

Andhra Pradesh State Council of Higher Education

Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

Question Paper Name :	Civil Engineering 3rd May 2024 Shift 1
Duration :	120
Total Marks :	140
Display Marks:	No
Share Answer Key With Delivery Engine :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	Yes
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No

Show Progress Bar :	No
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Research Methodology

Section Id :	971036429
Section Number :	1
Mandatory or Optional :	Mandatory
Number of Questions :	66
Section Marks :	70
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 1 Question Id : 97103630175 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is the main objective of teaching?

Options :

1. ✘ To give information related to the syllabus
2. ✘ Help the students in getting jobs
3. ✔ To develop thinking capability of students

4. ✘ Prepare the students for examination.

Question Number : 2 Question Id : 97103630176 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not a level of teaching learning?

Options :

1. ✘ Memory level

2. ✔ Differentiation level

3. ✘ Reflective level

4. ✘ Understanding level

Question Number : 3 Question Id : 97103630177 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An effective teacher will ensure _____

Options :

1. ✘ Laissez-failure

2. ✘ Competition among students

3. ✔ Competition or cooperation as the situation demands

4. ✘ Cooperation among his students

Question Number : 4 Question Id : 97103630178 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Morphograph is the term associated with _____

Options :

1. ✔ Corrective spelling
2. ✘ Corrective learning
3. ✘ Corrective behavior
4. ✘ Corrective reading

Question Number : 5 Question Id : 97103630179 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is NOT associated with micro-teaching ?

Options :

1. ✘ Knowledge acquiring
2. ✘ Skill training
3. ✔ Atomic teaching procedure

4. ✘ Content transfer

Question Number : 6 Question Id : 97103630180 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The main aim of 'National Council for Teacher Education' is _____

Options :

1. ✘ To promote research in education
2. ✔ To maintain standards in colleges of education
3. ✘ To provide grant to colleges of education
4. ✘ To open colleges in education

Question Number : 7 Question Id : 97103630181 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is a Massive Open Online Course (MOOCs) platform created by the MHRD, Govt. of India?

Options :

1. ✔ SWAYAM
2. ✘ PRATHAM

3. ✘ OPEN LEARN

4. ✘ FUTURE LEARN

Question Number : 8 Question Id : 97103630182 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following does not belong to a projected aid?

Options :

1. ✘ Overhead projector

2. ✔ Black board

3. ✘ Epidiascope

4. ✘ Slide projector

Question Number : 9 Question Id : 97103630183 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The purpose of formative evaluation is to _____

Options :

1. ✔ Accelerate student's learning performance

2. ✘ Provide a feedback to teacher effectiveness
3. ✘ Grade students learning outcomes
4. ✘ Check student's performance graph

Question Number : 10 Question Id : 97103630184 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assertion (A): Learning is a lifelong process

Reason (R): Learning to be useful must be linked with life process.

Choose correct answer from the following

Options :

1. ✔ Both (A) and (R) are true and (R) is the correct explanation of (A)
2. ✘ Both (A) and (R) are true, but (R) is not the correct explanation of (A)
3. ✘ (A) is true, but (R) is false
4. ✘ (A) is false, but (R) is true

Question Number : 11 Question Id : 97103630185 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

'Gyan Darshan' launched by IGNOU refers to which one of the following?

Options :

1. ✓ Satellite based educational T.V. channel
2. ✗ Educational F.M radio network
3. ✗ Global initiative of academic networks
4. ✗ Online courses

Question Number : 12 Question Id : 97103630186 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the sets of activities best indicate the cyclic nature of action research strategy?

Options :

1. ✗ Reflect, Observe, Plan, Act
2. ✓ Plan, Act, Observe, Reflect
3. ✗ Act, Plan, Observe, Reflect
4. ✗ Observe, Act, Reflect, Plan

Question Number : 13 Question Id : 97103630187 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Which of the following research types has a potential for enhancing teaching competencies?

Options :

1. ✘ Fundamental research
2. ✘ Applied research
3. ✘ Impact assessment research
4. ✔ Action research

Question Number : 14 Question Id : 97103630188 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Which of the following is the main aim of interdisciplinary research?

Options :

1. ✔ To bring out holistic approach to research
2. ✘ To over simplify the problem of research
3. ✘ To reduce the emphasis of single subject in research domain
4. ✘ To create a new trend in research methods

Question Number : 15 Question Id : 97103630189 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Manipulation is always a part of _____

Options :

1. ✘ Fundamental research
2. ✘ Descriptive research
3. ✔ Experimental research
4. ✘ Historical research

Question Number : 16 Question Id : 97103630190 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A thesis statement is _____

Options :

1. ✘ A fact
2. ✘ An observation
3. ✘ A discussion
4. ✔ An Assumption

Question Number : 17 Question Id : 97103630191 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is an indication of the quality of a research journal?

Options :

1. ✘ g-index
2. ✘ h-index
3. ✔ impact factor
4. ✘ i10-index

Question Number : 18 Question Id : 97103630192 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A hypothesis is a _____

Options :

1. ✘ Postulate
2. ✘ Law
3. ✘ Canon
4. ✔ Supposition

Question Number : 19 Question Id : 97103630193 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Ethical norms in research do not involve guidelines for _____

Options :

1. ✘ Copyright

2. ✔ Thesis format

3. ✘ Patenting policy

4. ✘ Data sharing policies

Question Number : 20 Question Id : 97103630194 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is a research tool?

