

**FOREST RANGE OFFICERS IN A.P. FOREST SERVICE (GENERAL RECRUITMENT) -
NOTIFICATION NO.10/2018**

MATHEMATICS – 18TH MAR 2020 – S1 – REVISED KEY

Question Number : 20 Question Id : 2310983871

The value of $[1 + x^{(b-a)} + x^{(c-a)} + x^{(d-a)}]^{-1} + [1 + x^{a^{(a-b)}} + x^{(c-b)} + x^{(d-b)}]^{-1} + [1 + x^{(a-c)} + x^{(b-c)} + x^{(d-c)}]^{-1} + [1 + x^{(a-d)} + x^{(b-d)} + x^{(c-d)}]^{-1}$ is:

Answer: Deleted

Question Number : 21 Question Id : 2310983872

$a^2 - 5a + 1 = 0$, the value of $a^2 + 1/a^2$ is:

Answer: Deleted

Question Number : 57 Question Id : 2310983908

The mean of 10 numbers is calculated to be 20. Later it was found that during calculation, 32 was wrongly read as 23. The correct mean is:

Answer: Deleted

Question Number : 60 Question Id : 2310983911

In a π -chart, the angles of the sectors of the circle are 30° , 45° , 60° , 90° , 120° , and 15° . These represent respectively the monthly expenditure in a family in house rent, food, conveyance, education, saving, and entertainment.

According to the above π -chart, the sum of amount spent in food and conveyance is:

Answer: Deleted

Question Number : 61 Question Id : 2310983912

In a π -chart, the angles of the sectors of the circle are 30° , 45° , 60° , 90° , 120° , and 15° . These represent respectively the monthly expenditure in a family in house rent, food, conveyance, education, saving, and entertainment.

According to the above π -chart, what percentage of the amount spent on food is spent in excess on conveyance?

Answer: Deleted

Question Number : 62 Question Id : 2310983913

In a π -chart, the angles of the sectors of the circle are 30° , 45° , 60° , 90° , 120° , and 15° . These represent respectively the monthly expenditure in a family in house rent, food, conveyance, education, saving, and entertainment

The annual miscellaneous expenditure is ₹ 300000 to be spent from the saving. With reference to the above π -chart, if this information is to be shown in the chart with addition of an extra sector in the circle and changing the angle of the sector corresponding to saving, the angle of the sector is:

Answer: Deleted

Question Number : 63 Question Id : 2310983914

Let $P(A)$ denote probability of event A. If $P(A) = 0.7$, $P(B) = 0.8$, and $P(A \& B) = 0.6$, then probability that none of A and B happens is:

Answer: Deleted

Question Number : 68 Question Id : 2310983919

What principal will amount to ₹15,000 at 10% p.a. in 5 years?

Answer: Deleted

Question Number : 92 Question Id : 2310983943

If the sum and product of the roots of the equation $px^2 + 6x - 6 = 0$ are equal, then p is equal to:

Answer: Deleted

Question Number : 106 Question Id : 2310983957

What is the value of $x^2 + y^2 + z^2$, if $x = r \sin(\theta) \cos(\varphi)$, $y = r \sin(\theta) \sin(\varphi)$ and $z = r \cos(\varphi)$?

Answer: Deleted

Question Number : 109 Question Id : 2310983960

A ladder 15 m long just reaches the top of a vertical wall. If the ladder makes an angle of 30° with the wall, then the height of the wall is:

Answer:

$$7.5\sqrt{3} \text{ m}$$

Question Number : 127 Question Id : 2310983978

If the radius of a sphere is 3 cm, then the total curve surface area of each hemisphere is:

Answer:

$$18\pi \text{ cm}^2$$

Question Number : 135 Question Id : 2310983986

The area of the base of a cylinder is $25\pi \text{ m}^2$. What is the diameter of the base of the cylinder?

Answer: Deleted

Question Number : 146 Question Id : 2310983997

What is median of the given classes and frequency data?

Answer: Deleted

Question Number : 147 Question Id : 2310983998

The following table represents frequency distribution. Study the table and answer the question.

| | | | | | |
|-----------|-----|------|-------|-------|-------|
| Class | 0-5 | 6-11 | 12-17 | 18-23 | 24-29 |
| Frequency | 13 | 10 | 15 | 8 | 11 |

The lower limit of median classes is:

Answer:

Deleted

Question Number : 148 Question Id : 2310983999

The following table represents frequency distribution. Study the table and answer the question.

| | | | | | |
|-----------|-----|------|-------|-------|-------|
| Class | 0-5 | 6-11 | 12-17 | 18-23 | 24-29 |
| Frequency | 13 | 10 | 15 | 8 | 11 |

The upper limit of median classes is:

Answer:

17.5