

**GSECL  
JE**

**Previous Year Paper  
Civil 2018**

**GENERAL KNOWLEDGE - GENERAL KNOWLEDGE****Question No.1**

1.00

**Bookmark** 

When was the French East India Company established?

- 1500 - (Alternative 2 )
- 1600 - (Alternative 3 )
- 1725 - (Alternative 4 )
- 1664 - (Alternative 1 )**

**Question No.2**

1.00

**Bookmark** 

Which among the following is a sexually transmitted bacterial disease?

- Herpes - (Alternative 3 )
- Hepatitis - (Alternative 4 )
- Syphilis - (Alternative 2 )**
- AIDS - (Alternative 1 )

**Question No.3**

1.00

**Bookmark** 

Which of the following actors received the 24th Crystal award at the World Economic Forum?

- Cate Blanchett - (Alternative 2 )
- Aamir Khan - (Alternative 4 )
- Shah Rukh Khan - (Alternative 3 )**
- Emma Stone - (Alternative 1 )

**Question No.4**

1.00

**Bookmark** 

COPD is caused by inhaling \_\_\_\_\_.

- Crystalline silica particles - (Alternative 4 )**
- Fluorinated gases - (Alternative 3 )
- Carbon Dust - (Alternative 2 )
- Carbon dioxide - (Alternative 1 )

**Question No.5**

1.00

**Bookmark** 

Which country had the maximum Foreign direct investment (FDI) inflows in India in 2017?

- Japan - (Alternative 4 )
- Singapore - (Alternative 1 )
- Mauritius - (Alternative 2 )**
- USA - (Alternative 3 )

**Question No.6**

1.00

**Bookmark** 

In the Mughal dynasty, who was the ruler of the darkened period of their history?

- Mohammed Sahib - (Alternative 1 )
- Aurangzeb - (Alternative 3 )**
- Mohammad Shabeer - (Alternative 2 )
- Akbar - (Alternative 4 )

**Question No.7**

1.00

**Bookmark** 

Which was the first ship of the East India Company that entered into India through Gujarat?

- Hector - (Alternative 1 )**

- Grappler - (Alternative 2 )
- RMS Andes - (Alternative 3 )
- None of these - (Alternative 4 )

**Question No.8**

1.00

Bookmark

After the economic liberalisation of 1991, India achieved an average GDP annual growth of \_\_\_\_\_.

- 3-4% - (Alternative 4 )
- 6-7% - (Alternative 1 )**
- 4-5% - (Alternative 3 )
- 5-7% - (Alternative 2 )

**Question No.9**

1.00

Bookmark

Which among the following continents covers all the 4 hemispheres of the Earth?

- Asia - (Alternative 2 )
- Europe - (Alternative 3 )
- Africa - (Alternative 1 )**
- America - (Alternative 4 )

**Question No.10**

1.00

Bookmark

Which of Rachel Morrison's films was nominated for an Oscar?

- Rikers High - (Alternative 1 )
- Mudbound - (Alternative 3 )**
- Sound of my voice - (Alternative 4 )
- Honoree - (Alternative 2 )

**ENGLISH KNOWLEDGE - ENGLISH KNOWLEDGE**

**Question No.1**

1.00

Bookmark

Identify the part of the sentence which contains an error:-

Ram did not like (1)/leaving his old grandparents alone in the house (2)/ but he had no alternative (3)/ as he has to go out to work (4)/ No error (5)

- 5 - (Alternative 4 )
- 1 - (Alternative 2 )
- 4 - (Alternative 1 )**
- 3 - (Alternative 3 )

**Question No.2**

1.00

Bookmark

Choose the correct sequence from the given options by rearranging the sentences to form a meaningful passage:-

1. In 1856, a very famous burglary called the Cornhill burglary took place in England and the demand for burglar - proof safes increased.
2. The interesting thing is that it is still in demand for the safe-keeping of diamonds because it is the only drill-proof safe known to date.
3. The attempt to keep one's treasures in a specially protected place away from all harm is natural to all creatures.
4. A safe has now come to mean any large room or box which is used to keep valuables secure.
5. Human beings developed a 'safe' over a long period of time after much trial and error.
6. In 1860, a patent was taken out by safe manufacturer called Samuel Charewood for a new and improved safe.