Options :

1. ✘ Illustration

2. ✘ Graph

3. ✔ Questionnaire

4. ✖ Diagram

Is Section Default? : null

Question Id : 97103630195 Sub Question Shuffling Allowed : Yes Group Comprehension

Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A

Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (21 to 25)

Read the Passage and answer the following questions:

The Taj Mahal has become one of the world's best known monuments. This domed white marble structure is situated on a high plinth at the southern end of a four-quartered garden, evoking the gardens of paradise, enclosed within walls measuring 305 by 549 metres. Outside the walls, in an area known as Mumtazabad, were living quarters for attendants, markets, serais and other structures built by local merchants and nobles. The tomb complex and the other imperial structures of Mumtazabad were maintained by the income of thirty villages given specifically for the tomb's support. The name Taj Mahal is unknown in Mughal chronicles, but it is used by contemporary Europeans in India, suggesting that this was the tomb's popular name. In contemporary texts, it is simply called the illuminated tomb (Rauza-i-Munavvara).

Mumtaz Mahal died shortly after delivering her fourteenth child in 1631. The Mughal court was then residing in Burhanpur. Her remains were temporarily buried by the grief-stricken emperor in a spacious garden known as Zainabad on the bank of the river Tapti. Six months later, her body was transported to Agra, where it was interred in land chosen for the mausoleum. This land, situated south of the Mughal city on the bank of the Jamuna, had belonged to the Kachwaha rajas since the time of Raja Man Singh and was purchased from the then current raja, Jai Singh. Although contemporary chronicles indicate Jai Singh's willing cooperation in this exchange, extant farmans (imperial commands) indicate that the final price was not settled until almost two years after the mausoleum's commencement. Jai Singh's further cooperation was insured by imperial orders issued between 1632 and 1637 demanding that he provide stone masons and carts to transport marble from the mines at Makrana, within his 'ancestral domain', to Agra where both the Taj Mahal and Shah Jahan's additions to the Agra fort were constructed concurrently.

Work on the mausoleum was commenced early in 1632. Inscriptional evidence indicates much of the tomb was completed by 1636. By 1643, when Shah Jahan most lavishly celebrated the 'Urs ceremony for Mumtaz Mahal', the entire complex was virtually complete.

Sub questions

Question Number : 21 Question Id : 97103630196 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Marble stone used for the construction of Taj Mahal was brought from the ancestral domain of Raja Jai Singh. The name of the place where mines of marble were situated, is _____

Options :

1. ✘ Burhanpur
2. ✔ Makrana
3. ✘ Amber
4. ✘ Jaipur

Question Number : 22 Question Id : 97103630197 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The popular name Taj Mahal was given by____

Options :

1. ✘ Shah Jahan
2. ✘ Muntaz Mahal
3. ✘ Jai Singh
4. ✔ Europeans

Question Number : 23 Question Id : 97103630198 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Point out the true statement from the following.

Options :

1. ✘ Marble was not used for construction of the Taj Mahal.
2. ✘ Red sand stone is non-visible in Taj Mahal complex.
3. ✔ The Taj Mahal is surrounded by a four-quartered garden known as Chahr Bagh
4. ✘ The Taj Mahal was constructed to celebrate the 'Urs ceremony for Mumtaz Mahal'

Question Number : 24 Question Id : 97103630199 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the contemporary texts, Taj Mahal is known _____

Options :

1. ✘ Mumtazabad
2. ✘ Mumtaz Mahal
3. ✘ Zainabad
4. ✔ Rauza-i-Munavvara

Question Number : 25 Question Id : 97103630200 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The document indicating the ownership of land, where Taj Mahal was built, is known as __

Options :

1. ✓ Farman
2. ✗ Sale deed
3. ✗ Sale-purchase deed
4. ✗ Gift deed

Is Section Default? : null

Question Number : 26 Question Id : 97103630201 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Telephone is an example of _____

Options :

1. ✓ Linear communication
2. ✗ Non-linear communication
3. ✗ Circular communication

4. ✘ Mechanized communication

Question Number : 27 Question Id : 97103630202 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The mode of communication that involves a single source transmitting information to a large number of receivers simultaneously, is called _____

Options :

1. ✘ Group communication
2. ✔ Mass communication
3. ✘ Interpersonal communication
4. ✘ Intrapersonal communication

Question Number : 28 Question Id : 97103630203 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In communication, the language is _____

Options :

1. ✘ The non-verbal code
2. ✔ The verbal code

3. ✘ The symbolic code

4. ✘ The iconic code

Question Number : 29 Question Id : 97103630204 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Chatting in internet is _____ type of communication

Options :

1. ✘ Parallel communication

2. ✘ Grapevine communication

3. ✔ Verbal communication

4. ✘ Non-verbal communication

Question Number : 30 Question Id : 97103630205 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which group of communicating aspects does not disrupt the communication process in the class?

Options :

1. ✘ Evaluating - focusing - exaggerating

2. ✓ Focusing – illustrating - exaggerating

3. ✘ Evaluating – focusing - illustrating

4. ✘ Reversing – Evaluating – focusing

Question Number : 31 Question Id : 97103630206 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following can be termed as verbal communication?

Options :

1. ✘ The child was crying to the attention of the mother

2. ✘ Signal at the cross-road changed from green to orange

3. ✓ Professor RAM delivered the lecture in the class room

4. ✘ Deepika wrote a letter for leave application

Question Number : 32 Question Id : 97103630207 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The first Indian satellite for serving the educational sector is _____

Options :

1.

