Which of the variety of coal has highest proportion of carbon?

Options:

4  ✓ Anthracite
Question Number : 2  Question Id : 47163920474  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

Which of the following statements is/are true about solar cell?
   a. Solar cell converts solar energy into electricity.
   b. These are made up of semiconducting materials such as silicon and gallium.
   c. This is conventional source of electricity.

Options :
   2. ✓ Both a and b

---

Question Number : 3  Question Id : 47163920475  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

Major component of biogas is-

Options :
   3. ✓ Methane

---

Question Number : 4  Question Id : 47163920476  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

Options :
   3. ✓ Methane
The energy stored in fossil fuel is-

Options:

1. ✔ Chemical energy

Question Number : 4  Question Id : 47163920476  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

Question Number : 5  Question Id : 47163920477  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

Butane and propane are major constituents of-

Options:

1. ✔ LPG

Question Number : 5  Question Id : 47163920477  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

The heat in solar radiation is due to-

Options:

1. ✔ Infrared radiation

Question Number : 6  Question Id : 47163920478  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

Question Number : 6  Question Id : 47163920478  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33
In a biogas plant, which of the following is not needed at all?

Options:
3. ✔ oxygen

What of the following is /are not true about hydrogen fuel?

a. Hydrogen fuel is a zero emission fuel when burned with oxygen.

b. It is environment friendly.

c. Hydrogen, when consumed in fuel cell, produces only alcohol.

Options:
2. ✔ Only c
మంగళ తేలిన తోడించే హదిది కోసం గాడిలో ఉండవచ్చు?

1) మంగళ తేలిన ప్రతిష్ఠన ప్రాంగణం వాయించి గాడిలో ఉండవచ్చు
2) మంగళ తేలిన వ్యాపారంలో వాయించి గాడిలో ఉండవచ్చు
3) మంగళ తేలిన ప్రతిష్ఠన ప్రాంగణం వాయించి గాడిలో ఉండవచ్చు

Options :
2. ✓ ఈ సమాచారం

Question Number : 10  Question Id : 47163920482  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

Which of the statement is/ are true about mangal turbine?

a. Mangal turbine is unique, ecofriendly, efficient and pollution free turbine pump.
b. It has Indian patent for its uniqueness.
c. Mangal turbine can be used to harness the energy of flowing water to lift water for irrigation purposes.

Options :
4. ✓ All of these

Question Number : 10  Question Id : 47163920482  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

వందరు ఉంటే నిదానంలో కుండా మంగళం / ప్రతిష్ఠన ప్రాంగణం?

1) మంగళంలో ఉందించి ప్రతిష్ఠన ప్రాంగణం, ప్రతిష్ఠన ప్రాంగణం రాష్ట్రం లో ఉందించి మంగళం కొరతలు.
2) మంగళానికి మంగళం వాహనం ఉంటే మంగళానికి వాహనం ఉంది.
3) మంగళానికి అపారాడి వాహనం ఉంటే మంగళానికి వాహనం ఉంది.

Options :
4. ✓ ఈ సమాచారం

Question Number : 11  Question Id : 47163920483  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

The stored form of polysaccharide in plants and animals respectively-

Options :
1. ✓ Starch and glycogen
Question Number : 11 Question Id : 47163920483 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

Question Number : 12 Question Id : 47163920484 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

Question Number : 10 Question Id : 47163920485 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

Options :

1. Green- yellow light

Match the following with the help of suitable codes given below.

A

a. Chemosynthetic autotrophs
b. Parasitic
c. Saprophytic
d. Symbiotic

B

1. euscuta
2. fungi
3. lichen
4. iron, hydrogen and Sulphur bacteria

Options :

1. a-4  b-1  c-2  d-3

Question Number : 13 Question Id : 47163920488 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33
Which of the following statements is/are not true about anaerobic respiration?

a. In yeast, anaerobic respiration takes place.

b. The anaerobic respiration in yeast cells results in alcohol, carbon dioxide and energy.

c. Anaerobic respiration takes place in muscle during any kind of strenuous activity results in the production of glycogen and energy.

