

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව / இலங்கைப் பரீட்சைத் திணைக்களம் / Department of Examinations, Sri Lanka

Written Examinations for Technical Officers (Civil / Mechanical) in Public Service  
and Provincial Public Service - From 2005 to 2009 (2nd Exam) - 2010

(21) Mathematics (Higher Paper)

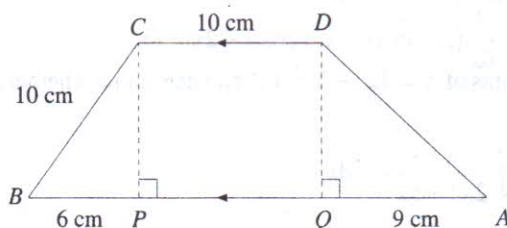
Three hours

Answer any six questions. (Take  $\pi = \frac{22}{7}$  and the acceleration due to gravity is  $g$ )

1. (i) When the length of a rectangle is increased by 3 cm, and its breadth is reduced by 2 cm, its area is reduced by  $15 \text{ cm}^2$ . When the length of the rectangle is reduced by 2 cm, and its breadth is increased by 4 cm, the area is increased by  $30 \text{ cm}^2$ . Find the length and the breadth of the rectangle.  
(ii) (a) In a right circular hollow cylinder of which the diameter at the bottom is 28 cm and height is 30 cm, a solid straight metal pyramid which has the same height as that of the cylinder, with a square bottom of which a side measures  $\sqrt{2}$  of the radius of the cylinder, is placed. Find the volume of water that can be poured into the cylinder upto its top. (Take that the cylinder is made of thin plates)  
(b) Thereafter the pyramid is taken out and cut into two pieces along a plane parallel to its bottom at the height of  $\frac{2}{5}$  th of that of the pyramid from its bottom. Then, if the section that is not in the shape of a pyramid is again put in the cylinder, find to the first decimal place, the height in cm to which the water level in the cylinder drops from its top.
2. (i) Find the equations of the two lines that pass through the point  $P = (5, -4)$  and form  $45^\circ$  angles with the line  $2x - y = 2$ . Find the perpendicular distance to the line  $2x - y = 2$  from point  $P$ .  
(ii) Find the radius and the co-ordinates of the centre of the circle represented by  $x^2 + y^2 - 6x + 2y - 15 = 0$ . Find the equations of the tangents drawn at the two points where this circle intersects the  $y$  - axis. Find the co-ordinates of the point of intersection of the two tangents.
3. (i) Find :  
$$\lim_{x \rightarrow 1} \frac{x^2 - 1}{\sqrt{3x+1} - \sqrt{5x-1}}$$
  
(ii) (a) Show that  $\frac{d}{dx} \frac{x^2 - 1}{\sqrt{x-1}} = \frac{3x-1}{2\sqrt{x-1}}$  where  $x \neq 1$   
(b) Show that  $\frac{d}{dx} (x^2 \sin x) = x(x \cos x + 2 \sin x)$   
(iii) Find the turning points of  $y = 4x^3 - 3x^2 + 2$  and determine whether each of them is maximum or minimum.
4. (i) (a) Integrate:  $\int \frac{17-x}{2x^2 - 5x - 3} dx$   
(b) Show that  $\int x^2 \sin x dx = -x^2 \cos x + 2x \sin x + 2 \cos x + D$  where  $D$  is an arbitrary constant.  
(ii) Find the area bounded by the part of the  $y = \frac{4}{x+1}$  curve from  $x = 1$  to  $x = 4$  and the  $x$  - axis.

[See page two

5.  $PQRS$  is a rhombus of which each side is 6 cm. Its  $\hat{P}Q = 60^\circ$  and the mid-point of  $PQ$  is  $T$ . Along the sides  $PQ$ ,  $TS$ ,  $PR$  and  $SP$ , the forces in newtons 2,  $6\sqrt{3}$ ,  $8\sqrt{3}$  and  $x$  act respectively. If the resultant of the system passes through the point  $R$ , find
- the value of  $x$
  - the magnitude of the resultant of the system of forces and the angle it forms with  $RS$ .
  - the distance from  $P$  to the point where the line of action of the resultant meets the line  $PQ$ .
6.  $A$  and  $B$  are the two ends of a thin, uniform rod weighing 4 kg. This rod is in equilibrium on the vertical plane such that the end  $A$  of the rod touching a vertical smooth wall and the rod  $AB$  lying on a fixed smooth wedge  $C$  which is 2 m away from the end  $A$ . The rod forms an angle of  $60^\circ$  with the wall. Draw a diagram and mark the forces on it to depict this system and find
- the reaction, the wedge makes on the rod.
  - the reaction, the wall makes on the rod.
  - the length of the rod.
7. (i) Ship  $A$  travels towards the west at a speed of  $20 \text{ km h}^{-1}$ , ship  $B$  travels towards the south-west at a speed of  $40\sqrt{2} \text{ km h}^{-1}$ . Find the velocity of ship  $A$  relative to ship  $B$ .
- (ii) A vehicle that starts its journey from rest, runs the first 50 m at a uniform acceleration along a straight line track, the next 1 minute at a uniform velocity, thereafter becomes to rest at a distance of 20 m in 2 seconds. Then, immediately it turns back and reverse along the same straight line track for 2 seconds at an acceleration of  $5 \text{ m s}^{-2}$ . Then it goes back a distance of 50 m and finally applies brakes and becomes to rest in 1 second.
- Draw a velocity time graph to depict this motion.
  - Find the entire time taken for the journey.
  - Find the displacement of the vehicle.
8. (i) A certain machine lifts a concrete block weighing 50 kg to a height of 7 m and projects it at an initial velocity of  $6 \text{ ms}^{-1}$ .
- Find the energy necessary for this function.
  - If the machine performs 40 such functions within one minute, find the efficiency of the machine.
- (ii) (a) Define the 'impulse' of a force acts on a certain object show that it is equal to the change of the momentum of the same object.
- (b) A vehicle that was running along a road at the speed of  $60 \text{ km h}^{-1}$  applies brakes and suddenly becomes to rest in  $\frac{5}{8}$  seconds. Find the medial force that acts within this period on a passenger weighing 60 kg in the vehicle.
9. (i) In a liquid of relative density 1.32 given in a vessel, a uniform wooden block of relative density 0.75 and volume of  $50 \text{ cm}^3$ , is immersed completely by a light string joining the wooden block to the bottom of the vessel. Find the tension of the string.



