## SSC JE PRE 2021 Cusim LIVE ONLINE CLASSES <br> 

ChELPLINE - 8595517959, 7827455078

## CIVIL ENGINEERING



# Foundation Batch 

## ALL STATE AE/JE EXAMINATION

© FULL THEORY BATCH

- VALIDITY - 1 YEAR
- DURATION - 400+ HOURS ENROLL NOW



## CRASH COURSE FOR <br> RAJASTHAN JE <br> 

## > START:- 16 APRIL 2022 <br> DURATION:- 100 HOURS VALIDITY:- 5 MONTHS



Q:1) As per Indian standard code 1077, the burnt building bricks having compressive strength less than N/mm² are known as common burnt clay

bricks

A 3.5
B 12.5
c 30
D 40

Q: 2) Maximum slenderness ratio as per Indian standard for an unreinforced load bearing wall (using Portland cement or Portland cement mortor) is

A 13
B 20
C 27
D 35

Q:3) The test conducted for the calculation of basic compressive stress of masonry is:

A Vibration test
B Prism test
c CBR test
D Slump cone test

## Q:5) The artificial seasoning method that causes

 timber to become brittle and easy to break isA Boiling
B Chemical seasoning
c Electrical seasoning
D Kiln seasoning

Q : 6) A statistically indeterminate structure Is the one which

A Cannot be analysed using equations of statics alone
B Cannot be analysed at all
c Is not stable for general loading
D Can be analysed with the equations of statics along

Q:7) The ratio of maximum deflection to maximum flexural stress in a simple supported beam of span I and depth d subjected to a concentrated load at midspan is

$$
\begin{array}{cc}
\hline \text { A } & \frac{l^{2}}{(6 E d)} \\
\hline \text { B } & \frac{l^{2}}{(8 E d)} \\
\hline \text { C } & \frac{l^{2}}{(16 E d)} \\
\text { D } & \frac{l^{2}}{(60 E d)}
\end{array}
$$

Q : 8) The influence line for deflection at the free end of cantilever is

A triangle with zero ordinate at fixed end and maximum ordinate at free end and maximum ordinate at free end

B A constant line

C
A cubic parabola with zero ordinate at fixed end and maximum ordinate at free end

D A parabola with zero ordinate at fixed end and maximum ordinate at free end

Q : 9) A temperature rise in a two hinged symmetric and parabolic arched rib causes

A A uniform bending moment in the rib
B No bending moment in the rib
C A maximum bending moment at the crown of the arch
D A minimum bending moment at the crown of the arch

Q : 10) A three-span continuous beam is fixed at the ends and supported by unyielding roller supports in between. What is the size of the stiffness matrix?

| A | $2 \times 2$ |
| :---: | :---: |
| B | $3 \times 3$ |
| C | $1 \times 1$ |
| D | $4 \times 4$ |

Q:11) For the structure shown, the elements of the flexibility matrix are

A $f_{11}=\frac{l}{E I} ; f_{21}=\frac{l^{2}}{2 E I} ; f_{12}=\frac{l^{2}}{2 E I} ; f_{22}=\frac{l^{2}}{3 E I}$


B $f_{11}=\frac{l^{3}}{3 E I} ; f_{21}=\frac{l^{2}}{2 E I} ; f_{12}=\frac{l^{2}}{2 E I} ; f_{22}=\frac{l}{E I}$
C $f_{11}=\frac{l}{E I} ; f_{21}=\frac{l^{2}}{2 E I} ; f_{12}=\frac{l^{2}}{E I} ; f_{22}=\frac{l^{3}}{3 E I}$
D $f_{11}=\frac{l}{E I} ; f_{21}=\frac{l^{2}}{2 E I} ; f_{12}=\frac{l^{2}}{2 E I} ; f_{22}=\frac{l^{3}}{4 E I}$

Q:12) The angles of dispersion of a concentrated load on the flange to the web plate of a steel beam is

A 70 degree with horizontal
B 60 degree with vertical
C 45 degrees with vertical
D 30 degrees with vertical