- 354162 - (Alternative 2 )**
- 162354 - (Alternative 4 )
- 354126 - (Alternative 3 )
- 345162 - (Alternative 1 )

**Question No.3**

1.00

Bookmark

Choose the correct word in substitution for the sentence given below:-

Have a desire for something or someone who is not present

- delusion - (Alternative 3 )

- sedition - (Alternative 4 )
- yearn - (Alternative 1 )**
- façade - (Alternative 2 )

**Question No.4**

1.00

Bookmark

Choose the word opposite in meaning to:- DWELL

- abscond - (Alternative 4 )**
- bail out - (Alternative 3 )
- tarry - (Alternative 2 )
- hang around - (Alternative 1 )

**Question No.5**

1.00

Bookmark

Choose the appropriate alternative for the italicized words:-

Security ***has escalated*** at the Railway station in the wake of an intelligence report of a bomb attack by a terrorist group.

- had been escalated - (Alternative 1 )**
- have escalated - (Alternative 3 )
- have been escalated - (Alternative 4 )
- has escalated - (Alternative 2 )

**Question No.6**

1.00

Bookmark

Choose the word similar in meaning to:- SANGUINE

- Enthusiastic - (Alternative 2 )
- Dispassionate - (Alternative 4 )
- Genuine - (Alternative 1 )
- Optimistic - (Alternative 3 )**

**Question No.7**

1.00

Bookmark

Choose the correct option similar to the idiom given below:- "Barking up the wrong tree"

- barking at the other dog - (Alternative 3 )
- expert in shouting - (Alternative 1 )
- Accusing the wrong person - (Alternative 4 )**
- climbing the wrong tree - (Alternative 2 )

**Question No.8**

1.00

Bookmark

Choose the word with the correct spelling:-

- ecert - (Alternative 3 )
- exert - (Alternative 2 )**
- excert - (Alternative 1 )
- eksert - (Alternative 4 )

**Question No.9**

1.00

Bookmark

Fill in the blank with the suitable preposition:- What is the reason behind the rise \_\_\_\_\_ the wall street?

- on - (Alternative 1 )
- at - (Alternative 3 )
- of - (Alternative 2 )**
- behind - (Alternative 4 )

**Question No.10**

1.00

Bookmark

Fill in the blank with the suitable article:- \_\_\_\_\_ apples are grown in Kashmir.

- A - (Alternative 1 )
- The - (Alternative 3 )
- An - (Alternative 2 )

- No article - (Alternative 4 )

## CIVIL ENGINEERING - CIVIL ENGINEERING

### Question No.1

1.00

Bookmark

Shear keys are provided in cantilever retaining walls to take care of \_\_\_\_\_.

- Buckling - (Alternative 3 )
- Overturning - (Alternative 2 )
- Bearing failure - (Alternative 4 )
- Sliding - (Alternative 1 )

### Question No.2

1.00

Bookmark

The sludge treatment is mainly done to stabilize \_\_\_\_\_.

- Formation of gases - (Alternative 4 )
- Inorganic materials - (Alternative 1 )
- The growth of pathogenic bacteria - (Alternative 3 )
- Organic materials - (Alternative 2 )

### Question No.3

1.00

Bookmark

Methane gas can be collected from the engineered landfill through \_\_\_\_\_.

- Gas chambers - (Alternative 2 )
- Leechates - (Alternative 3 )
- Biomass storage - (Alternative 1 )
- Gas pipes - (Alternative 4 )

### Question No.4

1.00

Bookmark

CPM is \_\_\_\_\_.

- Time oriented technique. - (Alternative 3 )
- Activity oriented technique. - (Alternative 2 )
- Resource oriented technique. - (Alternative 4 )
- Event oriented technique. - (Alternative 1 )

### Question No.5

1.00

Bookmark

When the forces in a few members of a truss are to be determined, the preferred method of analysis is \_\_\_\_\_.

- Tension coefficient method - (Alternative 3 )
- Method of sections - (Alternative 2 )
- Graphical method - (Alternative 4 )
- Method of joints - (Alternative 1 )

### Question No.6

1.00

Bookmark

The flexibility of a structure is defined as \_\_\_\_\_.

- The displacement caused by unit force - (Alternative 1 )
- Moment required for unit displacement - (Alternative 3 )
- The force required for unit displacement - (Alternative 2 )
- The displacement caused by unit moment - (Alternative 4 )

### Question No.7

1.00

Bookmark

The condition of a structure which no longer fulfills the relevant design criteria is called \_\_\_\_\_.

- Collapse state - (Alternative 4 )
- Working state - (Alternative 3 )
- Limit state - (Alternative 1 )
- Ultimate state - (Alternative 2 )

**Question No.8**

1.00

**Bookmark** 

In a bituminous pavement, alligator cracking is mainly due to\_\_\_\_\_.