The diagram shows a shape of a trapezium cut from a uniform thin sheet. Its sides  $AB$  and  $DC$  are parallel. The perpendiculars drawn to  $AB$  from  $C$  and  $D$  respectively are  $CP$  and  $DQ$ . Its sides  $DC = CB = 10 \text{ cm}$ ,  $BP = 6 \text{ cm}$  and  $AQ = 9 \text{ cm}$ . Find the distance

- from  $AB$
  - from  $DQ$
- to the centre of gravity of the trapezium.

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව / இலங்கைப் பரீட்சைத் திணைக்களம் / Department of Examinations, Sri Lanka

Written Examination for Technical Officers (Civil / Mechanical) in Public Service  
and Provincial Public Service - From 2005 to 2009 (2<sup>nd</sup> Exam) - 2010

**Taking out Quantities (Higher paper)**  
**(22 A) Buildings**

Three hours

Answer **all** questions.

1. A plan of a proposed house has been attached. From this plan,
  - (i) measure the centre line dimensions for:
    - (a) The one brick thick walls separately.
    - (b) The half brick thick walls separately.

(10 marks)
  - (ii) Take-off quantities and square dimensions for the following:
    - (a) Excavation of foundation trench
    - (b) Brickwork in foundation
    - (c) Cement rendering of floors
    - (d) Doors  $D_1$  and  $D_2$  with necessary adjustments for only brickwork and plastering and lintel.

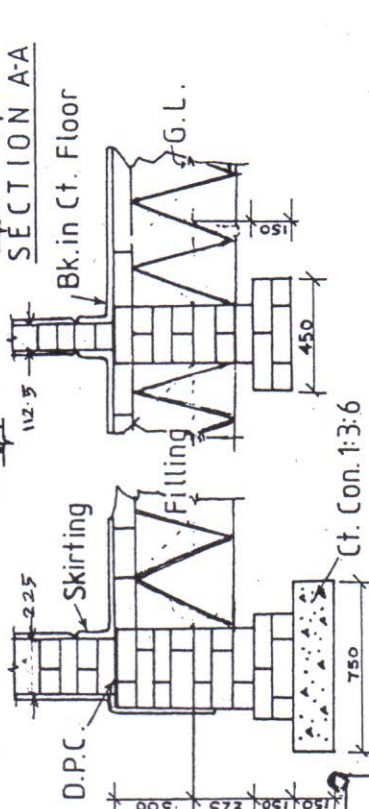
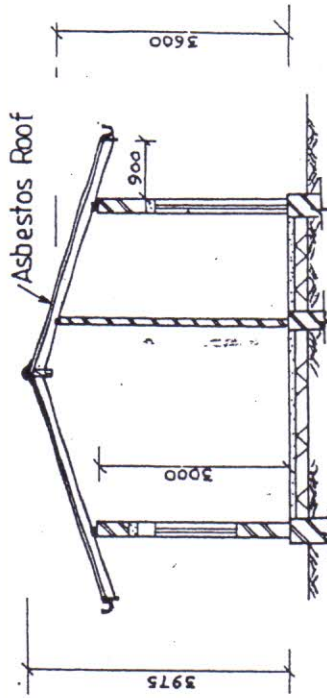
(35 marks)
2. Analyse the unit rates for the following basing your analysis on the current rates for labour and materials:
  - (i) Concrete in foundation using a mix of 1:3:6 (20).
  - (ii) Plasting of walls in cement mortar using a mix of 2:5
  - (iii) Roof covering using corrugated asbestos cement sheets fixed to  $100 \times 125$  purlins.

(30 marks)
3. Prepare a typical bill of quantities sheet and in it enter the four items taken off in question 1.

(25 marks)