✘ INSAT-B

2. ✔ EDUSAT

3. ✘ INSAT-C

4. ✘ SATEDU

Question Number : 33 Question Id : 97103630208 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In analog mass communication, stories are _____

Options :

1. ✔ Static

2. ✘ Dynamic

3. ✘ Interactive

4. ✘ Exploratory

Question Number : 34 Question Id : 97103630209 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a certain code MANISH is written as NZMRHS, then how will RANJITA be written in the same code?

Options :

1. ✘ IZMPRGZ
2. ✘ IZMQRIZ
3. ✔ IZMQRGZ
4. ✘ IZMQRHZ

Question Number : 35 Question Id : 97103630210 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A is father of C and D is son of B. E is brother of A. If C is sister of D, how is B related to E?

Options :

1. ✘ Brother-in-law
2. ✔ Sister-in-law
3. ✘ Husband
4. ✘ Daughter

Question Number : 36 Question Id : 97103630211 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Complete the series Q1F, S2E, U6D, W21C, _____

Options :

1. ✘ Y66B

2. ✘ Y44B

3. ✔ Y88B

4. ✘ Z88B

Question Number : 37 Question Id : 97103630212 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If SHARP is coded as 58034 and PUSH is coded as 4658 then RUSH is coded as ____

Options :

1. ✘ 3568

2. ✔ 3658

3. ✘ 3685

4. ✘ 3583

Question Number : 38 Question Id : 97103630213 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

RIDE : LNBE :: HELP : ?

Options :

1. ✘ NINP

2. ✘ BAJP

3. ✔ BJJP

4. ✘ JPCH

Question Number : 39 Question Id : 97103630214 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The ratio of the boys and girls in a school is 7:6. If 100 boys join in the school, the ratio would become 5:4 then the number of girls in the school is _____

Options :

1. ✘ 200

2. ✘ 800

3. ✔ 1200

4. ✘ 1600

Question Number : 40 Question Id : 97103630215 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the least number to be subtracted from 696 to be it a perfect square?

Options :

1. ✘ 1

2. ✘ 16

3. ✔ 20

4. ✘ 71

Question Number : 41 Question Id : 97103630216 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a trader sold two cars each at Rs.325475 and gains 12% on the first and losses 12% on the second, then his profit or loss percentage on the whole is _____

Options :

1. ✘ 14.4% profit

2. ✔ 1.44% loss

3. ✘ 14.4% loss

4. ✘ 0%

Question Number : 42 Question Id : 97103630217 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

At what rate of interest is an amount doubled in two years, when compounded annually?

Options :

1. ✘ 30 %

2. ✘ 45.2 %

3. ✔ 41.4 %

4. ✘ 73.2 %

Question Number : 43 Question Id : 97103630218 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If 24 men can do a work in 35 days, how many men are required to complete the work in 21 days?

Options :

1. ✘ 38

2. ✘ 36

3. ✔ 40

4. ✘ 42

Question Number : 44 Question Id : 97103630219 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A train travels for 9 hours. It travelled the first half of the distance at 12 kmph and remaining distance at 15 kmph. Find the distance.

Options :

1. ✔ 120

2. ✘ 180

3. ✘ 920

4. ✘ 60

Question Number : 45 Question Id : 97103630220 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following groups of fractions is in descending order?

Options :

1. ✘ $\frac{8}{5}, \frac{9}{13}, \frac{6}{11}$

2. ✘ $\frac{8}{15}, \frac{6}{11}, \frac{9}{13}$

3. ✔ $\frac{9}{13}, \frac{6}{11}, \frac{8}{15}$

4. ✘ $\frac{6}{11}, \frac{8}{15}, \frac{9}{13}$

Question Number : 46 Question Id : 97103630221 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Consider the statements :

- I. I watch TV only if I am bored
- II. I am never bored when I have my brother's company
- III. Whenever I go to the theatre I take my brother along.

Which one of the following conclusions is valid in the content of the above statements.

Options :

1. ✘ If I am bored, I watch TV

2. ✘ If I am bored, I seek my brother's company.

3. ✘ If I am not with my brother, then I watch TV

4. ✔ If I am not bored, I do not watch TV

Question Number : 47 Question Id : 97103630222 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Find the number of triangles in the given figure.



Options :

1. ✘ 8

2. ✘ 10

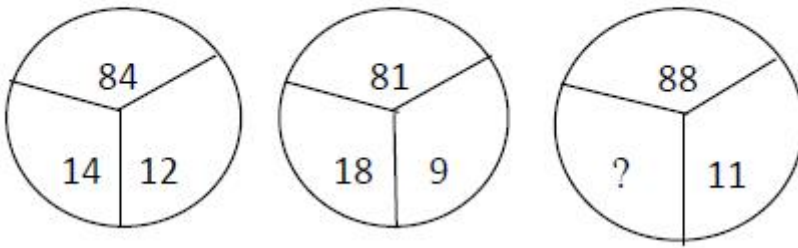
3. ✔ 14

4. ✘ 12

Question Number : 48 Question Id : 97103630223 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Select the missing number from the following.



Options :

1. ✘ 10

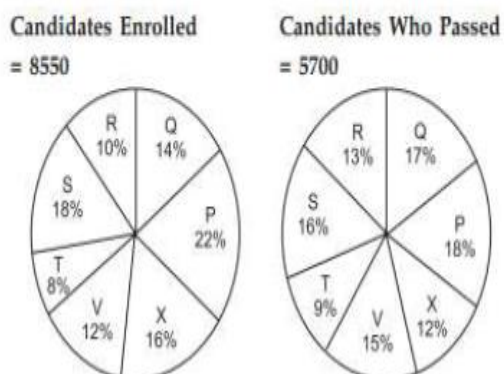
2. ✘ 12

3. ✘ 14

4. ✔ 16

Question Number : 49 Question Id : 97103630224 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



What percentage of candidates passed the Exam from institute T out of the total number of candidates enrolled from the same institute?