- Inadequate wearing course - (Alternative 1 )
- Inadequate thickness of sub base - (Alternative 2 )
- Use of excess bituminous material - (Alternative 3 )
- Fatigue arising from repeated stress applications - (Alternative 4 )**

**Question No.9**

1.00

**Bookmark** 

The partial differential equation for the complete solution  $z = ae^x + b \log y$  where a and b are arbitrary constants, is of the form

- $z = e^{-x} \frac{\partial z}{\partial x} + \log y \frac{\partial z}{\partial y}$  - (Alternative 2 )
- $z = \frac{\partial z}{\partial x} + y \log y \frac{\partial z}{\partial y}$  - (Alternative 4 )
- $z = e^x \frac{\partial z}{\partial x} + \frac{1}{y} \frac{\partial z}{\partial y}$  - (Alternative 3 )
- $z = \frac{\partial z}{\partial x} + \log y \frac{\partial z}{\partial y}$  - (Alternative 1 )

**Question No.10**

1.00

**Bookmark** 

For torsional reinforcement, side face reinforcement with torsion shall be provided along the two sides, if the depth of web of beam exceeds\_\_\_\_\_.

- 300 mm - (Alternative 2 )
- 750 mm - (Alternative 4 )
- 250 mm - (Alternative 1 )
- 450 mm - (Alternative 3 )**

**Question No.11**

1.00

**Bookmark** 

The extra widening required for a two-lane NH at a horizontal curve of radius 300 m, considering a wheel base of 8 m and a design speed of 100 km/hr is\_\_\_\_\_.

- 0.82 m - (Alternative 3 )**
- 0.32 m - (Alternative 2 )
- 0.42 m - (Alternative 4 )
- 0.72 m - (Alternative 1 )

**Question No.12**

1.00

**Bookmark** 

Radial stresses in a thin spherical pressure vessel is\_\_\_\_\_.

- Double the hoop stress - (Alternative 3 )
- Half the hoop stress - (Alternative 4 )
- Equal to the hoop stress - (Alternative 2 )
- Zero - (Alternative 1 )**

**Question No.13**

1.00

**Bookmark**

The analytic function  $w = f(z) = u + iv$  whose real part  $u = e^x \sin y$  is given by

- $-ie^z$  - (Alternative 1 )
- $ie^{-iz}$  - (Alternative 4 )
- $ie^{-z}$  - (Alternative 2 )
- $e^{iz}$  - (Alternative 3 )

**Question No.14**

1.00

Bookmark

In which of the following footings of equal width, the vertical stress extends to a larger depth below its base?

- Strip footing - (Alternative 1 )
- Rectangular footing - (Alternative 3 )
- Square footing - (Alternative 2 )
- Circular footing - (Alternative 4 )**

**Question No.15**

1.00

Bookmark

In the intersection method of plane table surveying, the number of stations needed to be set up are\_\_\_\_\_.

- Depending upon the sides of the parallelogram - (Alternative 4 )
- Two - (Alternative 2 )**
- Three - (Alternative 3 )
- One - (Alternative 1 )

**Question No.16**

1.00

Bookmark

In the Bernoulli equation, used in pipe flow, each term represents\_\_\_\_\_.

- Energy per unit volume - (Alternative 3 )
- Energy per unit weight - (Alternative 1 )**
- Energy per unit flow length - (Alternative 4 )
- Energy per unit mass - (Alternative 2 )

**Question No.17**

1.00

Bookmark

If a lacing is to be designed to carry an axial load of 400 kN, then the transverse shear to be resisted by the lacing will be\_\_\_\_\_.

- 30 kN - (Alternative 2 )
- 10 kN - (Alternative 4 )**
- 40 kN - (Alternative 1 )
- 20 kN - (Alternative 3 )

**Question No.18**

1.00

Bookmark

For a road with camber of 3% and design speed of 80 km/hr, the minimum radius of the curve beyond which no super-elevation is needed, is\_\_\_\_\_.

- 280 m - (Alternative 1 )
- 1680 m - (Alternative 4 )
- 948 m - (Alternative 3 )**
- 406 m - (Alternative 2 )

**Question No.19**

1.00

Bookmark

The stationary point  $(x, y)$  of the function  $f(x, y) = xy + \frac{y}{x} + \frac{3}{y}$  is given by

- $(3, -1)$  - (Alternative 4 )
- $(-1, 3)$  - (Alternative 2 )
- $(-1, -3)$  - (Alternative 1 )
- $(3, 1)$  - (Alternative 3 )

**Question No.20**

1.00

Bookmark

As per IRC recommendations, average level of illumination on important roads carrying fast traffic is \_\_\_\_\_.

