

## SSC JE MAINS 2019

Civil Engineering

At Just



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Q:) The weight of the hammer used in the standard eN penetration test is:

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(a)50 kg
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(b)60 kg

(c)65 kg

(d)75 kg

[UPPSC State Eng. A.E. 2004 (I)]

Q:) In a plate load test on a sandy soil, the test plate ' of 60 cm x 60 cm undergoes a settlement of 5 mm at a pressure of 12 x 104 N/ $m^2$ . What will be the expected settlement of 3m x 3m footing under the same pressure? (a)9 mm

(a)9 mm (b)15 mm (c)20 mm (d)25 mm

Gujarat PSC AE (N.W.R.) 2020

- Q:) Which of the following exhibits maximume. deformation?(a)Local shear failure(b)General shear failure
- (c)Punching shear failure
- (d)Composite failure

BPSC AE 2012 Paper—V 1

Q:) Due to large leakage and flood damage problems, following type of coffer dam is not preferred (a)Braced type (b)Cantilever sheet pile type (c)Cellular type (d)Double wall type

UKPSC AE 2013 Paper-I,

Q:) For determining the ultimate bearing capacity of soil, the recommended size of a square bearing plate to be used in plate load test should be 30 to 75 cm square with a minimum thickness of

- (a)10 mm
- (b)16 mm
- (c)25 mm
- (d)32 mm

**OPSC AE Paper- 2019 GPSC AE January 2018** 

- Q:) Contact pressure for a rigid footing resting on clay at the edge and the centre are \_\_\_\_\_and\_\_\_\_ respectively.
- (a) Zero; maximum
- (b) Minimum; maximum
- (c) Maximum; minimum
- (d)Maximum, zero

**LMRC AM 2019** 

Q:) The lowest part of a structure which transmits the load to the soil is known as (a)Super structure (b)Plinth (c)Foundation (d)Basement

**RPSC AE (GWD) 2014** 

Q:) Negative skin friction in a soil is considered when the pile is constructed through a (a)Fill material (b)Dense Coarse sand (c)Over consolidated stiff clay (d)Dense flux sand

> RPSC AE (GWD) 2014 WBPSC AE 2001

Q:) Two footings, one circular and the other square, are found on the surface of a purely cohesionless soil. Diameter of the circular footing and width of square footing is the same. Ratio of ultimate bearing capacity of circular to square footing is

- (a)1.20
- (b)1.33
- (c)1.00
- (d)0.75

Gujarat PSC AE (N.W.R.) 2020 GPSC AE Class (1&2) Paper-2, 2017 Karnataka PSC AE 2017 Paper-II ASSAM PSC CCE (PRE) 2015 JPSC Combined AE Paper V 2013 UPPSC State Eng. A.E. 20008 Q:) For a proposed building, raft foundation, isolated footings and combined footings are being considered. These foundations are to be listed in the decreasing order of preference in terms of performance. Which one of the following is the correct order of listing? (a)Raft foundation - Combined footings - Isolated footings (b) Isolated footings - Raft foundation - Combined footings (c)Combined footings - Raft foundation - Isolated footings (d)Combined footings - Isolated footings -Raft foundation **MPPSC AE 2016** 

- Q:) Consider the following statements regarding negative skin friction in piles:
- 1. It is developed when the pile is driven through a recently deposited clay layer.
- 2. It is developed when the pile is driven through a layer of dense sand.
- 3. It is developed due to a sudden drawdown of the water table.

Which of these statements is/are correct?

- (a)1 alone
- (b)2 and 3
- (c)2 alone
- (d)1 and 3

JPSC Combined A.E. Paper V2013
MPPSC Civil Eng. A.E. 2016
ESE 1995

- Q:) Consider the following statements associated with local shear failure of soils:
- 1. Failure is sudden with well-defined ultimate load.
- 2. This failure occurs in highly compressible soils.
- 3. Failure is preceded by large settlement.
- Which of these statements are correct?
- (a)1 and 2
- (b)1, 2 and 3
- (c)2 and 3
- (d)1 and 3

Q:) The minimum centre to centre spacing of friction piles of diameter D as per Bureau of of Indian Standards is:

(a)2.5 DD

(b)3.5 D

(c)3D

(d)4.0 D

[UPPSC State Eng. A.E. 2008]

Q:) One square footing and other circular footing of the are constructed in pure clay. The size square footing is the same as the diameter of the circular footing. The ratio of the net ultimate bearing capacity of square and circular footing is

- (a)1.0
- (b)2.0
- (c)1.30
- (d)4.0

[UPPSC State Eng. A.E. 2007(II)]

- Q:) Franki pile is a: (a)cast in-situ concrete cased pile (b)cast in-situ concrete uncased pile (c)pre cast concrete pile (d)steel pile
  - [UPPSC State Eng. A.E. 2007(II)]

Q:) Angular distortion limits for building in which cracking is not permissible is given by:

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(a)1/1000
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(b)1/2000

(c)1/100

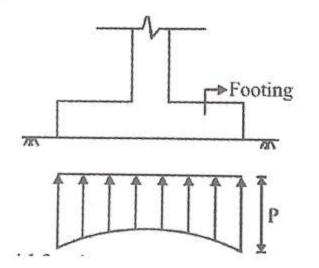
(d)1/500

[UPPSC State Eng. A.E. 2007(II)]

- Q:) The floating foundation is one in which(a)The foundation floats in water(b)The super structure rests on a number of the standing piles
- (c)The foundation consists of cellular raft (d)The net soil pressure beneath the foundation structure is zero

(BPSC AE Paper V 2006)

- Q:) The figure given below represents the contact pressure distribution on underneath as:
- (a) rigid footing on saturated soil
- (b) rigid footing on sand
- (c) flexible footing on saturated clay
- (d) flexible footing on sand



(UKPSCAE 2012 Paper-I)

- Q:) The two criteria for determining of allowable bearing capacity of foundation are:
  (a)Shear failure and settlement
  (b)Bond failure and shear failure
- (d)Tensile failure and compression failure

(c)Tensile failure and settlement

CGPSC AE Shift -2 2014 UK Combined AE Paper I 2010

- Q:) According to IS code, allowable settlement of raft foundation on sand is (a)25 mm to 40 mm (b)40 mm to 65 mm
- (c)75 mm to 100 mm
- (d)100 mm to120 mm

(UKPSC AE 2012 Paper-I) UPPSC State Eng A.E. 2007(II)

- Q:) A cantilever sheet pile derives its stability from
- (a) Self-weight of sheet pile
- (b) Lateral resistance of soil
- (c) Anchor road
- (d) None of the above

BPSC AE 2019 Paper (V) Section-I | UKPSC AE 2013 Paper-I |

- Q:) Statement A Terzaghi's bearing capacity theory assumes strip foundation in the analysis. Terzaghi's consider development of shear resistance in the soil mass above founding level-
- (a)Both the statements A and B are true
- (b)Statement A is true but B is false
- (c)Statement A is false but B is true
- (d)Both the statements A and B are false

MPSC (Mains) 2017 Paper-II

- Q:) Statement A: Plate load test is a short duration test and is not suitable in cohesive soils.
- Statement B: Plate load test does not record the total settlement of the test plate in clayey soils.
- (a)Both the statements A and B are true but B is not the correct explanation of A
- (b)Statement A is true but B is false
- (c)Statement A is false but B is true
- (d)Both the statements A and B are true and B is the correct explanation of A

MPSC (Mains) 2017 Paper-II

Q:) Raft foundation are generally preferred to when the area required for individual footing, is more than-(a)25% to total area (b)30% of total area (c)40% of total area

(d)50% of total area

OPSC AE -2016 (II)
OPSC AEE 2015 PAPER-I

- Q:) Select the correct statement-
- (a)Both negative skin friction and skin frictional resistance are caused by relative settlement of Soil
- (b)Both negative skin friction and skin frictional resistance are caused by relative settlement of pile
- (c)Negative skin friction is caused by relative settlement of soil and skin friction is caused by relative settlement of pile
- (d)Negative skin friction is caused by relative settlement of pile and skin frictional resistance is caused by relative settlement of soil

OPSC AE -2016 (II) OPSC AEE 2015 PAPER-I



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