Options :

1. ✘ 50%

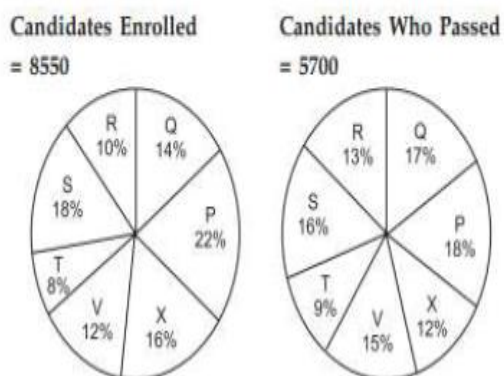
2. ✘ 62.5%

3. ✔ 75%

4. ✘ 80%

Question Number : 50 Question Id : 97103630225 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



What is the ratio of candidates passed to the candidates enrolled from institute P?

Options :

1. ✘ 9 : 11

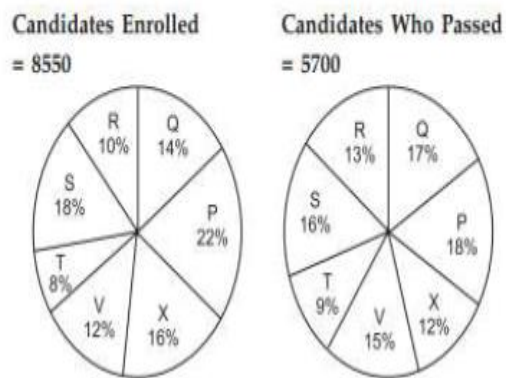
2. ✘ 14 : 17

3. ✔ 6 : 11

4. ✘ 9 : 17

Question Number : 51 Question Id : 97103630226 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



What is the percentage of candidates passed to the candidates enrolled for institutes Q and R together?

Options :

1. ✘ 68%

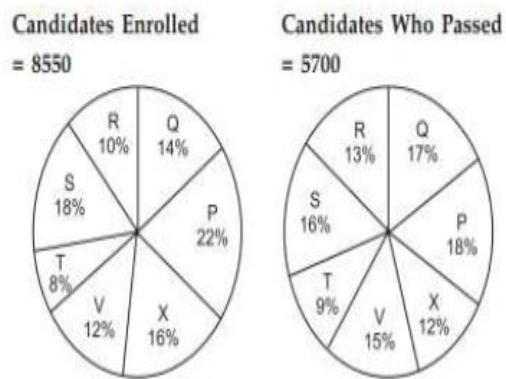
2. ✔ 83%

3. ✘ 74%

4. ✘ 65%

Question Number : 52 Question Id : 97103630227 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



Which institute has the highest percentage of candidates passed to the candidates enrolled?

Options :

1. ✘ Q

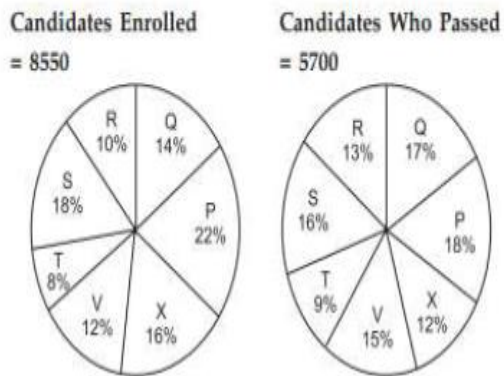
2. ✔ R

3. ✘ V

4. ✘ T

Question Number : 53 Question Id : 97103630228 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



The number of candidates passed from institutes S and P together exceeds the number of candidates enrolled from institutes T and R together by

Options :

1. ✘ 228

2. ✘ 279

3. ✔ 399

4. ✘ 407

Question Number : 54 Question Id : 97103630229 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not a network device?

Options :

1. ✓ CPU

2. ✗ Switch

3. ✗ Hub

4. ✗ Router

Question Number : 55 Question Id : 97103630230 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A Gigabyte is equal to _____

Options :

1. ✗ 1024 bytes

2. ✗ 1024 kilobytes

3. ✓ 1024 megabytes

4. ✗ 1024 terabytes

Question Number : 56 Question Id : 97103630231 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A computer program that translates a program statement by statement into machine language is called _____

Options :

1. ✘ A compiler
2. ✔ An interpreter
3. ✘ A translator
4. ✘ A simulation

Question Number : 57 Question Id : 97103630232 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is correct for $(17)_{10}$.

Options :

1. ✘ $(10011)_2$
2. ✘ $(10111)_2$
3. ✔ $(10001)_2$

4. ✘ $(11001)_2$

Question Number : 58 Question Id : 97103630233 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following protocol supports to link from one webpage to another page?

Options :

1. ✘ HTML

2. ✘ IP

3. ✘ FTP

4. ✔ HTTP

Question Number : 59 Question Id : 97103630234 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is the biggest news agency in India?

Options :

1. ✘ UNI

2. ✔ PTI

3. ✘ NAAP

4. ✖ Samachar Bharathi

Question Number : 60 Question Id : 97103630235 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The purpose of ICT use in education is to _____

Options :

1. ✖ Make teaching interesting
2. ✖ Attract students
3. ✔ Optimize learning process
4. ✖ Promote technology in teaching

Question Number : 61 Question Id : 97103630236 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following mobile payment application is developed by the National Payments Corporation of India based on UPI?