\* \* \*



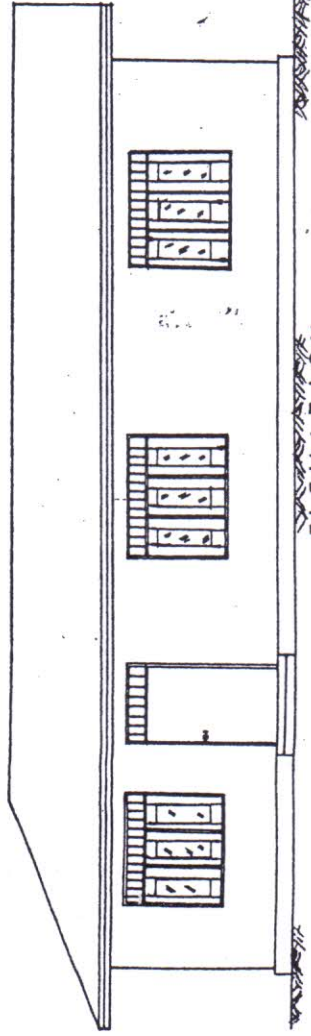


DETAIL OF FOUNDATIONS

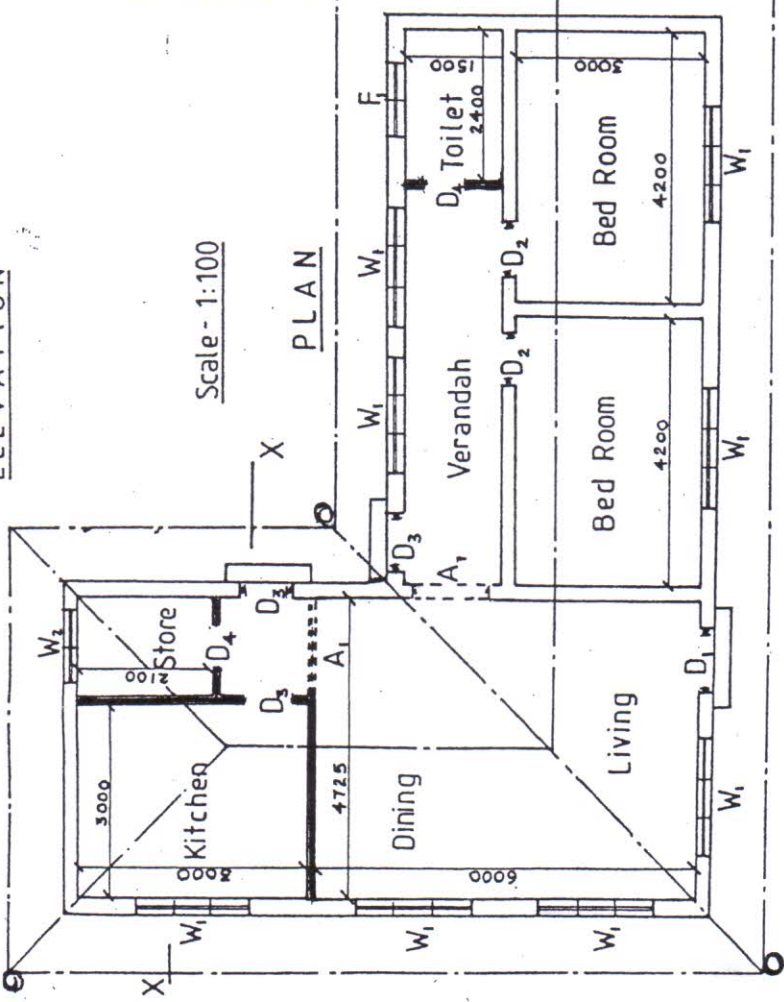
SCHEDULE OF DOORS & WINDOWS

TYPE	DESCRIPTION	SIZE
D <sub>1</sub>	PANELLED DOOR	1200 x 2400
D <sub>2</sub>	FLUSHED DOOR	900 x 2000
D <sub>3</sub>	DOOR	900 x 2400
D <sub>4</sub>	DOOR	825 x 2100
W <sub>1</sub>	GLAZED WINDOW	1800 x 1650
W <sub>2</sub>	DOOR	1200 x 1650
F <sub>1</sub>	FANLIGHT	1200 x 600
A <sub>1</sub>	FLAT ARCH	1200 x 2400

HALF BRICK WALLS.



ELEVATION



Scale - 1:100

PLAN

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව / இலங்கைப் பரீட்சைத் திணைக்களம் / Department of Examinations, Sri Lanka

Written Examination for Technical Officers (Civil / Mechanical) in Public Service  
and Provincial Public Service - From 2005 to 2009 (2<sup>nd</sup> Exam) - (2010)

**Drawing**  
**(24 A) Buildings**

Three hours

Answer **all** questions. Marks will be given for neatness, lettering, naming, dimensioning and placing, drawing. Assume sizes etc. where necessary.

The plan of a "Proposed two bed roomed house" has been attached.

Details regarding this building are given below:

Wall : All walls to be in bricks, 225 mm thick

Roof : Corrugated Asbestos sheets on Timber Framework

Ceiling : Flat Asbestos sheets on Timber Framework

Foundation : Concrete base 600 mm wide and 150 mm thick. Plinth walls in bricks, 338 mm thick.

Height of ground level from base of foundation - 600 mm

Height of floor level from ground level - 450 mm

Doors and windows - Suitable types and sizes to be assumed

1. Using the data given and draw the following to a scale of 1:100

(i) As given in the plan of the building

The plan should show clearly the wall thickness, the position of all doors and windows and the lay out of the roof

(25 marks)

(ii) The sectional elevation  $\times-\times$  drawn directly above the plan. The details of all roof and ceiling work must be clearly shown and all members named and dimensioned.

(35 marks)

2. Draw the cross-sectional details of the foundation to a scale of 1:100.

Show clearly the details of the floor inside the building and the pavement and drain outside the building.

(20 marks)

3. Prepare a schedule giving details of the types and sizes of the doors and windows that you intend to use for this house.

(15 marks)

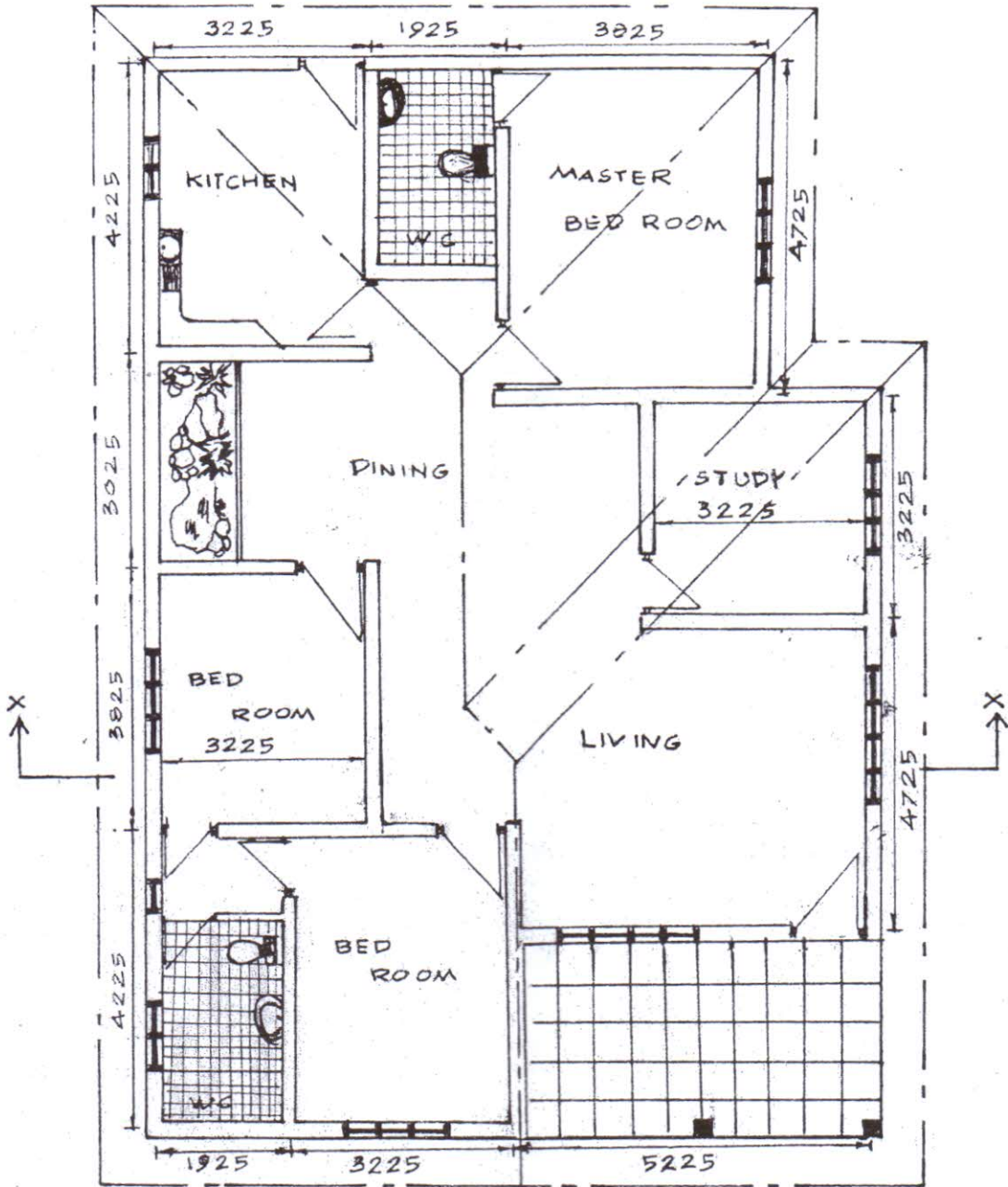
4. Make a cage of size 80 × 40 mm on the right hand bottom corner of the drawing paper and in it insert:

(i) The title - "Proposed two bed roomed house."

(ii) Your index number (Do not write your name)

(05 marks)

\* \* \*





Written Examinations for Technical Officers (Civil/ Mechanical) in Public Service and  
 Provincial Public Service - From 2005 to 2009 (2<sup>nd</sup> Exam) - 2010

(25) Building Construction (Higher Paper)

Three hours

Answer five questions including question No.one.

1. Answer the following questions drawing clear rough sketches wherever necessary.
  - (i) The quantity of sand practically necessary for mortar and concrete in engineering constructions exceeds the quantity theoretically necessary.  
 What is this excess quantity? Indicate it as a percentage and explain the reason for it. (03 marks)
  - (ii) One main reason for the lessening of the strength and durability of concrete is the non application of water cement ration in correct quantities. Explain by indicating the relevant ratios under manual compacting and compacting with a vibrator. (04 marks)
  - (iii) If the size of the particulars of sand used in mortar or concrete is finer than the quantities stated in the specifications, the strength and durability of the mortar or concrete is reduced. If not, the necessary quantity of building materials should be increased. Explain this. (03 marks)
  - (iv) Then Engineer says that, when selecting timber for construction purposes weighted timber is suitable. State the reason for it. (03 marks)
  - (v) If you notice a mortar mixture prepared at 8.00 a.m. using ordinary portland cement, is mixed with water again after the lunch interval, will you permit it? If you do not permit explain your reason for it, and state how the mortar already made is reused. (05 marks)
  - (vi) Briefly explain how cement blocks should be produced so as to maintain their strength and durability. (04 marks)

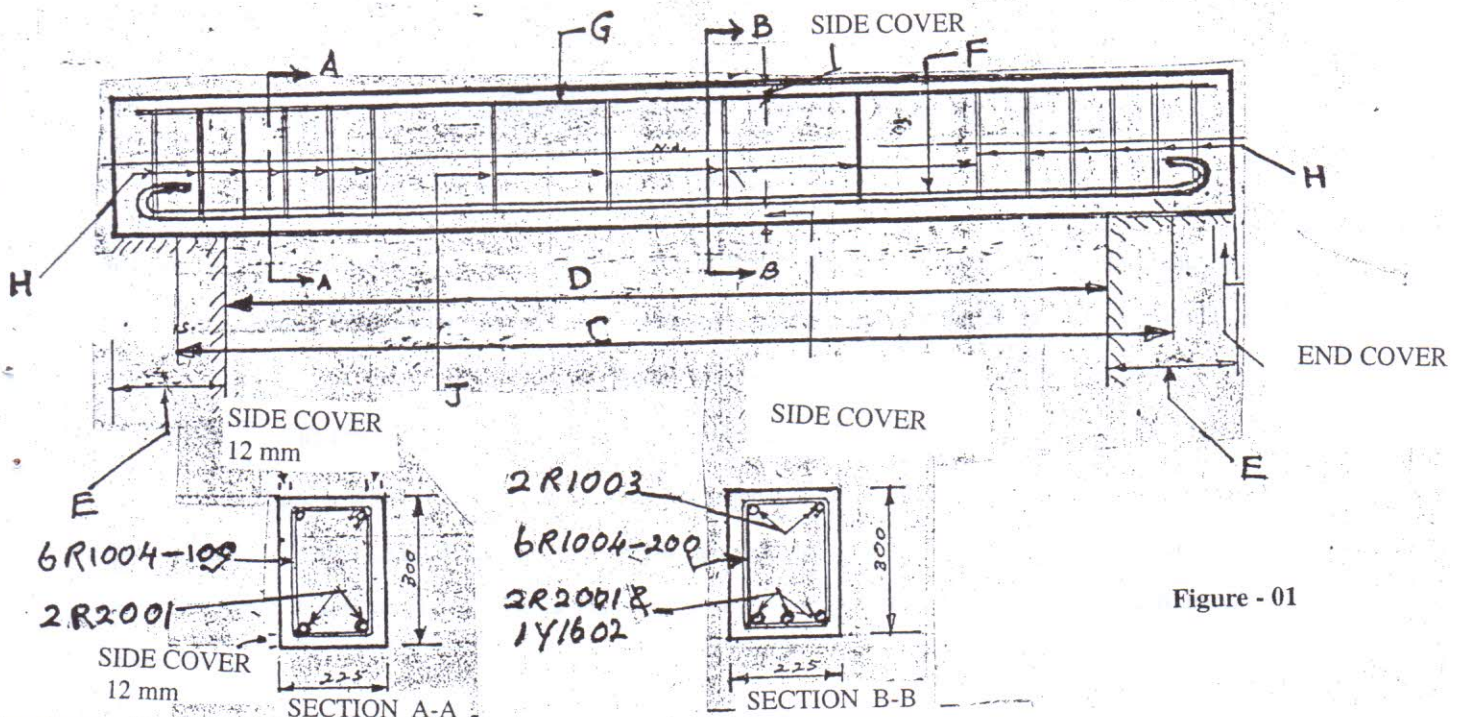


Figure - 01

- (vii) Above figure 1 shows the sectional front elevation and the sectional side elevation of a reinforced cement concrete beam. Answer the following questions with reference to them.