Options:

3. ✔️ only c
Question Number: 15  Question Id: 47163920487  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

1. 

Options:

Question Number: 16  Question Id: 47163920488  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

Which of the following statements is/are true about excretion in human beings?

a. Excretion is the removal of nitrogenous waste from the body.

b. The opening of urinary bladder is called urethra.

c. The functional unit of kidney is called glomerulus.

Options:

1. Both a and b

Question Number: 17  Question Id: 47163920489  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

Options:

1. 2, 3 దోషాలు ఉంటాయి.
Match the following using suitable codes.

<table>
<thead>
<tr>
<th>A</th>
<th></th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Auxin</td>
<td></td>
<td>1. promote cell division</td>
</tr>
<tr>
<td>b. Gibberllins</td>
<td></td>
<td>2. wilting of leaves/stomatal closure</td>
</tr>
<tr>
<td>c. Cytokinins</td>
<td></td>
<td>3. responsible for phototropism and geotropism in plants</td>
</tr>
<tr>
<td>d. Abscissic acid</td>
<td></td>
<td>4. help in stem growth</td>
</tr>
</tbody>
</table>

Options:
2. ✓ a-3 b-4 c-1 d-2

Which of the following statements is/are true about hormones?

- a. Hormones are released into and reach the target through blood.
- b. The male gonads secretes oxytocin.
- c. The parathyroid gland secretes paratharmone which regulate calcium metabolism.
- d. Pineal gland secretes the hormone melatonin and it also functions as biological clock.

Options:
1. ✓ a, c and d
1. మ, త మరింత దీశాగా

Question Number : 19  Question Id : 47163920491  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

Match the following with given suitable codes.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Oxytocin</td>
<td>1. fight hormone</td>
</tr>
<tr>
<td>b. Progesterone</td>
<td>2. male hormone</td>
</tr>
<tr>
<td>c. Adrenalin</td>
<td>3. birth hormone</td>
</tr>
<tr>
<td>d. Testosterone</td>
<td>4. pregnancy hormone</td>
</tr>
</tbody>
</table>

Options :

1. ✔ a-3 b-4 c-1 d-2

Question Number : 20  Question Id : 47163920492  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

అనుసారానికి  యొక్క కారణం ఎవరు సౌకర్యం చేయాలి?

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) హింభద్రత లేదా 1. లేదా నిర్మలి</td>
<td></td>
</tr>
<tr>
<td>b) ఇప్పుడు లేదా 2. మాత్రం నిర్మలి</td>
<td></td>
</tr>
<tr>
<td>c) సుబాంతి</td>
<td>3. మాత్రం నిర్మలి</td>
</tr>
<tr>
<td>d) మాట్లాడడాని</td>
<td>4. నిర్మలి లేదా</td>
</tr>
</tbody>
</table>

Options :

1. ✔ a-3 b-4 c-1 d-2

Question Number : 21  Question Id : 47163920493  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

ప్రత్యేకితమ అనుసారానికి నీటి ఎంచిన ఆధారాలు?

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) సుందరం</td>
<td>1. సుందరం లేదా</td>
</tr>
<tr>
<td>b) పుష్పం</td>
<td>2. పుష్పం లేదా</td>
</tr>
<tr>
<td>c) సుందరీ</td>
<td>3. సుందరీ లేదా</td>
</tr>
<tr>
<td>d) పుష్పం లేదా</td>
<td>4. పుష్పం లేదా</td>
</tr>
</tbody>
</table>

Options :

1. ✔ a-3 b-4 c-1 d-2
Which of the statement is/are false about human brain?

a. the human brain is the central organ of the human nervous system.

b. Medulla oblongata is the largest part of brain.

c. cerebellum plays an important role in motor control.

Options:

3. ✓ Only b

Which of the statement is/are true about human heart?

a. Human heart is divided into four chambers.

b. Sinoatrial node is called the heart’s natural pace maker.

c. The normal blood pressure of heart is systolic pressure/diastolic pressure which is 80/120 mm Hg.