Options :

1. ✖ MYGOV

2. ✓ BHIM

3. ✗ UMANG

4. ✗ Phone pay

Question Number : 62 Question Id : 97103630237 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assertion(A): Night time temperature in the central parts of a city are generally higher than those over the surrounding rural areas.

Reason(R): Radiation losses over the urban areas are less than that over the rural areas.

Choose the correct answer from the options given below.

Options :

1. ✓ Both (A) and (R) are true and (R) is the correct explanation of (A).

2. ✗ Both (A) and (R) are true but (R) is not the correct explanation of (A).

3. ✗ (A) true, but (R) is false.

4. ✗ (A) is false, but (R) is true

Question Number : 63 Question Id : 97103630238 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following activity contributes more to water pollution than any other throughout world?

Options :

1. ✘ Industry
2. ✘ Hydroelectric power generation
3. ✘ Urbanization
4. ✔ Agriculture

Question Number : 64 Question Id : 97103630239 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not a water-borne disease?

Options :

1. ✘ Cholera
2. ✘ Hepatitis
3. ✘ Typhoid
4. ✔ Dengue

Question Number : 65 Question Id : 97103630240 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not a renewable natural resource?

Options :

1. ✘ Fresh water

2. ✘ Clean water

3. ✔ Salt

4. ✘ Fertile soil

Question Number : 66 Question Id : 97103630241 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The chemical formula for Baking soda is _____

Options :

1. ✘ NH_4Cl

2. ✔ NaHCO_3

3. ✘ $\text{Na}_2\text{CO}_3\text{H}_2\text{O}$

4. ✘ CH_3COOH

Question Number : 67 Question Id : 97103630242 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which was the Cultural Capital of Andhra Pradesh?

Options :

1. ✘ Tirupati

2. ✘ Visakhapatnam

3. ✔ Rajamahendravaram

4. ✘ Amaravathi

Question Number : 68 Question Id : 97103630243 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Koundinya wildlife sanctuary is located in which of the following states?

Options :

1. ✔ Andhra Pradesh

2. ✘ Kerala

3. ✘ Tamil Nadu

4. ✘ Karnataka

Question Number : 69 Question Id : 97103630244 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

National council for women education was established in _____

Options :

1. ✔ 1958

2. ✘ 1976

3. ✘ 1989

4. ✘ 1965

Question Number : 70 Question Id : 97103630245 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Autonomy in higher education system implies freedom in _____

Options :

1. ✘ Administration

2. ✓ Curriculum development

3. ✘ Finance

4. ✘ Policy-making

Civil Engineering

Section Id :	971036430
Section Number :	2
Mandatory or Optional :	Mandatory
Number of Questions :	70
Section Marks :	70
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 71 Question Id : 97103630246 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is y's derivative in relation to x if $y = \cos(x^2)$?

Options :

1. ✘ $\sin(x^2)$

2. ✘ $-\sin x^2$

3. ✘ $2x \sin(x^2)$

4. ✔ $-2x \sin(x^2)$

Question Number : 72 Question Id : 97103630247 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $y = x^x$, what is the value of dy/dx at $x = 1$?

Options :

1. ✘ 0

2. ✔ 1

3. ✘ -1

4. ✘ 2

Question Number : 73 Question Id : 97103630248 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The solution of $\int 6x(x^2+6) dx$ is

Options :

1. ✔ $\frac{3}{2}x^4 + 8x^2 + C$

2. ✘ $\frac{3}{2}x^4 - 18x^2 + C$

3. ✘ $3x^4 + 18x^2 + C$

4. ✘ $3x^4 - 18x^2 + C$

Question Number : 74 Question Id : 97103630249 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following mentioned standard Probability density functions is applicable to discrete Random Variables?

Options :

1. ✘ Gaussian Distribution

2. ✔ Poisson Distribution

3. ✘ Rayleigh Distribution

4. ✘ Exponential Distribution

Question Number : 75 Question Id : 97103630250 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the time required for 50% consolidation of a remoulded sample of clay with single drainage is 't', the time required to consolidate the same sample of clay with same degree of consolidation but with double drainage is

Options :

1. ✘ $t/2$

2. ✔ $t/4$

3. ✘ t

4. ✘ $2t$

Question Number : 76 Question Id : 97103630251 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A clean dry sand sample is tested in a direct shear test. The normal stress and the shear stress at failure are both equal to 120 kPa. The angle of shearing resistance of sand will be

Options :

1. ✘ 25°

2. ✔ 45°

3. ✘ 35°

4. ✘ 55°

Question Number : 77 Question Id : 97103630252 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The maximum number of steps in a flight generally should not be less than

Options :

1. ✘ 14

2. ✘ 10

3. ✘ 16

4. ✔ 12

Question Number : 78 Question Id : 97103630253 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For walls, columns and vertical faces of all structural members, the formwork is generally removed after

Options :

1. ✔ 24 to 48 hours

2. ✘ 3 days

3. ✘ 7 days

4. ✘ 14 days

Question Number : 79 Question Id : 97103630254 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In PERT analysis, the time estimates of activities and probability of their occurrence follow

Options :

1. ✘ Normal distribution curve
2. ✘ Poisson's distribution curve
3. ✔ β - distribution curve
4. ✘ Binomial distribution curve

Question Number : 80 Question Id : 97103630255 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Two bars of different materials are of the same size and length and are subjected to same tensile forces. If the bars have elongations in the ratio of 4:7, the ratio of moduli of elasticity of the two materials is

Options :

1. ✘ 4 : 7
2. ✔ 7 : 4

3. ✘ 4 : 17

4. ✘ 16 : 49

Question Number : 81 Question Id : 97103630256 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Shear stress on principal plane is