(a) Name C, D, E, F, G, H and J. (Writing the letter and the name against it is sufficient)

- (b) Mention the functions of *G*, *F*, *H* and *J*.
- (c) Write what is indicated by each reinforcement code shown in the sectional views *A-A* and *B-B*. Write the order and give the description against it.
- (d) What is the value of "*E*"?
- (e) Indicate function or functions of concrete covers.

(18 marks)

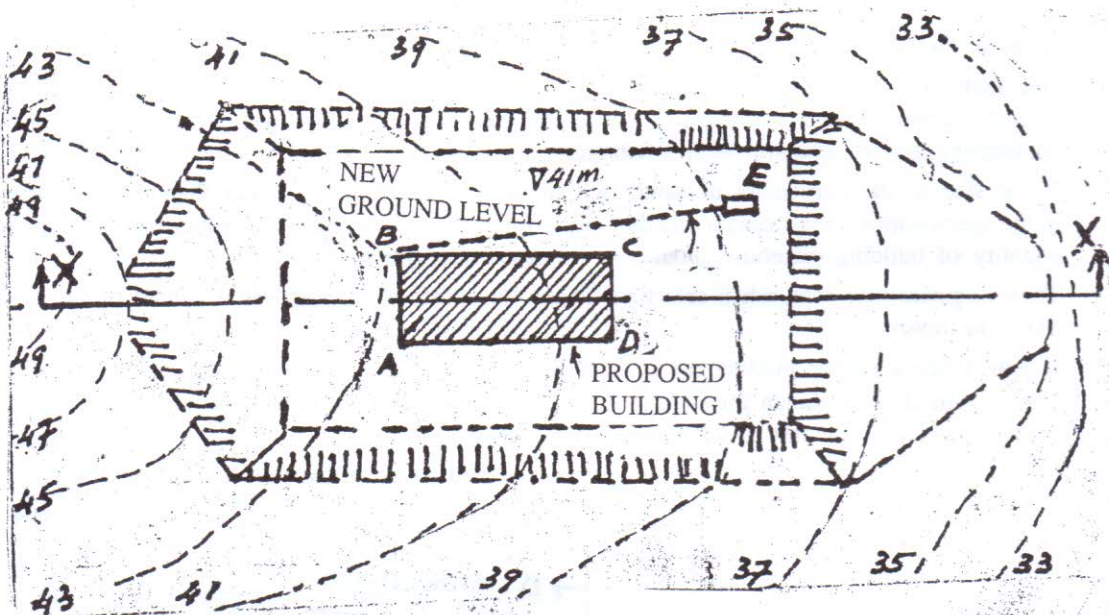


Figure - 02

2. Above figure 2 shows a part of the site plan of a building. The values of its contour lines are given in metres. The reduced level of the new ground has been levelled to the 41 metres, after cutting and fillings. Answer the following questions with reference to this figure.

- (i) Draw the sectional elvation (*X - X*) to a suitable scale indicating the cuttings and fillings. (05 marks)
- (ii) If the length of *BE* is 30 metres and the depth of the drain is 01 metre, draw a longitudinal section of the drain that has to be allowed for the drainage pipes to be laid with a slope of  $\frac{1}{40}$  from *B* to *E* and show its bottom line, depth at *E*, depth at *B*, ground line and the reduced levels of *B* and *E*. (05 marks)
- (iii) Taking this ground as one with loose soil, draw a cross section of the drain indicating timbering of trench, built to prevent the draining of soil near *B*, when digging the drain, indicating all its details. (05 marks)



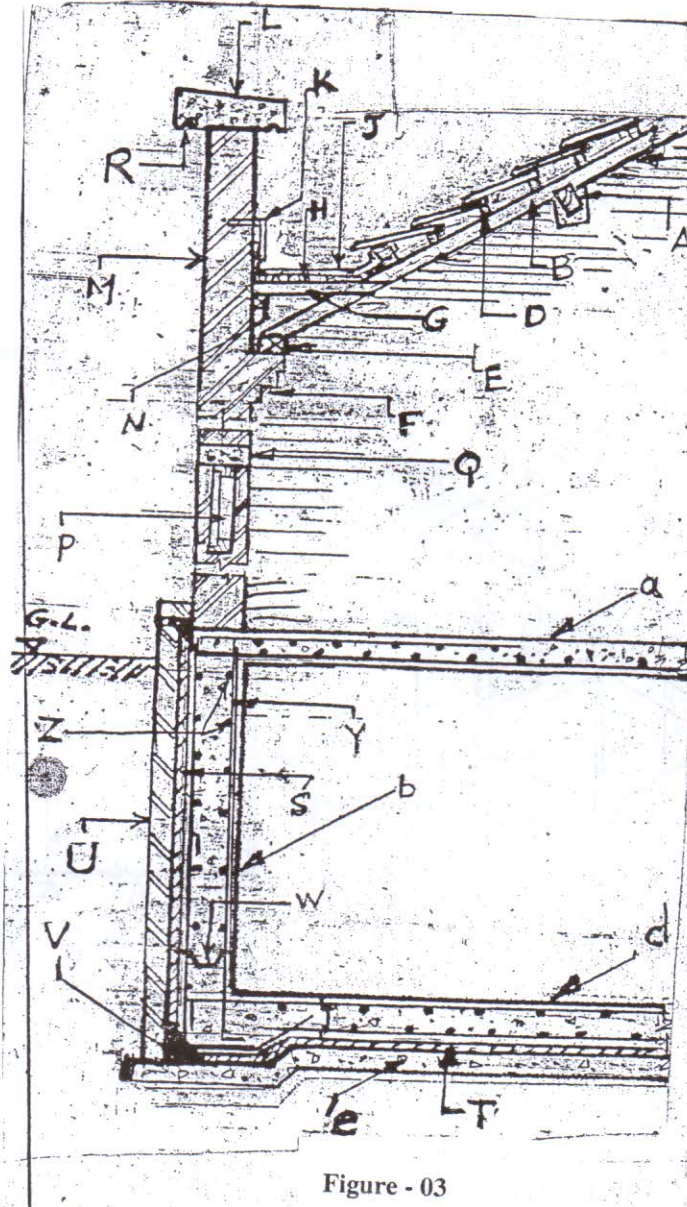


Figure - 03

3. Above figure 03 shows a part of a sectional elevation of a building with a basement. Answer the following questions with reference to it.

