in continuation of the private road leading to the staff quarters.

It is to carry all field wagons, &c., up to and including a steam sapper, and is wanted as soon as possible.

In arranging for the approaches, note that $\frac{1}{10}$ is to be the steepest gradient.

The ditch must not be blocked up.

Material.—Any materials in the Royal Engineer Park may be used.

Men and tools.—One field company, with its tools and stores, is available.

Your report should include :—

1. Plan and sections of the bridge and its approaches, with large scale sketches of details.

2. Calculations showing that all parts of the bridge are strong enough to bear the given loads.

3. A description of the method of erection and organization of work.

4. A table showing the distribution of men and tools.

5. A demand for materials showing where and at what time they are to be delivered. The Assistant Instructor for charge of Workshops will arrange for transport.

6. This paper is not to be copied, is to be treated as confidential, and is to be returned with your project, together with a certificate that all the work has been done by yourself, without consultation, or the use of books other than those likely to be available on service.

7. Your report should be on foolscap paper, quarter margin, should be signed, paged, and dated, and returned to me by
Drawings and sketches, when practicable, should be on section paper.

*Station*_____

*Date*_____

Issued a.m. Returned m.

G. C. Press, Simla.—No. 190 P. W. D.—10-5-98.—1,517.

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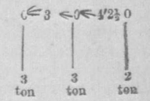
RAILWAY BRIDGE.

*Lieutenant*_____, *R.E.*

It is assumed that the bridging gap in the revelin occurs on the lines of communication, and that bridges over it have been destroyed by the enemy.

You will visit this gap and send in a design for the first three spans of a railway trestle bridge across the gap from south to north; the gap is to be assumed of considerable width from east to west.

The bridge to be designed to carry the following engine over 18-inch gauge, and to be wide enough to permit of pedestrian traffic on either side at the same time :—



Distance apart of driving axles 3 feet, and distance of trailing axle from rear driving axle 4 feet, 2½ inches.

No single span is to be less than 15 feet wide.

Timber, 12-in. by 12-in., up to 20 feet long, is available.

Planks, 3-in. by 12-in., up to 12 feet long, are available.

Dogs, spikes, tools, and small stores on demand.

The following instructions are for your guidance :—

1. You will furnish the following drawings :—

   (*a*) A rough section of the gap, showing the bridge in position over it.

   (*b*) A plan of the bridge.

   (*c*) Sketches of the trestles to an enlarged scale.

2. Calculations for road bearers and transom.

3. A tabular statement showing the nature of the work, strength of party, time, tools, and materials required.

4. This paper is not to be copied, is to be treated as confidential, and is to be returned with your project, together with a certificate that all the work has been done by yourself, without consultation, or the use of books other than those likely to be available on service.

5. Your report should be on foolscap paper, quarter margin, should be signed, paged, and dated, and returned to me by
Drawings and sketches, when practicable, should be on section paper.

*Station*_____

*Date*_____

Issued a.m. Returned m.

G. C. Press, Simla.—No. 190 P. W. D.—9-5-98.—1,517.

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SCHEME FOR WATER-SUPPLY.

*Lieutenant*_____, *R.E.*

A small force, composed of an Infantry battalion, a battery of Artillery, and a regiment of Cavalry (*) is to be encamped on the Chatham Lines for at least a month.

You are ordered to make suitable arrangements for watering this force, your source of supply being the water at present in the reservoir in the ditch at the Garrison Recreation Grounds, which is assumed to be of good quality. All the horses should be watered, if possible, in the space of half-an-hour. The following instructions are for your guidance :—

1. *Materials available.*—Timber and tools on demand from Royal Engineer Park, 54-gallon casks, two service lift-and-force pumps, two service tripod pumps.

2. Give a sketch plan of the water-supply arrangements.

3. How much water is there now in the reservoir, and how many days would it last ?

4. Send in a report on the scheme adopted, giving the distribution of the working party, the total number of men, time and materials required for work.

5. This paper is not to be copied, is to be treated as confidential, and is to be returned with your project, together with a certificate that all the work has been done by yourself, without consultation, or the use of books other than those likely to be available on service.

6. Your report should be on foolscap paper, quarter margin, should be signed, paged, and dated, and returned to me by
Drawings and sketches, when practicable, should be on section paper.

*Station*_____

*Date*_____

Issued a.m. Returned m.

* Here detail of strengths to be given.

G. C. Press, Simla.—No. 190 P. W. D.—9-5-98.—1,517.

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FIELD REDOUBT.