- 10 lux - (Alternative 4 )
- 30 lux - (Alternative 2 )
- 20 lux - (Alternative 1 )
- 5 lux - (Alternative 3 )

**Question No.21**

1.00

Bookmark

For unstiffened flange of a beam in flexural compression, maximum allowable outstand is equal to \_\_\_\_\_.

- 40t - (Alternative 1 )
- 50t - (Alternative 4 )
- 16t - (Alternative 2 )
- 12t - (Alternative 3 )

**Question No.22**

1.00

Bookmark

Given  $u(t)$  is a unit step function,  $F\{u(t)e^{-t}\}$  is equal to

- $\frac{1}{1-is}$  - (Alternative 1 )
- $\frac{s}{s+i}$  - (Alternative 4 )
- $\frac{1}{s+i}$  - (Alternative 3 )
- $\frac{s}{1-is}$  - (Alternative 2 )

**Question No.23**

1.00

Bookmark

One of the efficient method of strengthening the foundation of the existing building is \_\_\_\_\_.

- Underpinning process - (Alternative 2 )
- Demolish and reconstruct - (Alternative 3 )



- Increasing the size of members - (Alternative 1 )
- Provide additional reinforcement - (Alternative 4 )

**Question No.24**

1.00

**Bookmark** 

If 4 hour unit hydrograph of a basin can be approximated as a triangle with a base period of 48 hours and a peak ordinate of 20000 m<sup>3</sup>/s, then the area of the basin is \_\_\_\_\_.

- 864 km<sup>2</sup> - (Alternative 1 )
- 3456 km<sup>2</sup> - (Alternative 3 )
- 1728 km<sup>2</sup> - (Alternative 2 )**
- 5184 km<sup>2</sup> - (Alternative 4 )

**Question No.25**

1.00

**Bookmark** 

If a structure is statically indeterminate to second degree, then maximum number of plastic hinges required to render the structure mechanism is \_\_\_\_\_.

- 2 - (Alternative 2 )
- Infinite - (Alternative 4 )
- 3 - (Alternative 3 )**
- 1 - (Alternative 1 )

**Question No.26**

1.00

**Bookmark** 

Engineering system of disposal of domestic waste means \_\_\_\_\_.

- Dumping of solid waste only on a daily basis - (Alternative 1 )
- Treatment by using chemicals on a daily basis - (Alternative 4 )
- Dumping, spreading and covering with soil on a daily basis - (Alternative 3 )**
- Incineration of solid waste on a daily basis - (Alternative 2 )

**Question No.27**

1.00

**Bookmark** 

For air-entrained concrete, compressive strength is approximately \_\_\_\_\_ % of non-air entrained concrete.

- 16 - (Alternative 1 )
- 70 - (Alternative 3 )
- 80 - (Alternative 4 )**
- 65 - (Alternative 2 )

**Question No.28**

1.00

**Bookmark** 

The Sewage Treatment which works on the degradation of organic matter by the agency of living organisms is called \_\_\_\_\_.

- Primary treatment - (Alternative 2 )
- Tertiary treatment - (Alternative 4 )
- Total treatment - (Alternative 1 )
- Secondary Treatment - (Alternative 3 )**

**Question No.29**

1.00

**Bookmark** 

Height of collimation method is preferred when the levelling ground is \_\_\_\_\_.

- Fairly level ground - (Alternative 3 )**
- To cross a barrier - (Alternative 4 )
- Having high altitudes - (Alternative 2 )
- Having deep slopes - (Alternative 1 )

**Question No.30**

1.00

**Bookmark** 

Which method of waterproofing is used in the wet areas of toilets?

- Cementitious waterproofing - (Alternative 4 )**
- Liquid waterproofing membrane - (Alternative 1 )
- Bituminous membrane - (Alternative 2 )

- Bituminous coating - (Alternative 3 )

**Question No.31**

1.00

Bookmark

Driving of piles causes densification of loose cohesion less soil up to radial distance of \_\_\_\_\_.

- 2.5 times pile diameter - (Alternative 2 )
- 3.5 times pile diameter - (Alternative 3 )**
- 1.5 times pile diameter - (Alternative 1 )
- 4.5 times pile diameter - (Alternative 4 )

**Question No.32**

1.00

Bookmark

The separation of water or water-cement mixture from freshly mixed concrete is called as \_\_\_\_\_.

- Bleeding - (Alternative 3 )**
- Segregation - (Alternative 2 )
- Flooding - (Alternative 4 )
- Creeping - (Alternative 1 )

**Question No.33**

1.00

Bookmark

As per IS 456:2000, the spacing of longitudinal bars measured along the periphery of the column shall not exceed \_\_\_\_\_.

