

SSC CGL (Tier - 1) Online Exam Paper - 2016 "held on 1 September 2016" Evening Shift (Quantitative Aptitude)

EXAM DATE : 1-September-2016

EXAM START TIME : 16:15:00

EXAM DURATION : 01:15 Hrs

Question 51. A, B and C can work together for Rs. 550/- A and B together are to do $\frac{7}{11}$ of the work. The share of C should be?

Options:

- 1) Rs. 200
- 2) Rs. 300
- 3) Rs. 400
- 4) Rs. 450

Correct Answer: Rs. 200

Question 52. In ΔABC , the height CD intersects AB at D. The midpoints of AB and BC are P and Q respectively. If AD = 8 cm and CD = 6 cm, then the length of PQ is?

Options:

- 1) 3 cm
- 2) 7 cm
- 3) 9 cm
- 4) 5 cm

Correct Answer: 5 cm

Question 53. The price of a chair is Rs. 500. It has been sold at two successive discounts of 10% each. What is its selling price?

Options:

- 1) Rs. 400
- 2) Rs. 405
- 3) Rs. 415
- 4) Rs. 425

Correct Answer: Rs. 405

Question 54. The percent profit made when an article is sold for Rs. 78 is twice as much as when it is sold for Rs. 69, the cost price of the article is?

Options:

- 1) Rs. 60

- 2) Rs. 51
- 3) Rs. 55.50
- 4) Rs. 70

Correct Answer: Rs. 60

Candidate Answer: Rs. 51

Question 55. In a Village panchayat society 574 names are enlisted as 'below poverty level'. If 14% of the villagers are below poverty level, the total number of villagers is?

Options:

- 1) 4100
- 2) 4200
- 3) 4000
- 4) 3800

Correct Answer: 4100

Question 56. A train 240 meters in length crosses a telegraph post in 16 seconds. The speed of the train is?

Options:

- 1) 50 Km/hr
- 2) 52 Km/hr
- 3) 54 Km/hr
- 4) 56 Km/hr

Correct Answer: 54 Km/hr

Question 57. If $a^2 + 1 = a$, then the value of a^3 is

Options:

- 1) 0
- 2) 1
- 3) -1
- 4) 2

Correct Answer: -1

Question 58.

If $x + 3y = -3x + y$, then $\frac{x^2}{2y^2}$ is equal to

Options:

- 1) $\frac{1}{8}$
- 2) $\frac{1}{2}$

3) $\frac{1}{4}$

4) 4

Correct Answer: $\frac{1}{8}$

Question 59. From an external point two tangents to a circle are drawn. The chord passing through the points of contact subtends an angle 72° at the centre. The angle between the tangents is?

Options:

1) 36°

2) 72°

3) 108°

4) 144°

Correct Answer: 108°

Question 60. Length of three line segments is given. Is construction of a triangle possible with the segments in the given cases?

Options:

1) 8 cm, 7 cm, 18 cm

2) 8 cm, 15 cm, 17 cm

3) 10 cm, 6 cm, 4 cm

4) 8 cm, 10 cm, 20 cm

Correct Answer: 8 cm, 15 cm, 17 cm

Question 61. If $\sin\theta + \operatorname{cosec}\theta = 2$, then the value of $\sin^7\theta + \operatorname{cosec}^7\theta$ is

Options:

1) 2^7

2) 2^{-7}

3) 2

4) 2^{-1}

Correct Answer: 2

Question 62. A man has some hens and some cows. If the total number of heads of hens and cows together is 50 and the number of feet of hens and cows together is 142, then the number of cows is

Options:

1) 21

2) 25

3) 27

4) 29

Correct Answer: 21

Question 63. In a class, average height of all students is 'a' cms. Among them, average height of 10 students is 'b' cms and the average height of the remaining students is 'c' cms. Find the number of students in the class. (Here $a > c$ and $b > c$)

Options:

1)

$$(a(b-c))/(a-c)$$

2)

$$((b-c))/((a-c))$$

3)

$$(b-c)/(10(a-c))$$

4)

$$(10(b-c))/(a-c)$$

Correct Answer:

$$(10(b-c))/(a-c)$$

Question 64.

The simplified value of

$$\frac{3\sqrt{7}}{\sqrt{5} + \sqrt{2}} - \frac{5\sqrt{5}}{\sqrt{2} + \sqrt{7}} + \frac{2\sqrt{2}}{\sqrt{7} + \sqrt{5}} \text{ is}$$

Options:

1) 0

2) 1

3) 5

4) 6

Correct Answer: 0

Question 65. If $(a+b-6)^2 + a^2 + b^2 + 1 + 2b = 2ab + 2a$, then the value of a is

Options:

1) 7

2) 6

3) 3.5

4) 2.5

Correct Answer: 3.5

Question 66.Two circles of radii 17 cm and 8 cm are concentric. The length of a chord of greater circle which touches the smaller circle is

Options:

- 1) 15 cm
- 2) 16 cm
- 3) 30 cm
- 4) 34 cm

Correct Answer: 30 cm

Question 67.The least six digit number which is a perfect square is

Options:

- 1) 100489
- 2) 100000
- 3) 100256
- 4) 100225

Correct Answer: 100489

Question 68.The percentage change of a number when it is first decreased by 10% and then increased by 10% is

Options:

- 1) 0.1 % increase
- 2) 1 % decrease
- 3) 0.1 % decrease
- 4) No changes

Correct Answer: 1 % decrease

Question 69.