## Q:13) The eddy's theorem is valid for

A Vertical loads only
B Horizontal loads only
c Dynamic loads only
D All loads

Q:14) As per IS-875, where access is not provided except for maintenance, live load on roods, while designing a truss, in respect of its plan area is adopted as

A $100 \mathrm{~N} / \mathrm{sq} . \mathrm{m}$
B $\quad 400 \mathrm{~N} / \mathrm{sq} . \mathrm{m}$
c $750 \mathrm{~N} / \mathrm{sq} . \mathrm{m}$
D $\quad 1500 \mathrm{~N} / \mathrm{sq} . \mathrm{m}$
$\mathrm{Q}: 15)$ An electric pole 5 m high is fixed into the foundation. It carries a wire at the top and is free to move sideways. The effective length of the pole is

A 3.25 m
B 4 m

C 5 m
D 10 m

Q : 16) In Pagenaud's coefficient method for the analysis of an interior panel of a T-beam bridge

Notation for coefficient as $\alpha x 4$ and $\alpha y 4$ includes suffix 4 since panel is
continues on all the 4 edges
B Poisson's ratio of concrete has no contribution

C Applicability is restricted, to the case when wheel load is centrally placed
D Dispersion of load is considered through wearing coat only

Q: 17) As per IS-800, the minimum pitch of bolts in a row of bolts is recommended as the diameter of the bolt times

A 2
B 2.5
C 3
D 4

Q : 18) Loss of stress with time at constant strain in steel is called

A Relaxation
B Creep
c Shrinkage
D Ductility

Q : 19) In a footing, it is usual to assume that the maximum value of transerve bending will occur at a distance, equal to (measured from the face of the column)

A Half the effective depth
B Effective depth
c Twice the effective depth
D None of the given answers

Q : 20) The minimum and maximum \% of reinforcement in RCC short column are

A 0.8 and 6
B 6 and 0.8
c 0.8 and 4
D 4 and 6

Q : 21) The neutral axis of thee reinforced beam passes through

A Centre of gravity of the concrete section
B Meta-centre of the concrete section
C Centroid of the transformed section
D Centroid of the concrete section

Q : 22) In a slab, the transerve reinforcement is provided at $\qquad$ to the span of the slab.

A 45 degrees
B 60 degrees
c 75 degrees
D Right angle

Q : 23) What type of stresses are artificially induced by prestressed concrete in a structure before it is loaded?

A Tensile
B Torsional
c Shear
D Compressive

Q : 25) Total amount of shrinkage strain for a pretensioned member is

A $3 \times 10^{-4}$
B $3 \times 10^{-5}$
C $3 \times 10^{-6}$
D $3 \times 10^{-7}$

## Q : 26) Fulkerson's rule stands for

A Planning the events
B Scheduling the events
c Numbering the events
D Controlling the events

Q : 27) If the values of $t_{0}, t_{1}, t_{p}$, are 8,12 and 18 the values of $t_{e}$ is

A 12.1
B 12.3

C 12.6
D 13

Q : 28) If the values of $\mathrm{t}_{\mathrm{o}}, \mathrm{t}_{\mathrm{p}}$ of an activity are 4 and 15, what is the variance of the activity?

A 3.22
B $\quad 3.36$

C 3.87
D 3.92

A Free float
B Total float

C Independent float
D Interfering float

Q : 30) The difference between the latest allowable time and earliest expected time of an event is known as

A Float
B Normal deviate
c Free float

D Slack

Q : 31) With the increase of time, the direct costs of the project

A Increase
B Decrease

C Remain constant
D Decrease and then increase

Q : 33) For irrigation, water having SAR above 26

A Can be used for all soils and for all crops
B Can be used for all soils except fine textured soils
c Can be used for all soils if some precautions are taken
D Is not used for any irrigation gauge stations, then $P$ is

A Highest discharge at the basin outlet

B Annual average of the basin

C Desired degree of percentage error in the estimate of the basin mean rainfall.

D Highest rainfall recorded in the basin

Q : 35) Defective air circulation in plant's root zone is an effect of

A Mixed cropping
B Fall in soil moisture content
c Water logging
D High temperatures

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