Options:

2. ✓ Both a and b
Water and minerals are transported from roots to upper plant parts through-

Options:

2. ✓ Xylem vessels

Question Number : 23 Question Id : 47163920495 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In D.N.A. the pyrimidines are ———— and ————

Options:

3. ✓ Thymine, cytosine

Question Number : 24 Question Id : 47163920496 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

After fertilization, secondary nucleus converts into-

Options:

2. ✓ endosperm
2. ✔ Darwin

Who has given the idea of survival of the fittest?

Options:

3. ✔ Sulphur di oxide

A toxic gas, responsible for the smell of burnt matches, and released naturally by volcanic activity is-

Options:

1. ✔ Sulphur di oxide

The king of chemicals is-

Options:

2. ✔ Sulphuric acid
Question Number : 28  Question Id : 47163920500  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

The element found in free state in nature is-

Options :

3. ✔ gold

Question Number : 29  Question Id : 47163920501  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

Match the following using the suitable code.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Ashwagandha</td>
<td>1. Ricinus communis</td>
</tr>
<tr>
<td>b. Castor</td>
<td>2. Trigonella foenum-graecum</td>
</tr>
<tr>
<td>c. Fenugreek</td>
<td>3. Eclipta prostrate</td>
</tr>
<tr>
<td>d. Bhringraj</td>
<td>4. Withania somnifera</td>
</tr>
</tbody>
</table>

Options :

1. ✔ a-4  b-1  c-2  d-3
Acid rain is caused by the emission of-

Options:
1. Sulfur dioxide and nitrogen oxide

Green lungs are associated with-

Options:
2. Forests
World environment day is celebrated on-

Options:

2  ✓  5 June

Question Number : 32  Question Id : 47163920504  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

మనాశాహ జాతీయ దినోత్సవం నిశ్చిత దిన్ని మాత్రమే?

Options:

2  ✓  5

Question Number : 33  Question Id : 47163920505  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

21 march is celebrated as-

Options:

3  ✓  World forestry day

Question Number : 33  Question Id : 47163920505  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

21 మార్చి ని హరియను మాత్రమే?

Options:

3  ✓  ఆరోగ్య విద్యా దినోత్సవం

Question Number : 34  Question Id : 47163920506  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

Which of the following is secondary pollutant?

Options:

4  ✓  Peroxy acetyl nitrate

Question Number : 34  Question Id : 47163920506  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

ఎంత రకములో ఉంటే సంపూర్ణ రకములో (సంపూర్ణం)

Options:
The biodegradable pollutant among the following is-

Options:

Leather

Commonly known Indian ginseng is-

Options:

Withania somnifera

The micro organism contaminating the Ganga water is-

Options:

Coliform bacteria
The 3 R’s used to save the environment is-

Options:
1. Reduce, recycle, reuse

The increasing concentration of substance, such as a toxic chemical, in the tissue of tolerant organisms at successively higher levels in a food chain-

Options:
2. Bio-magnification

Ozone layer of atmosphere absorbs-
Options:

3. ✅ U. V. rays

Question Number: 40  Question Id: 47163920512  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

What does U. V. rays do?

Options:

3. ✅ Sunburn

Question Number: 41  Question Id: 47163920513  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

Establishment of a forest in an area where there was no previous tree cover is called-

Options:

3. ✅ Afforestation

Question Number: 41  Question Id: 47163920513  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

What is the term used for the establishment of a forest in an area where there was no previous tree cover?

Options:

3. ✅ Afforestation

Question Number: 42  Question Id: 47163920514  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

The highly poisonous alkaloids strychnine and brucine of nux vomica is derived from the plant part-

Options:

2. ✅ Seed

Question Number: 42  Question Id: 47163920514  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

What is the plant part from which the highly poisonous alkaloids strychnine and brucine of nux vomica are derived?

Options:

2. ✅ Seed
“Chipko movement” was basically against-

Options:
3. ✔ Deforestation

Which of the following statements is/are not true about sun?
   a. The sun is the star at the center of the solar system.
   b. The inner most layer of sun’s atmosphere is called core.
   c. The nuclear fission of hydrogen is the source of energy in the sun.