Options :

1. ✘ Minimum

2. ✘ Maximum

3. ✔ Zero

4. ✘ Infinity

Question Number : 82 Question Id : 97103630257 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A prismatic beam fixed at both the ends carry uniformly distributed load. The ratio of bending moment at the supports to the bending moment at mid span is

Options :

1. ✔ 2.0

2. ✘ 1.5

3. ✘ 1.0

4. ✘ 0.5

Question Number : 83 Question Id : 97103630258 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The ratio of maximum shear stress to the average shear stress in a circular cross section is

Options :

1. ✘ $9/8$

2. ✔ $4/3$

3. ✘ $3/2$

4. ✘ $8/3$

Question Number : 84 Question Id : 97103630259 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the length of a simply supported beam carrying a concentrated load at the center is doubled, the deflection at the centre will become

Options :

1. ✘ Two times
2. ✘ Four times
3. ✔ Eight times
4. ✘ Sixteen times

Question Number : 85 Question Id : 97103630260 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Method of joints is applicable only when the number of unknown forces at the joint under consideration is not more than

Options :

1. ✘ 1
2. ✔ 2
3. ✘ 3
4. ✘ 4

Question Number : 86 Question Id : 97103630261 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a thin cylindrical shell, the ratio of hoop stress to longitudinal stress is

Options :

1. ✘ 0.5

2. ✘ 1

3. ✔ 2

4. ✘ 4

Question Number : 87 Question Id : 97103630262 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not a displacement method?

Options :

1. ✘ Equilibrium method

2. ✔ Column analogy method

3. ✘ Moment distribution method

4. ✘ Kani's method

Question Number : 88 Question Id : 97103630263 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

The deformation of a spring produced by a unit load is called

Options :

1. ✘ Stiffness
2. ✔ Flexibility
3. ✘ Influence coefficient
4. ✘ Unit strain

Question Number : 89 Question Id : 97103630264 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

The moment required to rotate the near end of a prismatic beam through unit angle, without translation, the far end being fixed, is given by

Options :

1. ✘ EI/L
2. ✘ $2EI/L$
3. ✘ $3EI/L$
4. ✔ $4EI/L$

Question Number : 90 Question Id : 97103630265 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The clearance for Bolt-hole for a 20 mm size bolt is _____

Options :

1. ✘ 1.0 mm

2. ✘ 1.5 mm

3. ✔ 2.0 mm

4. ✘ 2.5 mm

Question Number : 91 Question Id : 97103630266 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Economical depth of a plate girder corresponds to

Options :

1. ✔ Minimum weight

2. ✘ Minimum depth

3. ✘ Maximum weight

4.

✘ Minimum thickness of web

Question Number : 92 Question Id : 97103630267 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

As per IS: 800, the maximum bending moment for design of purlins can be taken as

Options :

1. ✘ $WL/6$

2. ✘ $WL/8$

3. ✓ $WL/10$

4. ✘ $WL/12$

Question Number : 93 Question Id : 97103630268 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Battens provided for a compression member shall be designed to carry a transverse shear equal to

Options :

1. ✓ 2.5% of axial force in member

2. ✘ 5% of axial force in member

3. ✘ 10% of axial force in member

4. ✘ 20% of axial force in member

Question Number : 94 Question Id : 97103630269 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The allowable stresses for the design of steel tanks are taken as

Options :

1. ✘ Given in IS:800

2. ✔ 1.25 times the values in IS: 800

3. ✘ 0.8 times the values in IS: 800

4. ✘ 0.67 times the values in IS: 800

Question Number : 95 Question Id : 97103630270 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The minimum diameter of longitudinal bars in a column is

Options :

1. ✘ 6 mm

2.

✘ 8 mm

3. ✔ 12 mm

4. ✘ 16 mm

Question Number : 96 Question Id : 97103630271 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The slab is designed as one way, if the ratio of long span to short span is

Options :

1. ✘ Less than 1

2. ✘ Between 1 and 1.5

3. ✘ Between 1.5 and 2

4. ✔ Greater than 2

Question Number : 97 Question Id : 97103630272 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In reinforced concrete footing on soil, the minimum thickness at edge should not be less than

Options :

1. ✘ 100 mm

2. ✔ 150 mm

3. ✘ 200 mm

4. ✘ 250 mm

Question Number : 98 Question Id : 97103630273 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For a cantilever of effective depth of 0.5 m, the maximum span to satisfy vertical deflection limit is

Options :

1. ✔ 3.5 m

2. ✘ 4.0 m

3. ✘ 4.5 m

4. ✘ 5.0 m

Question Number : 99 Question Id : 97103630274 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

For concreting of heavily reinforced sections without vibration, the workability of concrete expressed as compacting factor should be

Options :

1. ✘ 0.75 to 0.80
2. ✘ 0.80 to 0.85
3. ✘ 0.85 to 0.92
4. ✔ above 0.92

Question Number : 100 Question Id : 97103630275 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A soil has bulk density 21 kN/m^3 and water content 5%. The dry density of soil is

Options :

1. ✘ 18.6 kN/m^3
2. ✔ 20 kN/m^3
3. ✘ 22 kN/m^3
4. ✘ 23 kN/m^3

Question Number : 101 Question Id : 97103630276 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The hydraulic head that would produce a quick condition in a sand stratum of thickness 1.5 m, specific gravity 2.67 and void ratio 0.67 is equal to

Options :