- (i) Indicate A to Z and name the parts a, d, e. Writing the letters and indicating the name against them is sufficient. a, d, and e are members of the basement. (09 marks)
- (ii) Show the function performed by K, L, R, T and V. (06 marks)

4. (i) As per above diagram 03, Describe with the help of diagrams how 'P' member is fixed to the wall weiree. (06 marks)

- (ii) Taking the ground on which the basement is to be constructed, as a ground with hard soil describe with the help of diagrams how timbering is done using raking shored to prevent the slipping of soil when soil is dug for the basement. (09 marks)

5. (i) Draw a front elevation and a sectional elevation showing how the form work is fitted using the following materials to the reinforced cement concrete wall in the front part, Shown in figure 03. Assume the height of the wall is 5 metres.

**Material used:**

- \* One Surface coated plywood.
- \* G.I. pipes with diameter 50 millimeters.
- \* Metal butterfly clips.
- \* Full threaded metal rods.
- \* Plastic cones
- \* Adjustable steel props.

(08 marks)

- (ii) State in order, the construction steps of the concrete wall mentioned in (i) above.

(07 marks)

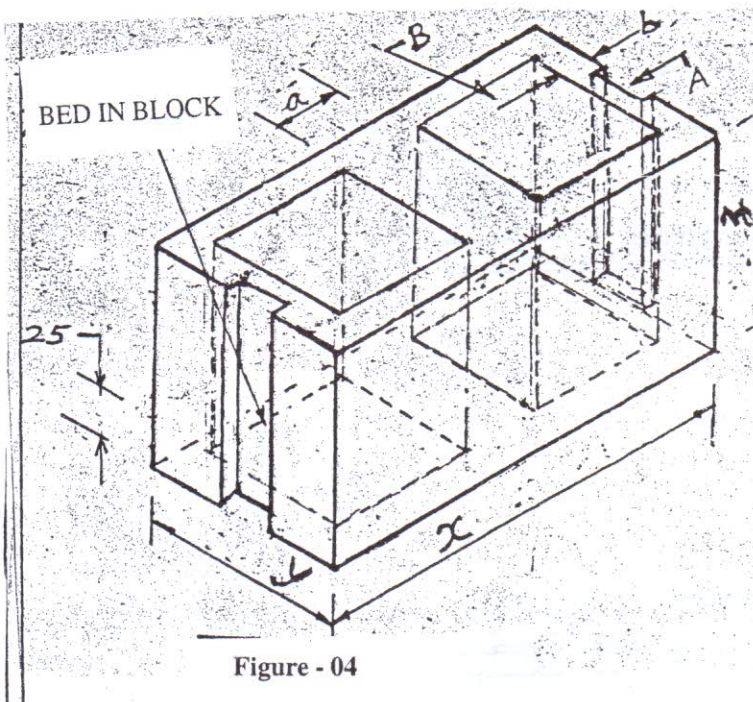


Figure - 04

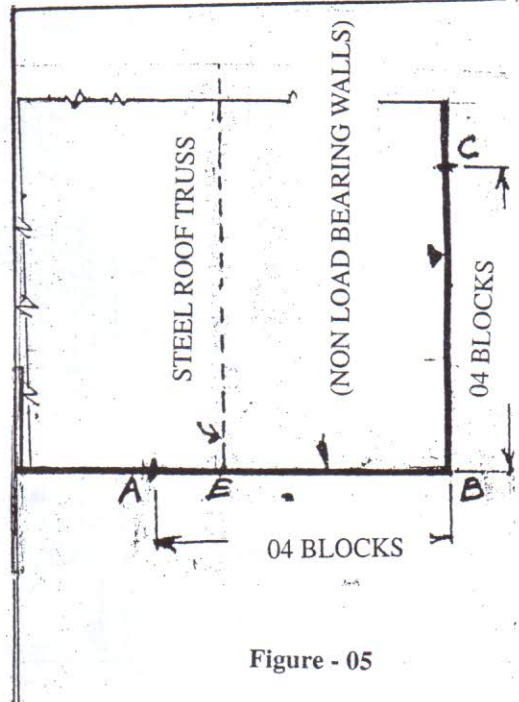


Figure - 05

6. Answer the following questions with reference to above figures 04 and 05.

- (i) Figure 04 shows a cement hollow block. Name A and B in it. (Writing the letter and name are sufficient). Show in millimeters the dimensions of x, y, z, a and b. (Writing the letter and indicating the dimension is sufficient)

(03 marks)

- (ii) Briefly describe the material used when producing these hollow blocks in your worksite and indicate the mixing proportions of these materials and the technological measure you adopt to ensure the necessary strength of those blocks and their durability.

(04 marks)

- (iii) Figure 5 shows a part of line sketch of a building proposed to be built using the hollow blocks mentioned in Figure 4. The steel truss to be used at E, to make the roof of this building is indicated in broken lines. Mention the technological measures you resort to in order to strengthen the wall so as to clear the weight of the truss, and draw clearly to a suitable scale, the plans of two conservation layers of blocks to lay at the right-angled corner ABC indicating also the above technological measures, stating all the details.

(05 marks)

- (iv) Draw the front elevation of AB and indicate all its details. Shade the part that represents the weight of the truss. Draw it so as to indicate prominently the thickness of the joints. (There should be at least five layers of blocks.)