Options:
3. ✔ Only c

Options:
1. Constellation

Question Number: 45  Question Id: 47163920517  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33
Options:

1. మైదన నాయకుడు (తరలు సంఘాదన)

2. Which of the following statements is/are true about geostationary satellite?
   a. Geostationary satellite appears to be stationary at fixed point relative to the earth.
   b. The period of revolution of geostationary satellite is 48 hours.
   c. A geostationary satellite is used for communication purposes, television broadcasting and weather forecasting.
Options:

2. both a and c

3. మసముల సంఘాదనకు సమాధానం కంటే కంటే ఉంటుంది?

Question Number: 46  Question Id: 47163920518  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33
Options:

2. జెఫ్ఫ్రీ బ్రిట్స్‌వింట్ 48 ఘటనలు వేస్తాడు

4. Which of the following pair is not properly matched?
Options:

4. The slowest moving planet of solar system – Mars
4. ✓ Bhaskara

Question Number: 48 Question Id: 47163920520 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0.33

Which of the following is an artificial satellite?

Options:

1. ✓ Bhaskara

Question Number: 49 Question Id: 47163920521 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0.33

At which temperature, Water is most dense?

Options:

2. ✓ 4°C

Question Number: 49 Question Id: 47163920521 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0.33

Which of the following is the kind of liquid (in Hindi) it represents?

Options:

2. ✓ 4°C

Question Number: 50 Question Id: 47163920522 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0.33

Natural gas is a mixture of gases and contains mainly-

Options:

1. ✓ Methane and higher hydrocarbons
Question Number : 50  Question Id : 47163920522  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical Correct Marks : 1  Wrong Marks : 0.33

If sum of five whole numbers is 146, then the minimum value of the largest number of these is:

Options :
1. ✔ 30

Question Number : 51  Question Id : 47163920523  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical Correct Marks : 1  Wrong Marks : 0.33

If $m$ and $n$ are distinct integers, both divisible by 5, then which of the following may not be true?

Options :
3. ✔ $m + n$ is divisible by 10

Question Number : 52  Question Id : 47163920524  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical Correct Marks : 1  Wrong Marks : 0.33

If $m$ and $n$ are distinct integers, both divisible by 5, then which of the following may not be true?

Options :
3. ✔ $m + n$ is divisible by 10
If $\frac{5 + 2\sqrt{3}}{7 + 4\sqrt{3}} = a + b\sqrt{3}$, where $a$, $b$ are integers, then

Options:

2. $\checkmark$ $a = 11, b = -6$

Question Number: 53  Question Id: 47163920525  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

$$\frac{5 + 2\sqrt{3}}{7 + 4\sqrt{3}} = a + b\sqrt{3}, \text{ where } a, b \in \mathbb{Z}$$

Options:

2. $\checkmark$ $a = 11, b = -6$

Question Number: 54  Question Id: 47163920526  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

A rational number between $\sqrt{2}$ and $\sqrt{3}$ is:

Options:

2. $\checkmark$

Question Number: 54  Question Id: 47163920526  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

$$\sqrt{2} \text{ and } \sqrt{3} \text{ have a rational number}$$

Options:

2. $\checkmark$

Question Number: 55  Question Id: 47163920527  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

Value of $(256)^{0.16} \times (256)^{0.09}$ is:

Options:

1. $\checkmark$ 4

Question Number: 55  Question Id: 47163920527  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

$$(256)^{0.16} \times (256)^{0.09}$$

Options:
If \( x = \frac{\sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}} \) and \( y = \frac{\sqrt{3} - \sqrt{2}}{\sqrt{3} + \sqrt{2}} \), then the value of \( x^3 + y^3 \) is:

Options:

3. ✔ 970

A certain sum of money in three years becomes twice on compound interest. In how many years it will be 8 times?