- 250 mm - (Alternative 3 )
- 300 mm - (Alternative 2 )**
- 150 mm - (Alternative 4 )
- 350 mm - (Alternative 1 )

**Question No.34**

1.00

Bookmark

The Fourier coefficient  $a_1$  for the function  $f(x) = e^{-x}$  in the interval  $0 < x < 2\pi$  is

- $\frac{1 - e^{-2\pi}}{2\pi}$  - (Alternative 2 )
- $\frac{1 + e^{-2\pi}}{\pi}$  - (Alternative 3 )
- $\frac{-1 - e^{-2\pi}}{2\pi}$  - (Alternative 4 )
- $\frac{1 - e^{2\pi}}{\pi}$  - (Alternative 1 )

**Question No.35**

1.00

Bookmark

The voids ratio at the natural, the loosest and the densest state of a sand deposit are 0.5, 0.3 and 0.7 respectively. The relative density of the sand deposit is \_\_\_\_\_.

- 50% - (Alternative 2 )**
- 75% - (Alternative 3 )
- 25% - (Alternative 1 )
- 100% - (Alternative 4 )

**Question No.36**

1.00

Bookmark

Water is flowing in an upward direction through the structure of sand 5 m thick under a total head difference of 3 m. The sand has a specific gravity of 2.55 and voids ratio of 0.55. The factor of safety against quick condition would be\_\_\_\_\_.

- 3 - (Alternative 3 )
- 1.67 - (Alternative 1 )
- 1.5 - (Alternative 4 )
- 1 - (Alternative 2 )

**Question No.37**

1.00

Bookmark

A single acting reciprocating pump running at 50 rpm has the diameter of the piston as 200 mm and stroke length 400 mm. The theoretical discharge of the pump is\_\_\_\_\_.

- 10.5 lit/sec - (Alternative 1 )
- 5.25 lit/sec - (Alternative 2 )
- 21 lit/sec - (Alternative 3 )
- 62 lit/sec - (Alternative 4 )

**Question No.38**

1.00

Bookmark

The eigenvalues of the matrix  $A = \begin{bmatrix} \cos\theta & \sin\theta \\ -\sin\theta & \cos\theta \end{bmatrix}$  are given by

- $1 + e^{\pm i\theta}$  - (Alternative 2 )
- $\frac{1 - e^{\pm i\theta}}{1 + e^{\pm i\theta}}$  - (Alternative 4 )
- $1 - e^{\pm i\theta}$  - (Alternative 1 )
- $e^{\pm i\theta}$  - (Alternative 3 )

**Question No.39**

1.00

Bookmark

Two plates of 12 mm and 14 mm are to be joined by a fillet weld, the maximum size of fillet weld is\_\_\_\_\_.

- 15.5 mm - (Alternative 4 )
- 10.5 mm - (Alternative 2 )
- 12.5 mm - (Alternative 3 )
- 13.5 mm - (Alternative 1 )

**Question No.40**

1.00

Bookmark

The failure due to over-reinforced beam is called\_\_\_\_\_.

- Collapse failure - (Alternative 3 )
- Shear failure - (Alternative 4 )
- Tension failure - (Alternative 1 )
- Compression failure - (Alternative 2 )

**Question No.41**

1.00

Bookmark

Transfer stations are required for\_\_\_\_\_.

- Separation of domestic waste - (Alternative 2 )
- Disposal of domestic waste - (Alternative 4 )
- Treatment of domestic waste - (Alternative 3 )
- Collection of domestic waste - (Alternative 1 )

**Question No.42**

1.00

Bookmark 

As per IS:1904-1986, the minimum depth of shallow foundation is \_\_\_\_\_.

- 0.75 m - (Alternative 2 )
- 1.50 m - (Alternative 4 )
- 1.00 m - (Alternative 3 )
- 0.50 m - (Alternative 1 )**

**Question No.43**

1.00

Bookmark 

For open wells, ratio of safe depression head to critical depression head is equal to \_\_\_\_\_.

- 3/4 - (Alternative 2 )
- 1/2 - (Alternative 1 )
- 1/3 - (Alternative 3 )**
- 2/3 - (Alternative 4 )

**Question No.44**

1.00

Bookmark 

In stadia method if  $k$  is the multiplying factor,  $s$  is the staff intercept,  $c$  is the additive constant of the instrument, then the distance equation is given by the expression \_\_\_\_\_.

- $D = k + cs$  - (Alternative 1 )
- $D = k/s + c$  - (Alternative 3 )
- $D = k + c/s$  - (Alternative 4 )
- $D = ks + c$  - (Alternative 2 )**

**Question No.45**

1.00

Bookmark 

The main requirement of the waterproofing petroleum asphalt is \_\_\_\_\_.