*Lieutenant*_____, *R.E.*

It is reported that an enemy is about to attack Chatham from the direction of Newington, and that he is well provided with field guns. General Idea.

Field defences between Darland and Twydall Forts are to be thrown up.

You will design a work between Woodlands and the Dover Road for a force of 350 men. Garrison.

Hambley Wood, south of the Dover Road, is being cleared, and any amount of small timber and brushwood in the rough is available, and may be assumed to have been brought to the proposed site. Materials.

The following instructions are for your guidance:—

1. Send in an outline plan on the 12-inch map, showing the position of the work, and explain how the tracing lines are to be fixed on the ground.

2. (*a*) A sketch plan showing all the tracing lines of the work.
(*b*) Figured sections for each different part of the work to a scale not less than 8 feet to 1 inch, showing tasks. These to be on section paper.

3. Splinter-proof cover is to be provided for the whole garrison.

4. A tabular statement showing nature of the work, strength of party, time, tools, and materials required for each portion of the work.

5. This paper is not to be copied, is to be treated as confidential, and is to be returned with your project, together with a certificate that all the work has been done by yourself, without consultation, or the use of books other than those likely to be available on service.

6. Your report should be on foolscap paper, quarter margin, should be signed, paged, and dated, and returned to me by
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*Station*_____

*Date*_____

Issued a.m. Returned m.

G. C. Press, Simla.—No. 190 P. W. D.—9-5-98.—1,517.

[*General Distribution.*]

Circular No. 7 Public Works.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

GENERAL.

To

THE SECRETARY TO THE GOVERNMENT OF MADRAS, PUBLIC WORKS DEPARTMENT.
THE JOINT SECRETARY TO THE GOVERNMENT OF MADRAS, PUBLIC WORKS DEPARTMENT, RAILWAY BRANCH.
THE SECRETARIES TO THE GOVERNMENT OF BOMBAY, PUBLIC WORKS DEPARTMENT, GENERAL AND RAILWAY BRANCHES.
THE SECRETARIES TO THE GOVERNMENTS OF BENGAL, THE NORTH-WESTERN PROVINCES AND OUDH, AND THE PUNJAB, PUBLIC WORKS DEPARTMENT.
THE SECRETARIES TO THE GOVERNMENT OF BURMA, PUBLIC WORKS DEPARTMENT, GENERAL AND RAILWAY BRANCHES.
THE CHIEF COMMISSIONERS OF THE CENTRAL PROVINCES, ASSAM, AND COORG.
THE RESIDENT AT HYDERABAD.
THE AGENTS TO THE GOVERNOR GENERAL FOR CENTRAL INDIA, RAJPUTANA, AND BALUCHISTAN.
THE ACCOUNTANT GENERAL, PUBLIC WORKS DEPARTMENT.
THE DIRECTORS OF RAILWAY CONSTRUCTION AND TRAFFIC.
THE CONSULTING ENGINEERS TO THE GOVERNMENT OF INDIA FOR RAILWAYS, CALCUTTA, LUCKNOW, AND ASSAM.

Examinations to be passed by Lieutenants of Royal Engineers for promotion to the rank of Captain.

Simla, the 6th May 1898.

SIR,

With reference to Government of India, Public Works Department, Circulars noted in the margin, I am directed to state that with effect from the 1st April 1899, all Lieutenants of Royal Engineers employed in the Public Works Department who have not previously qualified technically for promotion under existing regulations (Royal Engineer Corps, Memorandum No. 599*, dated 1st October 1896, paragraph 11) will be required to pass the "Active Service" project (paragraph 3 (*b*) of the above Memorandum) in addition to the departmental professional examination for promotion to Assistant Engineers, 2nd grade, before promotion to the rank of Captain.

No. 11 P. W., dated 21st December 1895.
No. 8 P. W., dated 23rd June 1896.
No. 11 P.W., dated 4th December 1896.

Published under G. O. C. C. No. 768, dated 11th November 1896.

I am, at the same time, to forward copy of a set of questions drawn up by the War Office as types of the project to be given for the active service project in the examination referred to in the preceding paragraph and to request that copies may be distributed to all the important centres of the department under your control, and that all the Royal Engineer officers under your control may be informed of the place at which they may be seen.

I am also to request that these types may be shown to any Royal Engineer Lieutenants joining the department in future.

I have the honour to be,

SIR,

Your most obedient servant,

G. Walker

Under Secretary to the Government of India.

Documents accompanying.

Memorandum and six sets of questions.

G. C. Press Simla,—No. 190 P. W. D.—10-5-98.—1,517.

With 35 C

To The Secy to the Govt of Madras
P.W. Department