

Program: BE Civil Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: CEC601 and Course Name: GEOTECHNICAL ENGINEERING-II

Time: 1 hour

Max. Marks: 50

=====

=====

Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	For slopes of limited extent the surface of slippage, is usually along
Option A:	A parabolic arc
Option B:	An elliptical arc
Option C:	A straight line
Option D:	A circular arc
Q2.	The factor K, in the radius of the friction circle($Kr \sin\psi$) depends on _____
Option A:	Radius of the frictional circle
Option B:	Frictional resistance offered
Option C:	Cohesive resistance
Option D:	Central angle of the slip arc
Q3.	If the movement of the wall is away from the back fill then the pressure acting on the retaining wall is
Option A:	Active earth pressure
Option B:	Passive earth pressure
Option C:	Positive earth pressure
Option D:	Rest earth pressure
Q4.	For Soft Clay Coefficient of earth pressure at rest K_0 is
Option A:	0.8
Option B:	0.4
Option C:	0.5
Option D:	0.6
Q5.	In passive earth pressure the inclination of failure plane with horizontal is
Option A:	$45 + (\phi/2)$
Option B:	$45 - (\phi/2)$
Option C:	$45 + (\phi)$
Option D:	$45 - (\phi)$

Q6.	The active pressure caused by a cohesionless backfill on a smooth vertical retaining wall may be reduced by
Option A:	Compacting the backfill
Option B:	Providing a surcharge load on the backfill
Option C:	Saturating the backfill with water
Option D:	Reducing the effective stresses
Q7.	The criterion for maximum active pressure is present at _____ in coulomb's wedge theory
Option A:	Repose line
Option B:	Slip-plane
Option C:	Surcharge line
Option D:	Ground line
Q8.	The material retained or supported by the retaining structure is called
Option A:	Surcharge
Option B:	Support wall
Option C:	Back fill
Option D:	Retaining wall
Q9.	The coefficient of earth pressure when the soil is at equilibrium is
Option A:	σ_v / σ_h
Option B:	σ_h / σ_v
Option C:	σ_h / σ_v
Option D:	σ_1 / σ_3
Q10.	Which of the following equation has been recommended by Indian standard for finding reduction factor in water table?
Option A:	$R_w = 0.5 (1 + Zw_2/B)$
Option B:	$R_w = 0.5 (1 - Zw_2/B)$
Option C:	$R_w = c N_c + \bar{\sigma} \cdot N_q + 0.5\gamma BN_\gamma$
Option D:	$R_w = Zw_2/B$
Q11.	Which of the following pose a limitation to plate load test?
Option A:	Effect of size of foundation and Test on cohesive soil
Option B:	Load increment
Option C:	Method of loading
Option D:	Measurement devices
Q12.	The bearing capacity factors N_c , N_q and N_γ are the functions of
Option A:	Width and depth of footing
Option B:	Density of soil
Option C:	Cohesion of soil
Option D:	Angle of internal friction of soil
Q13.	The bearing capacity equation for strip footing as given IS standard, can be

	modified on the basis of
Option A:	Shape of the footing
Option B:	Type of soil
Option C:	Bearing capacity
Option D:	Size of the footing
Q14.	The minimum depth of foundations below natural ground level is (mm) as per IS
Option A:	500
Option B:	750
Option C:	1000
Option D:	1250
Q15.	The requirement for the design for foundation is
Option A:	No excessive settlement
Option B:	No water table
Option C:	No cohesion
Option D:	No consolidation
Q16.	Settlement of Pile group in clay can be computed on assumption that
Option A:	The load is assumed to be uniformly distributed at all level
Option B:	The Load is ignored
Option C:	The Load is fixed
Option D:	The load is equal to No. of piles
Q17.	Piles are commonly driven into the ground by means of a special device called _____
Option A:	Pile driver and Hammer
Option B:	Driller
Option C:	Driller and Hammer
Option D:	Hydraulically Device
Q18.	Modern pile driving method was first invented by _____
Option A:	Romans
Option B:	Nasmyth
Option C:	Terzaghi
Option D:	Vitruvius
Q19.	The pile load test should be performed on _____
Option A:	Working pile
Option B:	Combined pile
Option C:	Test pile & Working pile
Option D:	Square pile
Q20.	A ditch conduits can be installed in a _____
Option A:	Shallow bedding
Option B:	Shallow ditch

Option C:	Narrow ditch
Option D:	Broad ditch
Q21.	The settlement ratio for a negative projecting conduit is _____
Option A:	Always positive
Option B:	Always negative
Option C:	Negative in some cases
Option D:	Positive in some cases
Q22.	The struts should have minimum vertical spacing in case braced cuts is _____
Option A:	2.5 m
Option B:	2.4 m
Option C:	2.3 m
Option D:	2.2 m
Q23.	If Galvanised steel strips are to be used as reinforcement, it should be
Option A:	50 - 100 mm wide, 9 mm thick
Option B:	50 - 100 mm wide, 12 mm thick
Option C:	40 - 80 mm wide, 12 mm thick
Option D:	40 - 80 mm wide, 9 mm thick
Q24.	What does 600 in (Geotextile 600) indicates.
Option A:	density of geotextile
Option B:	maximum heating temperature of geotextile
Option C:	tensile strength
Option D:	ductility
Q25.	Which is the main application of Geosynthetic Filter
Option A:	Erosion protection
Option B:	Sun protection
Option C:	Wind protection
Option D:	Tree protection