1. ✓ 1.5 m
2. ✗ 1.0 m
3. ✗ 2.0 m
4. ✗ 3.0 m

Question Number : 102 Question Id : 97103630277 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Rise of water table above the ground surface causes

Options :

1. ✓ Equal in pore water pressure and total stress
2. ✗ Equal decrease in pore water pressure and total stress
3. ✗ Increase in pore water pressure but decrease in total stress

4. ✘ Decrease in pore water pressure but increase in total stress

Question Number : 103 Question Id : 97103630278 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Vertical stress on a vertical line at a constant radial distance from the axis of a vertical load

Options :

1. ✘ Is small at all depths
2. ✘ Increases with depth
3. ✔ First increases, attains a maximum value and then decreases
4. ✘ First decreases, attains a minimum value and then increases

Question Number : 104 Question Id : 97103630279 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Increase in the amount of compaction energy on soil results in

Options :

1. ✘ Increase in OMC and decrease in MDD
2. ✔ Decrease in OMC and increase in MDD

3. ✘ Both the OMC and MDD increases
4. ✘ Both the OMC and MDD decreases

Question Number : 105 Question Id : 97103630280 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a consolidated drained test on a normally consolidated clay, the volume of the soil sample during shear

Options :

1. ✔ Decreases
2. ✘ Increases
3. ✘ Remains unchanged
4. ✘ First increase and then decreases

Question Number : 106 Question Id : 97103630281 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Rankine's theory of earth pressure assumes that the back of the wall is

Options :

1. ✘ Plane and smooth

2. ✘ Plane and rough

3. ✔ Vertical and smooth

4. ✘ Vertical and rough

Question Number : 107 Question Id : 97103630282 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Two footings, one circular and the other square, are founded in pure clay. The diameter of the circular footing is the same as the side of the square footing. The ratio of their net ultimate bearing capacities is

Options :

1. ✔ 1.0

2. ✘ 1.3

3. ✘ 2.0

4. ✘ 2.3

Question Number : 108 Question Id : 97103630283 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Contact pressure beneath a rigid footing resting on cohesive soils is

Options :

1. ✘ Less at edges compared to middle
2. ✘ Maximum at middle and zero at edges
3. ✘ Uniform throughout
4. ✔ More at edges compared to middle

Question Number : 109 Question Id : 97103630284 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For undisturbed sampling, the area ratio of a thin wall sampler should not normally exceed

Options :

1. ✔ 10%
2. ✘ 20%
3. ✘ 30%
4. ✘ 40%

Question Number : 110 Question Id : 97103630285 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The principle of working from whole to part is used in surveying because

Options :

1. ✘ Plotting becomes easy
2. ✘ Survey work can be completed quickly
3. ✔ Accumulation of errors can be prevented
4. ✘ Less man power is sufficient

Question Number : 111 Question Id : 97103630286 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The rise and fall method of leveling provides a complete check on

Options :

1. ✘ Back sight
2. ✘ Intermediate sight
3. ✘ Foresight
4. ✔ All the above

Question Number : 112 Question Id : 97103630287 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the intercept on a vertical staff is observed as 0.5 m from a tacheometer, the horizontal distance between tacheometer and the staff station is

Options :

1. ✘ 5.0 m

2. ✘ 25 m

3. ✘ 75 m

4. ✔ 50 m

Question Number : 113 Question Id : 97103630288 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the fore bearing of a line is $N 26^{\circ}35' W$, its back bearing will be

Options :

1. ✔ $S 26^{\circ}35' E$

2. ✘ $S 26^{\circ}35' W$

3. ✘ $N 26^{\circ}35' E$

4. ✘

N 26°35' W

Question Number : 114 Question Id : 97103630289 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In any closed traverse, if the survey work is correct

Options :

1. ✘ The algebraic sum of latitudes should not be equal to zero
2. ✘ The algebraic sum of departures should not be equal to zero
3. ✘ The sum of northings should not be equal to the sum of the southings
4. ✔ The algebraic sum of latitudes should be zero

Question Number : 115 Question Id : 97103630290 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following formats can be used for GIS output?

Options :

1. ✘ DXF
2. ✘ PDF
3. ✔ GIF

4. ✘ HTML

Question Number : 116 Question Id : 97103630291 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which among the following doesn't indicate the basic calculation of the total station?

Options :

1. ✘ Horizontal distance
2. ✔ Slope distance
3. ✘ Vertical distance
4. ✘ Co-ordinate calculations

Question Number : 117 Question Id : 97103630292 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The dynamic viscosity of a fluid is 0.5 Poise and specific gravity is 0.5, then the kinematic viscosity of that fluid in Stokes is

Options :

1. ✘ 0.25
2. ✘ 0.50

3. ✘ 0.75

4. ✔ 1.00

Question Number : 118 Question Id : 97103630293 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The position of center of pressure on a plane surface immersed vertically in a static mass of fluid is

Options :

1. ✘ At the centroid of the submerged area

2. ✘ Always above the centroid of the area

3. ✔ Always below the centroid of the area

4. ✘ Towards left of the centroid

Question Number : 119 Question Id : 97103630294 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When the velocity distribution is uniform over the cross section, the correction factor for momentum is

Options :

1. ✘ 0

2. ✔ 1

3. ✘ $4/3$

4. ✘ $3/4$

Question Number : 120 Question Id : 97103630295 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For a laminar flow in a pipe of circular cross-section, the Darcy's friction factor 'f' is

Options :

1. ✘ Directly proportional to Reynolds number and independent of pipe wall roughness

2. ✘ Directly proportional to pipe wall roughness and independent of Reynolds number

3. ✔ Inversely proportional to Reynolds number and independent of pipe wall roughness