- High Plasticity - (Alternative 3 )
- High temperature sensitivity - (Alternative 4 )
- Low viscosity - (Alternative 2 )
- High viscosity - (Alternative 1 )**

**Question No.46**

1.00

Bookmark 

A Gantt chart indicates:

- Progress cost of the project - (Alternative 4 )
- Efficiency of project work - (Alternative 3 )
- Balance work to be done - (Alternative 2 )
- dependency relationships between activities and current schedule status. - (Alternative 1 )**

**Question No.47**

1.00

Bookmark 

The radius of curvature at the point  $(0, c)$  of the curve  $y = c \cosh\left(\frac{x}{c}\right)$  is

- $\frac{c\sqrt{c}}{2}$  - (Alternative 1 )
- $\frac{\sqrt{c}}{2}$  - (Alternative 2 )
- $c$**  - (Alternative 4 )
- $\frac{1}{2c}$  - (Alternative 3 )

**Question No.48**

1.00

**Bookmark** 

A sewer, which receives sewage from the collection system and connects it to a point of final disposal plant is called \_\_\_\_\_.

- Separate sewer - (Alternative 3 )
- Outfall sewer - (Alternative 1 )**
- Branch sewer - (Alternative 4 )
- Lateral sewer - (Alternative 2 )

**Question No.49**

1.00

**Bookmark** 

The solution of the differential equation  $\frac{d^2y}{dt^2} + y = 0$  ,  $y(0)=0$ ,  $y\left(\frac{\pi}{2}\right) = -1$  is given by

- $y = -\sin t$  - (Alternative 2 )
- $y = -\cos t$  - (Alternative 3 )
- $y = \sin t$  - (Alternative 1 )
- $y = \cos t$  - (Alternative 4 )

**Question No.50**

1.00

**Bookmark** 

$L^{-1}\left\{\frac{1}{s^2(s+1)}\right\}$  is equal to

- $e^{-t} - 1 - t$  - (Alternative 4 )
- $e^{-t} + 1 - t$  - (Alternative 1 )
- $e^{-t} - 1 + t$  - (Alternative 2 )
- $e^{-t} + 1 + t$  - (Alternative 3 )

**Question No.51**

1.00

**Bookmark** 

The value of the integral  $\int_0^1 \int_0^{1-x} y \, dy \, dx$  is equal to

- $\frac{1}{6}$  - (Alternative 4 )
- $\frac{1}{2}$  - (Alternative 1 )
-

$\frac{1}{6}$  - (Alternative 3 )

$\frac{1}{3}$  - (Alternative 2 )

**Question No.52**

1.00

Bookmark

What is the factor of safety of a 20° slope of an infinite extent in a cohesion less soil whose angle of shearing resistance is 30°?

1.25 - (Alternative 1 )

2 - (Alternative 4 )

1.5 - (Alternative 2 )

1.75 - (Alternative 3 )

**Question No.53**

1.00

Bookmark

The Split spoon sampler is used for conducting\_\_\_\_\_.

Borehole shear test - (Alternative 1 )

Pressure meter test - (Alternative 3 )

Standard Penetration test - (Alternative 4 )

In situ vane shear test - (Alternative 2 )

**Question No.54**

1.00

Bookmark

As per IS 456:2000, the maximum quantity of cement for any concrete mix should not exceed\_\_\_\_\_.

100 kg - (Alternative 4 )

200 kg - (Alternative 1 )

450 kg - (Alternative 3 )

350 kg - (Alternative 2 )

**Question No.55**

1.00

Bookmark

The smallest soil particle which is visible to the naked eye has a size of about\_\_\_\_\_.

0.001 mm - (Alternative 1 )

0.01 mm - (Alternative 2 )

0.75 mm - (Alternative 4 )

0.075 mm - (Alternative 3 )

**Question No.56**

1.00

Bookmark

When the backfill with  $\phi = 30^\circ$  is subjected to a surcharge pressure  $q$ , the intensity of active earth pressure at the top of the backfill is\_\_\_\_\_.

$q/4$  - (Alternative 4 )

$q$  - (Alternative 1 )

$q/3$  - (Alternative 3 )

$q/2$  - (Alternative 2 )

**Question No.57**

1.00

Bookmark

In a compaction test, if the compaction effort is increased, the optimum moisture content \_\_\_\_\_.

Decreases - (Alternative 2 )

Is Consistent - (Alternative 3 )

Decreases first and then Increases - (Alternative 4 )

Increases - (Alternative 1 )

**Question No.58**

1.00

Bookmark

The depth of flow for maximum discharge through a circular channel of 1.0 m diameter is \_\_\_\_\_.