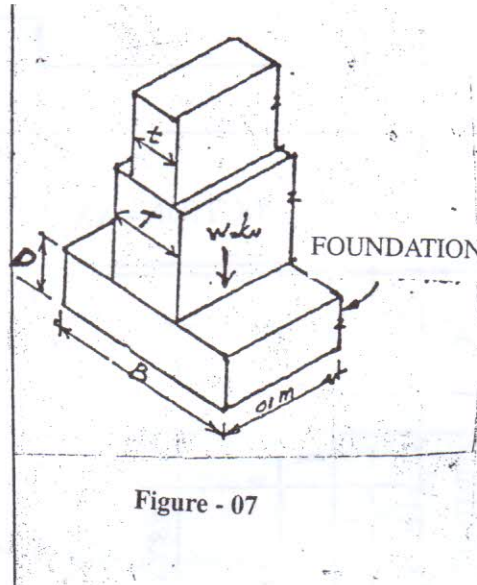
(03 marks)





8. (i) What are the loads of bearing of the foundation of a building?

(03 marks)



(ii) Above figure 7 shows a part of the strip foundation of a building. If the bearing capacity of the building site is ' $f$ ';  $\text{kn/m}^2$  the safety factor of soil is 8, and the load bearing on the foundation of a length of 1 meter of the building is " $W$ "  $\text{k/m}$ , what is the width of the foundation, that is,  $B$ ? Give the answer in meters.

(04 marks)

(iii) Using your answer for (ii) above.

if  $f = 4800 \text{ kn/m}^2$

$W = 500 \text{ kn/m}$

$T = 0.34 \text{ m}$

Find the value of  $D$ .

(04 marks)

(iv) If the angle of repose of soil is  $20^\circ$ , find the value of  $D$  according to the Rankin's formula.

(04 marks)

\* \* \*



සියලුම හිමිකම් ඇවිරිණි]  
 முழுப் பதிப்புரிமையடையது.]  
 All Rights Reserved]

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව / இலங்கைப் பரீட்சைத் தி அணக்களம் / Department of Examinations, Sri Lanka

Written Examinations for Technical Officers (Civil/ Mechanical) in Public Service and  
 Provincial Public Service - From 2005 to 2009 (2<sup>nd</sup> Exam) - 2010

(26) Water Supply and Drainage (Higher)

Three hours

Answer all questions.

1. Write short notes on the following using sketches where necessary.
  - (i) Design period of the components of a water supply scheme.
  - (ii) Total Dynamic Head (TDH) of a pump.
  - (iii) Water Quality Standards.
  - (iv) Collecting a water sample from a tap for Bacteriological Examination. (20 marks)
  
2. Explain the operation of the following treatment units and describe how they are maintained.
  - (i) Slow sand filters
  - (ii) Rapid Gravity Sand Filters (20 marks)
  
3.
  - (i) Explain the preliminary works that you will carry out prior to laying of a transmission main pipe line. (08 marks)
  - (ii) Describe how you would carryout a pressure test of a 300 mm D.I. pumping main. (During construction stage). (12 marks)
  
4. Water is pumped from a ground reservoir to a water tower in the distribution system of a water supply scheme through a D.I. Pumping Main by a centrifugal pump. Estimate the following using the data given below.
  - (i) Friction Head Loss in the pipe line (06 marks)
  - (ii) Water Horse Power. (10 marks)
  - (iii) Brake Horse Power of Pump. (04 marks)
  - \* Level of free water surface of ground reservoir = 50 m above M.S.L.
  - \* Level of Inlet of Water Tower = 110 m above M.S.L.  
(Inlet is above top water level)
  - \* Diameter of pipeline = 150 mm
  - \* Total length of pipe line = 1 km
  - \* Discharge through the pump = 100 m<sup>3</sup>/h
  - \* Efficiency of Pump = 60%

Water Horse Power (WHP) =  $\frac{1000 QH \times 9.81}{746}$  Where  $Q$  is in m<sup>3</sup>/s ,  $H$  is in meters

Head Loss due to friction  $H_f = \frac{flv^2}{2gd}$  when

$f = 0.01$ ,  $l$  - Meters,  $v$  = velocity in Meters/sec.,  $g = 9.81$ ,  $d$  = Diameter in Meters,  $Q = AV$
  
5. Write short notes on the following:
  - (i) Oxidation Pond used in Sewage Treatment
  - (ii) Biochemical oxygen Demand (B.O.D.)
  - (iii) Bacteria used in sewage treatment
  - (iv) Disposal of septic Tank effluent under impermeable soil conditions. (20 marks)

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව / இலங்கைப் பரீட்சைத் திணைக்களம் / Department of Examinations, Sri Lanka

Written Examination for Technical Officers (Civil / Mechanical) in Public Service  
and Provincial Public Service - From 2005 to 2009 (2<sup>nd</sup> Exam) - 2010

(27) Road Construction and Maintenance (Higher paper)

Three hours

Answer **five** questions only. All questions carry **equal** marks.

---

1. (i) Draw a cross section of an inspection chamber and name its main features.  
(ii) Draw a cross section of an intercepting trap and name its main features.  
(iii) Explain the idea of providing an intercepting trap.
2. Write short notes on the following:  
(i) Dry bound macadam  
(ii) Water bound macadam  
(iii) Flexible pavement
3. Describe **two** forms of sight distance that are particularly important in designing a road.
4. What are the type of retaining walls? What is the idea of providing retaining walls?
5. (i) What are the types of compaction plant (machines)? (it should be discussed under three headings).  
(ii) What are the factors influencing the compaction of soil?
6. Briefly explain common road maintenance procedures grouping under **three** headings.

\* \* \*



Written Examinations for Technical Officers (Civil / Mechanical) in Public Service  
 and Provincial Public Service - From 2005 to 2009 (2nd Exam) - 2010

**(28) Bridge and Heavy Structure Construction and Maintenance**

*Three hours*

Answer **three** questions only.

1. (i) It has been proposed to construct a bridge across a river and the location has already been finalised. Briefly explain how to do a bridge survey which covers longitudinal section and cross sections.  
 (ii) Explain the importance of selecting the correct formation level in planning the construction of a bridge.
2. (i) What are the various grades of concrete that is adopted in bridge construction work. Briefly explain the situations where these various grades of concrete apply in bridge construction.  
 (ii) Explain the special precautionary methods that are adopted in under water concreting works.
3. (i) Bridge structures are sometimes founded on cylinders or RCC piles. Briefly explain what are the factors in selecting correct type of foundation.  
 (ii) What are the problems that may encounter in cylinder sinking and driving of RCC piles. Briefly explain how to rectify those problems.
4. (i) Explain various types of failures that are very common in bridge substructures such as abutments, piers, wingwalls etc.  
 (ii) Explain briefly one of the rectification method that could be adopted in covering settlement cracks that appear on substructures of bridges.
5. (i) Name various types of steel bridges that are commonly used in bridge construction works in Sri Lanka.  
 (ii) Explain briefly the construction activities involved in constructing a temporary bridge using Bailey type bridge components.