Options:

1. ✔ 9

The least number, which when divided by first five prime numbers leaves the remainder 1, is:

Options:

2. ✔ 2311
Question Number : 58 Question Id : 47163920530 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

On solving the equation \( \log_3 \left( \log_2 (\log_3 t) \right) = 1, \) the value of \( t \) is:

Options :
2. \( \checkmark \) 2311

Question Number : 59 Question Id : 47163920531 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If \( a^2 + b^2 = 7ab \), then the value of \( \log \frac{a+b}{3} - \frac{\log a}{2} - \frac{\log b}{2} \) is:

Options :
1. \( \checkmark \) 0

Question Number : 60 Question Id : 47163920532 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If \( a \neq b \) and \( A \cup B = C \), then \( n(A \cap B) = 0 \) is equal to:

Options :
1. \( \checkmark \) 0

Question Number : 61 Question Id : 47163920533 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If \( A \) and \( B \) are two sets such that \( n(A) = a, n(B) = b, \) and \( n(A \cap B) = 0 \) then \( n(A \cup B) \) is equal to:
Question Number : 61  Question Id : 47163920533  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33  
A = \{a\}, B = \{b\} \text{ and } n(A \cap B) = c \text{ such that } n(A \cup B)\text{ satisfies} \quad \text{?} \quad \text{if}\quad \text{yes}.

Options :

2.  \text{a+b-c}

Question Number : 62  Question Id : 47163920534  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33  
HCF of \(x^2 - y^2, x^3 + y^3\) and \(x^5 + y^5\) is:

Options :

2.  \text{x+y}

Question Number : 62  Question Id : 47163920534  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33  
\(x^2 - y^2, x^3 + y^3\) and \(x^5 + y^5\) be integers.\text{HCF of}\,(HCF) \text{is):

Options :

2.  \text{x+y}

Question Number : 63  Question Id : 47163920535  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33  
LCM of \(x - y, x + y, x^2 + y^2\) and \(x^4 + y^4\) is:

Options :

3.  \text{x^8 - y^8}

Question Number : 63  Question Id : 47163920535  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33  
\(x - y, x + y, x^2 + y^2\) and \(x^4 + y^4\) be integers.\text{LCM of}\,(LCM) \text{is}:

Options :

3.  \text{x^2 - y^8}

Question Number : 64  Question Id : 47163920536  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Given that one of the zeroes of the cubic polynomial \( x^3 + ax^2 + bx + c \) is \(-1\), the product of other two zeroes is:

Options:

1. \( b - a + 1 \)

The area of a rectangular field is 2000 \( m^2 \) and its perimeter is 180 m. Its length and breadth are respectively:

Options:

2. 50m, 40m

Two Squares have sides \( p \) cm and \((p+5)\) cm. The sum of their areas is 625 \( cm^2 \). Their sides are:

Options:

3. 15m, 20m
3.  \(15 \text{ रुपये, 20 रुपये} \)

On simplification \(\frac{1}{1+a^m-a^m-p} + \frac{1}{1+a^n-a^n-p} + \frac{1}{1+a^p-a^p-n} \) is equal to:

Options:

3.  \(1 \)

If the numerator of a fraction is increased by 2 and denominator by 1, it becomes 1.

Again if numerator is decreased by 4 and denominator by 2 it becomes \(\frac{1}{2} \). The fraction is:

Options:

2.  \(\frac{7}{8} \)

The zeros of the polynomial \(x^2 + 99x + 127 \) are:
2. ✓ both negative

Question Number: 69  Question Id: 47163920541  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

\[ x^2+99x+127 \text{ has roots } (\text{zeros}) _____ \\

Options:

2. ✓ 1 and 127

Question Number: 70  Question Id: 47163920542  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

\[ \sin 2A = 2 \sin A \text{ is true when } A \text{ is equal to:} \\

Options:

1. ✓ 0°

Question Number: 70  Question Id: 47163920542  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

\[ A = ______ \text{ since } \sin 2A = 2 \sin A \text{ is true (true)} \\

Options:

1. ✓ 0°

Question Number: 71  Question Id: 47163920543  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

\[ (1+ \tan \theta + \sec \theta) (1+ \cot \theta - \csc \theta) \text{ is equal to:} \\

Options:

3. ✓ 2

Question Number: 71  Question Id: 47163920543  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

\[ (1+ \tan \theta + \sec \theta) (1+ \cot \theta - \csc \theta) = ______ \text{ (true)} \\