- 1.5 m - (Alternative 3 )
- 1.9 m - (Alternative 1 )
- 0.95 m - (Alternative 4 )**
- 1.7 m - (Alternative 2 )

**Question No.59**

1.00

**Bookmark**

If a continuous beam ABCDE is having DE as overhang, the distribution factors at joint D are:

- DF<sub>DC</sub> = 1, DF<sub>DE</sub> = 0 - (Alternative 4 )**
- DF<sub>DC</sub> = 0.75, DF<sub>DE</sub> = 0.25 - (Alternative 3 )
- DF<sub>DC</sub> = 0.5, DF<sub>DE</sub> = 0.5 - (Alternative 1 )
- DF<sub>DC</sub> = 0.25, DF<sub>DE</sub> = 0.75 - (Alternative 2 )

**Question No.60**

1.00

**Bookmark**

A simply supported beam of length 3 m carries two point loads of 1 kN each acting at a distance of 1 m from the supports. The value of maximum bending moment at mid span will be \_\_\_\_\_.

- 1.5 kN/M - (Alternative 3 )
- 0.5 kN/M - (Alternative 1 )
- 1 kN/M - (Alternative 4 )**
- 2 kN/M - (Alternative 2 )

**COMPUTER KNOWLEDGE - COMPUTER KNOWLEDGE**

**Question No.1**

1.00

**Bookmark**

The attribute AGE is calculated from DATE\_OF\_BIRTH. Thus the attribute AGE is a \_\_\_\_\_.

- composite attribute - (Alternative 2 )
- compound attribute - (Alternative 3 )
- simple attribute - (Alternative 1 )
- derived attribute - (Alternative 4 )**

**Question No.2**

1.00

**Bookmark**

Multimedia systems require hard real time scheduling to \_\_\_\_\_.

- ensure critical tasks will be serviced within timing deadlines - (Alternative 1 )**
- for security - (Alternative 4 )
- minimize the delay - (Alternative 3 )
- deliver the media file to the client - (Alternative 2 )

**Question No.3**

1.00

**Bookmark**

Unauthorized control over a web server and its associated software is called \_\_\_\_\_.

- Computer hacking - (Alternative 4 )
- Network hacking - (Alternative 1 )
- Website hacking - (Alternative 3 )**
- Ethical hacking - (Alternative 2 )

**Question No.4**

1.00

**Bookmark**

The full-form of MPEG is \_\_\_\_\_.

- Modify Pictures Editing Group - (Alternative 4 )
- Motion Pictures Experts Group - (Alternative 1 )
- Modify Pictures Experts Group - (Alternative 2 )
- Moving Pictures Experts Group - (Alternative 3 )**

**Question No.5**

1.00

**Bookmark**

Which among the following devices is used to transmit data over telecommunication lines?

- platform - (Alternative 4 )

- modems - (Alternative 1 )
- drives - (Alternative 3 )
- driver - (Alternative 2 )

**Question No.6**

1.00

Bookmark

The protocol used to find the hardware address of a local device is \_\_\_\_\_.

- ARP - (Alternative 2 )
- RARP - (Alternative 3 )
- IP - (Alternative 4 )
- ICMP - (Alternative 1 )

**Question No.7**

1.00

Bookmark

What is the maximum number of worksheets that can be created in three MS-Excel workbooks?

- 255 - (Alternative 4 )
- 765 - (Alternative 3 )
- 755 - (Alternative 2 )
- 721 - (Alternative 1 )

**Question No.8**

1.00

Bookmark

In which year was MS-Excel launched?

- 1985 - (Alternative 1 )
- 1992 - (Alternative 3 )
- 1987 - (Alternative 4 )
- 1986 - (Alternative 2 )

**Question No.9**

1.00

Bookmark

In which one of the following years was the optical mouse introduced?

- 1980 - (Alternative 2 )
- 1991 - (Alternative 3 )
- 1970 - (Alternative 1 )
- 1982 - (Alternative 4 )

**Question No.10**

1.00

Bookmark

What converts assembly level language into machine level language?

- Compiler - (Alternative 1 )
- Interpreter - (Alternative 3 )
- Assembler - (Alternative 2 )
- Processor - (Alternative 4 )

**GUJARATI LANGUAGE & GRAMMAR - GUJARATI LANGUAGE AND GRAMMAR**

**Question No.1**

1.00

Bookmark

જોડણીશુદ્ધિની દ્રષ્ટીએ નીચેમાંથી કયા જોડકાં/જોડકાંઓની જોડણી ખોટી છે?