\* \* \*

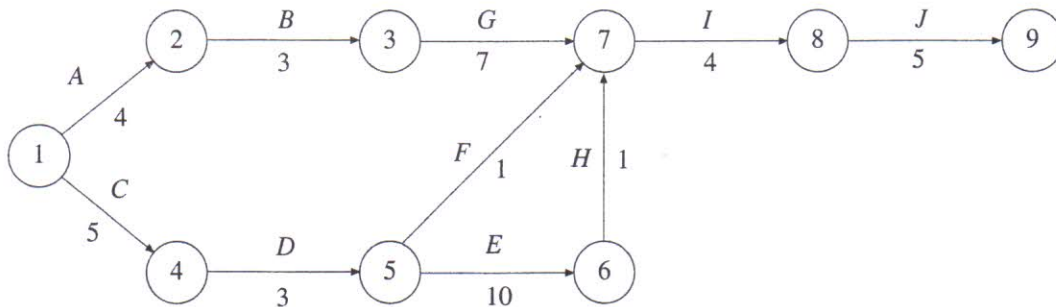
Written Examinations for Technical Officers (Civil/ Mechanical) in Public Service and  
Provincial Public Service - From 2005 to 2009 (2<sup>nd</sup> Exam) - 2010

(29) Work Organization

Three hours

Answer all questions.

1. (i) Name **three** main parties involved in a construction project. Explain how they contribute for the success of the project. (09 marks)
- (ii) Briefly explain the role of the following categories of the contractor's staff,
  - (a) Project Manager
  - (b) Site Agent
  - (c) Site Engineer(09 marks)
- (iii) Draw a typical organization structure for a medium scale construction project. (07 marks)
2. (i) Name any **five** documents associated with stores and labour management, maintained in a building construction project and briefly explain the purposes of them. (10 marks)
- (ii) Name the type of labour categories assigned to building project. (03 marks)
- (iii) Name important schedules maintained in a construction project and give typical examples for each of them. (12 marks)
3. (i) List the duties of a technical officer and briefly explain them. (15 marks)
- (ii) What are the duties of a store keeper? (10 marks)
4. The CPM network diagram for a construction site is as follows.



- (i) Determine the following for each activity
  - (a) Earliest Start Time (EST) (05 marks)
  - (b) Latest Finish Time (LFT) (05 marks)
  - (c) Total Float (TF) (05 marks)
- (ii) What is a critical activity? Briefly explain. (05 marks)
- (iii) Determine the critical path of the given project. (05 marks)

\* \* \*



ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව / இலங்கைப் பரீட்சைத் திணைக்களம் / Department of Examinations, Sri Lanka

Written Examinations for Technical Officers (Civil / Mechanical) in Public Service and  
Provincial Public Service - From 2005 to 2009 (2<sup>nd</sup> Exam) - 2010

(34) Office Administration & Establishments Code

Three hours

Answer **five** questions only. All question carry **equal** marks.

1. (i) State **ten** distinct categories of the public belonging to different states who frequently visit government offices to obtain services.  
(ii) Mention separately the special facilities to be provided to suit the common needs of **five** categories stated above.
2. (i) Name different parties who play the **fivefold** different roles in a formal disciplinary inquiry against a public officer.  
(ii) Describe the functions of **two** such parties.
3. (i) State **ten** multifunctional electric and/or electronic appliances used in government offices today in Sri Lanka.  
(ii) Describe the diverse functions performed by **five** of them.
4. (i) Briefly describe the **fourfold** methods of refusing the annual salary increment of a public officer here.  
(ii) What are the basic requirements that should be fulfilled by a public officer to receive the annual salary increment?
5. (i) What are the occasions on which a public officer can retire prematurely from public service at his / her own free will before reaching the optional age of retirement?  
(ii) Briefly describe the provisions governing each such occasion.
6. (i) State **ten** office systems and practices adopted by government offices in this country to help time management.  
(ii) Select **five** and give **one** strength and **one** weakness under each of them respectively.
7. (i) Briefly describe the specific occasions on which a salary conversion takes place.  
(ii) What are the general provisions governing the payment of overtime to a public officer?
8. Write short notes on **four** of the following:
  - (i) Maternity Leave
  - (ii) Distress Loan
  - (iii) Vacation of Post
  - (iv) Period of Probation
  - (v) Setting in Allowance
  - (vi) Political Rights of Public Officers

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව / இலங்கைப் பரீட்சைத் திணைக்களம் / Department of Examinations, Sri Lanka

Written Examinations for Technical Officers (Civil / Mechanical) in Public Service and  
Provincial Public Service - From 2005 to 2009 (2<sup>nd</sup> Exam) - 2010

(35) Financial Regulations

Three hours

Answer **five** questions only.

1. Under F.R. 3(iii), the procedure that should be followed for preliminary approval and final approval has been mentioned. What are the matters that are included in that procedure? Describe.
2. State in relation to F.R. 104 (4), the facts that should be included in a full report which should be submitted within three months period after a loss or a damage occurs.
3. In terms of FR 128 (2), what are the matters a counting officer should be responsible to the chief counting officer when he has been appointed as the revenue counting officer for public expenditure as well as public revenue? Describe.
4. As per F.R. 138, what are the functions an officer authorised for certifying a payment voucher should be responsible for? Describe.
5. (i) How is it mentioned in F.R. 189, the procedure that should be taken regarding a cheque dishonoured by a bank.  
(ii) What are the matters stated in F.R. 392 regarding a lost cheque. Describe.
6. The facts that should be included in a stores rule are mentioned in F.R. 763. State the facts that should be included in such a stores rule.
7. Write short notes on:
  - (i) Committee on Public Accounts.
  - (ii) Authority of imprests.
  - (iii) Role of a technical evaluation committee.
  - (iv) Consolidated Fund.

\* \* \*