4. ✘ Inversely proportional to Reynolds number and directly proportional to pipe wall roughness

Question Number : 121 Question Id : 97103630296 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For maximum discharge in a circular channel section, the ratio of the depth of flow to that of diameter of the channel is

Options :

1. ✘ 0.3
2. ✘ 0.5
3. ✘ 0.81
4. ✔ 0.95

Question Number : 122 Question Id : 97103630297 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The specific speed of a turbine is defined as the speed of a unit of such a size that it

Options :

1. ✘ Delivers unit discharge at unit head
2. ✘ Delivers unit discharge at unit power
3. ✔ Produces unit power for unit head
4. ✘ Produces no power

Question Number : 123 Question Id : 97103630298 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For a 13 m long rail, the number of sleepers to be provided will vary between

Options :

1. ✘ 9 to 12

2. ✘ 13 to 16

3. ✔ 16 to 19

4. ✘ 20 to 23

Question Number : 124 Question Id : 97103630299 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Wetted perimeter of a regime channel for a discharge of 100 cumecs as per Lacey's theory will be

Options :

1. ✔ 47.5 m

2. ✘ 37.5 m

3. ✘ 27.5 m

4. ✘ 17.5 m

Question Number : 125 Question Id : 97103630300 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The maximum permissible eccentricity for no tension at the base width 'B' of a gravity dam is

Options :

1. ✘ $B/2$

2. ✘ $B/3$

3. ✘ $B/4$

4. ✔ $B/6$

Question Number : 126 Question Id : 97103630301 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A hydroelectric scheme operating under a head of 80 m will be classified as

Options :

1. ✘ Low head scheme

2. ✘ Low speed scheme

3. ✔ High head scheme

4. ✘ High speed

Question Number : 127 Question Id : 97103630302 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

As per the IRC recommendations, the coefficient of friction to be preferred between the road surface and vehicle tyre for a speed of vehicle about 50 kmph is

Options :

1. ✔ 0.37

2. ✘ 0.36

3. ✘ 0.35

4. ✘ 0.34

Question Number : 128 Question Id : 97103630303 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a flexible pavement, the minimum thickness of base material should be kept as

Options :

1. ✘ 20 cm

2. ✘ 15 cm

3. ✓ 10 cm

4. ✗ 5 cm

Question Number : 129 Question Id : 97103630304 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

As per the Indian railways, the recommended maximum limit of super elevation on broad gauge is

Options :

1. ✓ 165.1 mm

2. ✗ 101.6 mm

3. ✗ 83.2 mm

4. ✗ 76.2 mm

Question Number : 130 Question Id : 97103630305 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The ratio of contact pressure to the tyre pressure is known as

Options :

1. ✓ Rigidity factor

2. ✘ Flexibility factor
3. ✘ Load factor
4. ✘ Sub-grade modulus

Question Number : 131 Question Id : 97103630306 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In calculating the equivalent radius of resisting section, the parameters used are

Options :

1. ✔ Radius of area of load contact and thickness of slab
2. ✘ Radius of area of load contact and modulus of elasticity
3. ✘ Modulus of elasticity and radius of area of load contact
4. ✘ Modulus of elasticity and thickness of slab

Question Number : 132 Question Id : 97103630307 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a softening point test on bitumen sample, the mass of ball used is

Options :

1. ✘ 2.5 g

2. ✔ 3.5 g

3. ✘ 4.5 g

4. ✘ 5.5 g

Question Number : 133 Question Id : 97103630308 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Roughness index of roads is expressed as

Options :

1. ✘ Size of the stone on the pavement

2. ✘ Number of patches on the pavement

3. ✔ Cumulative deformation of surface per horizontal distance

4. ✘ Type of the road surface

Question Number : 134 Question Id : 97103630309 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

What percentage of bacterial load would be removed from water by the plain sedimentation process?

Options :

1. ✘ 100

2. ✔ 75

3. ✘ 50

4. ✘ 25

Question Number : 135 Question Id : 97103630310 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following methods is most preferable to forecast population of a young and rapidly developing city?

Options :

1. ✔ Geometric increase method

2. ✘ Graphical method

3. ✘ Incremental increase method

4. ✘ Arithmetic increase method

Question Number : 136 Question Id : 97103630311 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For the design of long and narrow pipe system of water distribution, which of the following methods is most preferable?

Options :

1. ✘ Electrical analysis method
2. ✘ Hardy cross method
3. ✔ Equivalent pipe method
4. ✘ Circle method

Question Number : 137 Question Id : 97103630312 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is the correct statement with respect to an “Egg Shaped Sewer”?

Options :

1. ✔ Provides self-cleaning velocity at low discharge
2. ✘ Easy to construct
3. ✘ Economical compared to circular sewer section

4. ✘ More stable than circular sewer section

Question Number : 138 Question Id : 97103630313 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following gasses is composed predominantly in the sludge digestion tank?

Options :

1. ✘ Hydrogen sulphide

2. ✔ Methane

3. ✘ CO₂

4. ✘ Nitrogen

Question Number : 139 Question Id : 97103630314 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

As per the reports of Central Pollution Control Board of India, the generation of solid waste in large cities per capita per day is

Options :

1. ✘ 0.7 kg

2. ✘ 0.6 kg

3. ✓ 0.5 kg

4. ✘ 0.4 kg

Question Number : 140 Question Id : 97103630315 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following particles that cause water to appear cloudy and hazy?

Options :

1. ✓ Total suspended solids

2. ✘ Pollen grains

3. ✘ Hydrilla

4. ✘ Cotton