Q. A retaining wall retains a sand strata with $Ø = 30^\circ$ up to its top. If a uniform surcharge of 12 t/m^2 is subsequently put on the sand strata, then the increase in the lateral earth pressure intensity on the retaining wall will be

- (a) 1 t/m²
- (b) 2 t/m²
- (c) 4 t/m²
- (d) 8 t/m²

Q. Reduction in volume of soil primarily due to squeezing out of water from teh voids is called

- (a) Primary consolidation
- (b) Plastic flow
- (c) Creep

(d) Secondary consolidationQ. A good quality undisturbed soil sample is one which is obtained using a sampling tube having an area tatio of

(d) 32%

Q. According to Khosla's theory; the critical hydraulic gradient for alluvial soil is equal to

(a) 1.0 (b) 1.5 (c) 2.0 (d) 2.5

Q. Hydrometer analysis is based on

- (a) Darcy's law
- (b) Poisewille's law
- (c) Stoke's law
- (d) Dupuit's theory
- Q. The bearing capacity factors $N_{c'} N_{q'}$ and $N\gamma$ depend on

(a) cohesion of soil

(b) angle of internal frication of soil

(a) 8%

(c) unit weight of soil (d) density of soil

Q. The weight of the hammer used in the standard penetration test is

- (a) 50 kg
- (b) 60 kg
- (c) 65 kg
- (d) 75 kg

Q. The pore water pressure in theh capillary zone is

- (a) zero
- (b) positive
- (c) negative
- (d) very low

Q. The piping failure of a hydraulic structure forces can be prevented by:

(a) increasing pressure due to body forces

(b) increasing the seepage
length of the flow
(c) providing filters at down
steam end
(d) All of these

Q. A soil which has never been subjected to an effective stress greater than the existing pressure and which is also completely consolidated, is called:

(a) under-consolidated
(b) over-consolidated
(c) normally consolidated
(d) none of these

Q. The vehicle used in case of enamel paints is usually

- (a) kerosene
- (b) varnish

(c) water

(d) none of above

Q. Which of the following constituent when present in excess quantity, changes the colour of the brick from red to yellow:

- (a) alumina
- (b) silica
- (c) alkalies
- (d) lime stone
- Q. Excess of silica in brick earth results in
- (a) very heavy brick
- (b) loss of cohesion
- (c) very light brick
- (d) noe of these

Q. The most common admisture which is used to accelerate the initial setting of concrete is

YOU

- (a) Gypsum
- (b) Calcium Chloride
- (c) calcium Carbonate
- (d) Calcium Aluminate

Q. Which of the following constituents when present in excess quantity in clay causes bricks to melt and distort during burning?

- (a) Alumina
- (b) Silica
- (c) Lima
- (d) Alkali
- Q. A queen closer is a

(a) brick laid with its length parallel to the face or direction of wall

(b) brick laid with its breadth parellel to the face or direction of wall

(c) brick having the same length and depth as the other bricks but half the breadth

(d) brick with half the width at one end and full width at the other

Q. The minumum depth of foundation in clayey soils is

- (a) 50 cm
- (b) 70 cm
- (c) 90 cm
- (d) 120 cm

Q. Parapet wall is protected from rain water by:

- (a) brick coping
- (b) brick sills
- (c) brick corbels
- (d) brick lintel

Q. In stucco plastering, for finish coat the mortar is made of:

- (a) 1: 4 cement and sand
- (b) 1:3 cement and sand
- (c) 1:2 ement and sand
- (d) 1 : 1 cement and sand

Q. Herring-bone bond is commonly used for: (d) brick paving Q. King closers are related to

- (a) doors and windows
- (b) king post turss
- (c) queen post truss
- (d) brick masonry
- Q. The double mass analysis is adopted to

(a) estimate the missing rain fall data

(b) obtain intensities of rainfall at various duration

- (c) check the consistency of data
- (d) obtain the amount of storage needed to maintain a demand pattern

Q. The Penman's evapotranspiration equation is based on

OUTUBE CHANNEL

- (a) thick walls
- (b) partition walls
- (c) footings in foundations

(a) water budget method

(b) energy balance method

(c) mass transfer method

(d) energy balance and mass transfer approach

Q. An instantaneous unit hydrograph is a hydrograph of (d) unit base period of hydrograph

(c) unit area of drainage basin

(a) unit duration and infinitely small rainfall

(b) infinitely small duration and of unit rainfall excess

(c) zero effective precipitation

(d) zero frequency

Q. S-hydrograph is used to obtain unit hydrograph of

(a) shorter duration from longer duration

(b) longer duration from shorter duration

(c) both (a) and (b)

(d) None of above

Q. The word 'unit' in the Hydrograph refers to

(a) unti depth of direct run off

(b) unit duration of storm