Options:

3. ✓ 2

Question Number: 72  Question Id: 47163920544  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0.33

\[ (1+ \tan \theta + \sec \theta) (1+ \cot \theta - \csc \theta) = ______ \text{ (true)} \\

Options:

3. ✓ 2
The number of values of \( \theta \) satisfying the equation \( 2\sin^2\theta + 3\sin\theta + 1 = 0 \) in \([0, 2\pi]\) is

Options:

2. ✓ 3

Question Number: 73  Question Id: 47163920545  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

The value of \( \theta \) when \( 0^\circ \leq \theta \leq 80^\circ \) satisfying the equation \( \frac{\cos\theta}{\csc\theta+1} + \frac{\cos\theta}{\csc\theta-1} = 2 \):

Options:

2. ✓ 45°

Question Number: 74  Question Id: 47163920546  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

If \( \tan(A+B) = \sqrt{3} \) and \( \tan(A-B) = \frac{1}{\sqrt{3}} \), \( 0^\circ < A + B < 90^\circ \), then \( A \) is equal to

Options:

3. ✓ 45°
If \( \sin 3A = \cos (A - 26^\circ) \), where \( 0^\circ < 3A < 90^\circ \), the value of \( A \) is

Options:

2. \( 29^\circ \)

\[ 0^\circ < 3A < 90^\circ \Rightarrow \sin 3A = \cos (A - 26^\circ) \Rightarrow A = 26^\circ \]

Options:

2. \( 29^\circ \)

\[ \frac{1 + \tan^2 A}{1 + \cot^2 A} \]

is equal to:

Options:

4. \( \tan^2 A \)

\[ \frac{1 + \tan^2 A}{1 + \cot^2 A} = \tan^2 A \]

Options:

4. \( \tan^2 A \)

The value of \( \frac{\tan \theta}{1 - \cot \theta} + \frac{\cot \theta}{1 - \tan \theta} - \sec \theta \cosec \theta \) is:

Options:

3. \( 1 \)
\[
\frac{\tan \theta}{1 - \cot \theta} + \frac{\cot \theta}{1 - \tan \theta} - \sec \theta \cosec \theta = \quad \text{is equal to}
\]

Options:
1. \(\tan \theta\)

Question Number : 78  Question Id : 47163920550  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

\[
\frac{\sin \theta - 2 \sin^2 \theta}{2 \cos^2 \theta - \cos \theta}
\]

Options:
1. \(\tan \theta\)

Question Number : 78  Question Id : 47163920550  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

The value of \(\sec \theta \sec (90^\circ - \theta) - \tan \theta - \tan (90^\circ - \theta)\) is

Options:
1. 0

Question Number : 79  Question Id : 47163920551  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

\[
\sec \theta \sec (90^\circ - \theta) - \tan \theta - \tan (90^\circ - \theta)
\]

Options:
1. 0

Question Number : 80  Question Id : 47163920552  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Correct Marks : 1  Wrong Marks : 0.33

If \(\sqrt{3} \tan \theta = 1\), the value of \(\sin^2 \theta - \cos^2 \theta\) is

Options:
1. \(-\frac{1}{2}\)
Question Number : 80  Question Id : 47163920552  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33
\[ \sqrt{3} \tan \theta = 1 \text{ cosec}^2 \theta - \cos^2 \theta \text{ సీసిసీ}^2 \theta - \cos^2 \theta = \frac{1}{2} \text{ అనుసంధానం.} \]
Options :

4  ✅  \[ \frac{1}{2} \]

Question Number : 81  Question Id : 47163920553  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33
The locus of middle points of equal chords of a circle is:
Options :

3  ✅  a smaller circle

Question Number : 81  Question Id : 47163920553  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33
వెంట కంటే (equal chords) మధ్యప మండలలో (middle points) మధ్యప మానం (locus) _________ అనుసంధానం
Options :

3  ✅  మధ్యప మానం (a smaller circle)

Question Number : 82  Question Id : 47163920554  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33
In a triangle ABC, AB=13 cm, BC=84 cm and CA=85 cm. Then the triangle is _________
Options :