Find the angular elevation of the Sun when the shadow of a 15m long pole is $\frac{15}{\sqrt{3}}$ metres

Options:

- 1) 45°
- 2) 60°
- 3) 30°
- 4) 90°

Correct Answer: 60°

Question 70.If $2y \cos\theta = x \sin\theta$ and $2x \sec\theta - y \operatorname{cosec}\theta = 3$ then what is the value of $x^2 + 4y^2$?

Options:

- 1) 4

2) 1

3) 2

4) 5

Correct Answer: 4

Question 71.The difference between compound interest and simple interest on an amount of Rs. 15,000 for 2 years is Rs. 96. The rate of interest per annum is?

Options:

1) 6%

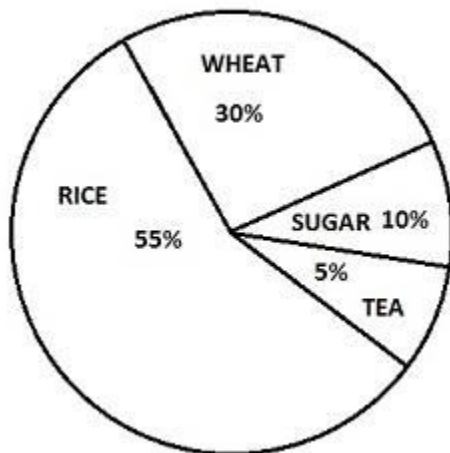
2) 7%

3) 8%

4) 9%

Correct Answer: 8%

Question 72.In the given Pie-chart, the comparative study of the production of Rice, Wheat, Sugar and Tea of a country is given. Study the Pie-Chart and answer the following questions



From this diagram, the ratio of sum of wheat and sugar production to difference in production of rice and tea is

Options:

1) 4:5

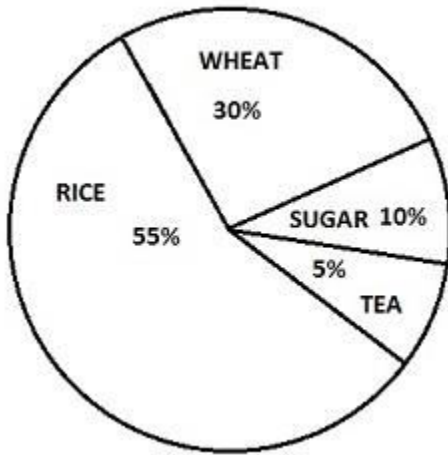
2) 5:4

3) 6:1

4) 1:6

Correct Answer: 4:5

Question 73.In the given Pie-chart, the comparative study of the production of Rice, Wheat, Sugar and Tea of a country is given. Study the Pie-Chart and answer the following questions



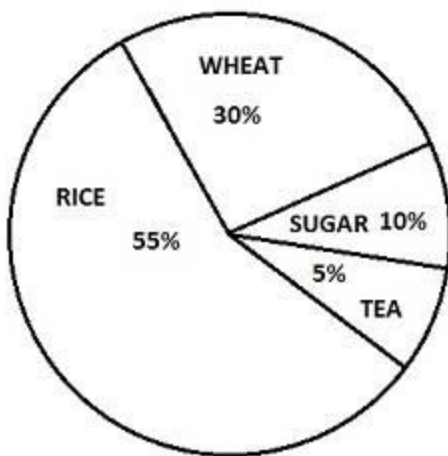
The production of rice and tea is more/greater than production of wheat by-

Options:

- 1) 50%
- 2) 100%
- 3) 75%
- 4) 66.6%

Correct Answer: 100%

Question 74.In the given Pie-chart, the comparative study of the production of Rice, Wheat, Sugar and Tea of a country is given. Study the Pie-Chart and answer the following questions.



The Central angle of Wheat % is

Options:

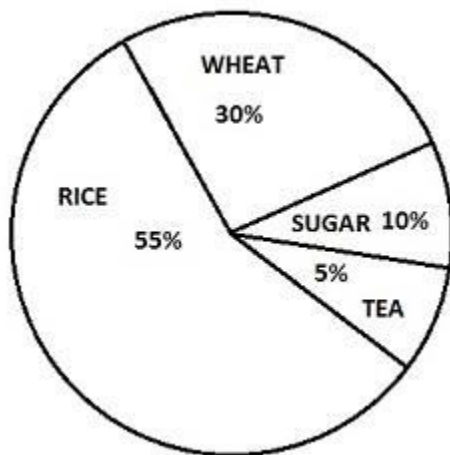
- 1) 48°
- 2) 98°

3) 110°

4) 108°

Correct Answer: 108°

Question 75. In the given Pie-chart, the comparative study of the production of Rice, Wheat, Sugar and Tea of a country is given. Study the Pie-Chart and answer the following questions.



The total production of Rice, Wheat, sugar and Tea (In Kgs) is 500000 Kgs. The production of Rice in the country is

Options:

1) 175000 Kg

2) 395000 kg

3) 275000 Kg

4) 27500 Kg

Correct Answer: 275000 Kg