1. માનવીય-માનનીય
2. આત્મીય-ભારતીય
3. માલવીયા-રજનિશ
4. માનસીક-પ્રાથમીક

- 3 - (Alternative 1 )
- 2 અને 4 - (Alternative 4 )
- 3 અને 4 - (Alternative 3 )
- 1 અને 4 - (Alternative 2 )

**Question No.2**

1.00

Bookmark

નીચેના પૈકી કયું વાક્ય ઉપમા અલંકારનું છે?



- યાંદની પૃથ્વી પર આશીર્વાદની જેમ પથરાય છે. - (Alternative 2 )
- જેઓ વૃક્ષને પ્રેમ નથી કરતા, એમનામાં જીવન પ્રત્યે પ્રેમ હોતો જ નથી. - (Alternative 1 )
- દીવા નથી દરબારમાં; છે અંધારું ધોરા! - (Alternative 4 )
- જો હોય સંપ કુટુંબમાં, શત્રુથી શું થાય? - (Alternative 3 )

**Question No.3**

1.00

Bookmark

ટાઢે પાણીએ ખસ જવી' કહેવતનો અર્થ દર્શાવો.

- આંખ મીચીને અંધારું કરવું. - (Alternative 4 )
- વગર મહેનતે મુશ્કેલી ટળવી. - (Alternative 1 )
- ન બોલવાનું બોલીને સંબંધ બગાડવો. - (Alternative 3 )
- ઠંડા પાણીએ સ્નાન કરીને શરદી મટાડવી. - (Alternative 2 )

**Question No.4**

1.00

Bookmark

નીચેના પૈકી કયું વાક્ય આજ્ઞાર્થ દર્શાવે છે?

- મહેશ ગઈકાલ સુધી શહેરમાં હતો. - (Alternative 2 )
- સૌને મારી યાદ આપજો. - (Alternative 1 )
- મિત્રો, હવે તો યા-કોફી વેશોને? - (Alternative 4 )
- કુંભાર માટલા ઘડે છે. - (Alternative 3 )

**Question No.5**

1.00

Bookmark

નીચેના પૈકી કયો શબ્દ 'દરિદ્ર'નો વિરુદ્ધાર્થી શબ્દ છે?

- ગરીબ - (Alternative 1 )
- કંગાળ - (Alternative 2 )
- શ્રીમંત - (Alternative 4 )
- આળસુ - (Alternative 3 )

**Question No.6**

1.00

Bookmark

સારું: નરસું :: શુકલ: ?

- સત્ય - (Alternative 1 )
- અજવાળિયું - (Alternative 4 )
- કૃષ્ણ - (Alternative 2 )
- અયોગ્ય - (Alternative 3 )

**Question No.7**

1.00

Bookmark

નીચેમાંથી કયો વિકલ્પ 'ચર્યા' શબ્દનો સમાનાર્થી નથી?

- પાલન - (Alternative 4 )
- આચરણ - (Alternative 2 )
- વર્તન - (Alternative 1 )
- ચરણ - (Alternative 3 )

**Question No.8**

1.00

Bookmark

ભારવાયક નિપાતનાં નીચે આપેલ ઉદાહરણમાંથી કયું અયોગ્ય છે?

- અમે તો આજે બહાર જવાના જ. - (Alternative 1 )
- તમે અમારી સાથે બહાર આવશો ને? - (Alternative 2 )
- મૂર્ખ લોકો સાથે ચર્યા ન કરવી એ જ ઉત્તમ. - (Alternative 4 )
- મને તો કંઈ જ સંભળાયું નથી. - (Alternative 3 )

**Question No.9**

1.00

Bookmark

પાણીમાં લીટા તાણવાની સમાનાર્થી કહેવત કઈ છે?

- જળ મુકવું - (Alternative 1 )
- પત્તાનો મહેલ યણવો - (Alternative 4 )**
- એક સાથે બે ધોડે યડવું - (Alternative 3 )
- હજાર ઘંટીનો લોટ ખાવો - (Alternative 2 )

**Question No.10**

1.00

Bookmark

નીચે આપેલ વિધાનના કયા ભાગમાં શુદ્ધિ નથી?

રોજ સવારે મંદિરે જઈ હાથ જોડી નમન કરી આરતી કરાવી એ એનો નિત્યક્રમ હતો.

- એ એનો નિત્યક્રમ હતો - (Alternative 1 )
- નમન કરી આરતી કરાવી. - (Alternative 4 )**
- રોજ સવારે મંદિરે - (Alternative 2 )
- જઈ હાથ જોડી - (Alternative 3 )