3  ✅  right angled

Question Number : 82  Question Id : 47163920554  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33
తెలుగు అంచెల ABC అంచెల AB=13 సేచనం, BC=84 సేచనం. మధ్యపాను CA=85 సేచనం.
తెలుగు అంచెల _________
Options :

3  ✅  తెలుగు అంచెల (right angled)

Question Number : 83  Question Id : 47163920555  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33
In a triangle ABC, AB=AC and BD is perpendicular on AC. Then \( BC^2 = \)
Options :
2. \(2AC.CD\)

Question Number: 83  Question Id: 47163920555  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

\(\text{The given figure } ABC \text{ is a rectangle, } AB = AC \text{ and } AC \perp BC \text{ (perpendicular). } \text{ Hence } BC^2 = \\\n\text{Options:}\)

2. \(2AC.CD\)

Question Number: 84  Question Id: 47163920556  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

The figure formed by angle bisectors of a rectangle is:

Options:

2. \(\text{parallelogram}\)

Question Number: 84  Question Id: 47163920556  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

\(\text{The figure formed by angle bisectors of a rectangle is:}\)

Options:

2. \(\text{parallelogram}\)

Question Number: 85  Question Id: 47163920557  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

From a point in the interior of an equilateral triangle, the perpendicular distances of the sides are \(\sqrt{3}\) cm, \(2\sqrt{3}\) cm, and \(5\sqrt{3}\) cm. The perimeter of the triangle is:

Options:

2. \(48\) cm

Question Number: 85  Question Id: 47163920557  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

From a point in the interior of an equilateral triangle, the perpendicular distances of the sides are \(\sqrt{3}\) cm, \(2\sqrt{3}\) cm, and \(5\sqrt{3}\) cm. The perimeter of the triangle is:

Options:

2. \(48\) cm
In the adjoining figure AB is parallel to DC, area of Δ AOD = 4cm² and area of Δ BCD = 7cm², then the area of Δ CDO is:

Options:
4. ✓ 3cm²

The length of canvas 1.1m wide required to build a conical tent of height 10.5m and the floor area 346.5m² is:

Options:
1. ✓ 315√2m
A solid cylinder with radius of 7cm has total surface area 440cm$^2$ Height of the cylinder is ($\frac{\pi}{7}$):

Options:
1. $3\sqrt{2}$
2. 3cm

The radii of two cylinders are in the ratio 3:4 and their heights are in the ratio 7:8.

The ratio of their volumes is:

Options:
2. 63:128
The ratio of areas of two triangles is 4:3 and the ratio of their heights is 3:4, then the ratio of their bases is:

Options:
2. √ 16:9

Question Number : 90  Question Id : 47163920562  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

\[
\text{base} \propto \sqrt{16:9}
\]

Options:
2. √ 16:9

The surface area of a sphere is \(452\frac{4}{7}\) cm\(^2\). Its volume is \((\pi=\frac{22}{7})\):

Options:
3. √ \(905\frac{1}{7}\) cm\(^3\)

Question Number : 91  Question Id : 47163920563  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

The surface area of a sphere is \(452\frac{4}{7}\) cm\(^2\). Its volume is \((\pi=\frac{22}{7})\):

Options:
3. √ \(905\frac{1}{7}\) cm\(^3\)

Question Number : 91  Question Id : 47163920563  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

A right triangle with sides 3cm and 4cm is made to revolve about its hypotenuse.

The surface area of the double cone, so formed, is \((\pi=\frac{22}{7})\):

Options:
4. √ 52.8 cm\(^2\)

Question Number : 92  Question Id : 47163920564  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0.33

A right triangle with sides 3cm and 4cm is made to revolve about its hypotenuse.

The surface area of the double cone, so formed, is \((\pi=\frac{22}{7})\):

Options:
4. √ 52.8 cm\(^2\)
3. In a right triangle (right triangle) the hypotenuse (hypotenuse) revolves about the base (double cone). The surface ________ is ___________ (π = \frac{22}{7})

Options:

- 52.8 cm

Question Number: 93  Question Id: 47163920565  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

ABCD in a trapezium with parallel sides AB = a cm and DC = b cm. E and F are the midpoints of DA and CB. The ratio of \text{ar}(ABFE) and \text{ar}(EFCD) is:

Options:

- 3a+b:a+3b

Question Number: 93  Question Id: 47163920565  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

\begin{align*}
AB &= a \text{ cm}, \quad DC = b \text{ cm}. \\
\text{AB} \parallel DC \text{ (parallel) implies the trapezium (trapezium)} \text{ is} & \\
\text{DA} \text{ atmid} CB & \text{ and} E \text{ and} F \text{ are midpoints (midpoint)} \text{ of} E \text{ and} F \text{ and} F \text{ and} E \text{.}
\end{align*}

\text{ABFE} \text{ and} EFCD \text{ are equal, the surface is ________ cm}^2 \text{.}

Options:

- 3a+b:a+3b

Question Number: 94  Question Id: 47163920566  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

ABCD is a parallelogram in which BC is produced to E such that CE = BC, AE intersects CD at F. If \text{ar}(\triangle DFB) = 3 \text{ cm}^2, \text{ then}\ \text{ar}(ABCD) is:

Options:

- 12 \text{ cm}^2

Question Number: 94  Question Id: 47163920566  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

ABCD is a parallelogram (parallelogram) \text{ such that} CE = BC \text{ and} E \text{ is the midpoints (intercept) \text{ of} E \text{ and} F \text{.} \\text{AE} \text{ and} CD \text{ at} F \text{ and} F \text{ and} E \text{.} \\text{DFB} \text{ is}\ ________ \text{ cm}^2 \text{.}

Options:

- 12 cm

Question Number: 94  Question Id: 47163920566  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Correct Marks: 1  Wrong Marks: 0.33

ABCD is a parallelogram (parallelogram) \text{ such that} CE = BC \text{ and} E \text{ is the midpoints (intercept) \text{ of} E \text{ and} F \text{.} \\text{AE} \text{ and} CD \text{ at} F \text{ and} F \text{ and} E \text{.} \\text{DFB} \text{ is}\ ________ \text{ cm}^2 \text{.}

Options:

- 12 cm
Area of the circle that can be inscribed in a square of side 6cm is

Options:

4. $9\pi \text{cm}^2$

An isosceles triangle ABC in which AB=AC=6cm is inscribed in a circle of radius 9cm, then the area of the triangle is:

Options:

4. $8\sqrt{2} \text{ cm}^2$

The area of the minor segment of a circle of radius 14cm, when the angle of the corresponding sector is $60^\circ$, is

Options:

2. $49\left(\frac{2}{3}\pi - \sqrt{3}\right) \text{cm}^2$
14. A mason constructs a wall of dimension 270cm X 300cm X 350cm with bricks each of size 22.5cm X 11.25cm X 8.75cm and it is assumed that \( \frac{1}{8} \) space is covered by the mortar. Then the number of bricks used is:

Options:

2. 11200

---

Question Number : 98 Question Id : 47163920570 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

A mason constructs a wall of dimension 270cm X 300cm X 350cm with bricks each of size 22.5cm X 11.25cm X 8.75cm and it is assumed that \( \frac{1}{8} \) space is covered by the mortar. Then the number of bricks used is:

Options:

2. 11200

---

Question Number : 99 Question Id : 47163920571 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

Marbles of diameter 1.4cm are dropped into a cylindrical beaker of diameter 7cm containing some water. The number of marbles, which can raise the water level by 5.6cm, is

Options:

1. 150

---

Question Number : 99 Question Id : 47163920571 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

Marbles of diameter 1.4cm are dropped into a cylindrical beaker of diameter 7cm containing some water. The number of marbles, which can raise the water level by 5.6cm, is

Options:

1. 150
A rocket is in the form of a right circular cylinder closed at the lower end and surmounted by a cone with the same radius as that of cylinder. The diameter and height of the cylinder are 6 cm and 12 cm respectively. If the slant height of the cone is 5 cm, the total surface area is:

Options:

3. $96 \pi \text{cm}^2$