

SSC CGL (Tier - 1) Online Exam Paper - 2016 "held on 3 September 2016" Evening Shift (Quantitative Aptitude)

EXAM DATE : 3-September-2016

EXAM START TIME : 16:15:00

EXAM NAME : SSC Examination 2016

Question 51.The sum of two positive integers is 80 & difference between them is 20. Then what is difference of squares of those numbers ?

Options:

- 1) 1400
- 2) 1600
- 3) 1800
- 4) 2000

Correct Answer: 1600

Question 52.The difference between the selling prices of an article sold at 4% and 3% profits is 3. The cost price of the article is :

Options:

- 1) 400
- 2) 350
- 3) 300
- 4) 100

Correct Answer: 300

Question 53.In a school there are 1500 students, 44% of them are girls. Monthly fee of each boy is 540 and fee of each girl is 25% less than that of a boy. The sum of fees of boys & girl is

Options:

- 1) 720600
- 2) 720800
- 3) 720900
- 4) 721000

Correct Answer: 720900

Question 54. The time for a train of length 110 metres running at the speed of 72 km/hr to cross a bridge of length 132 metres is

Options:

- 1) 9.8 sec
- 2) 12.1 sec
- 3) 12.42 sec
- 4) 14.3 sec

Correct Answer: 12.1 sec

Question 55.

Simplify the equation

$$\frac{(0.73)^3 + (0.27)^3}{(0.73)^2 + (0.27)^2 - (0.73) \times (0.27)}$$

Options:

- 1) 1
- 2) 0.4087
- 3) 0.73
- 4) 0.27

Correct Answer: 1

Question 56.

If $x + \frac{1}{x} = -2$, then the value of $x^7 + \frac{1}{x^7}$ is

Options:

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

Correct Answer: -2

Question 57.In a circle, two arcs of unequal length subtend angles in the ratio 5:3. If the smaller angle is 45° then the measure of other angle in degrees.

Options:

- 1) 75°
- 2) 72°
- 3) 60°
- 4) 78°

Correct Answer: 75°

Question 58.The orthocentre of an obtuse-angled triangle lies

Options:

- 1) inside the triangle
- 2) outside the triangle
- 3) on one side of a triangle
- 4) none of these

Correct Answer: outside the triangle

Question 59.If $a \cdot \sin 45^\circ \cdot \cos 45^\circ \cdot \tan 60^\circ = \tan 245^\circ - \cos 60^\circ$ then find the value of a ?

Options:

- 1) $\frac{1}{\sqrt{3}}$
- 2) $\sqrt{3}$
- 3) 1

4)

$$\frac{\sqrt{3}}{2}$$

Correct Answer:

$$\frac{1}{\sqrt{3}}$$

Question 60.Ganesh, Ram and Sohan together can complete a work in 16 days. If Ganesh and Ram together can complete the same work in 24 days. The number of days Sohan alone takes, to finish the work is

Options:

- 1) 40
- 2) 48
- 3) 32
- 4) 30

Correct Answer: 48

Question 61.The radius of base of a right circular cone is 6cm and its slant height is 10cm. Then its volume is

(use $\pi = 22/7$)

Options:

- 1) 301.71 cm³
- 2) 310.71 cm³
- 3) 301.17 cm³
- 4) 310.17 cm³

Correct Answer: 301.71 cm³

Question 62.A shop keeper allows 20% discount on the marked price on his articles. Find the marked price of an article for which he charges 740

Options:

- 1) 725
- 2) 875
- 3) 925
- 4) 1040

Correct Answer: 925

Question 63.A truck covers a distance of 550 metres in one minute where as a bus covers a distance of 33 km in $\frac{3}{4}$ hours. Then the ratio of their speeds is

Options:

- 1) 1:3
- 2) 2:3
- 3) 3:4
- 4) 1:4

Correct Answer: 3:4

Question 64.Seven years ago, the average age of A, B and C was 51 years. If A is 3 years older than B and B is 3 years older than C then the present ages of A, B and C are (in year)

Options:

- 1) 61, 58 and 55
- 2) 54, 51, and 48
- 3) 55, 58, and 61
- 4) 48, 51 and 54

Correct Answer: 61, 58 and 55

Question 65.If $a^2 + b^2 + c^2 = 14$ and $a + b + c = 6$, then the value of $(ab + bc + ca)$ is,

Options:

- 1) 11
- 2) 12
- 3) 13
- 4) 14

Correct Answer: 11

Question 66.

If $\frac{a}{b} + \frac{b}{a} = 1$, then the value of $a^3 + b^3$ is

Options:

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

Correct Answer: 0

Question 67. If O is the centre of a circle of radius 5 cm. At a distance of 13 cm from O, a point P is taken. From this point, two tangents PQ and PR are drawn to the circle. Then, the area of quadrilateral PQOR is

Options:

- 1) 60 cm²
- 2) 32.5 cm²
- 3) 65 cm²
- 4) 30 cm²

Correct Answer: 60 cm²

Question 68. A, B and C are three points on a circle with centre O. The tangent at C meets BA produced at T. If $\angle ATC = 30^\circ$ and $\angle ACT = 48^\circ$, then what is the value of $\angle AOB$?

Options:

- 1) 78°
- 2) 96°
- 3) 102°
- 4) 108°

Correct Answer: 108°

Question 69. If $3\sin\theta + 4\cos\theta = 5$ ($0 < \theta < 90^\circ$) then the value of $\sin\theta$ is

Options:

- 1)

1)
 $\frac{1}{5}$

2)
 $\frac{2}{5}$

3)
 $\frac{3}{5}$

4)
 $\frac{4}{5}$

Correct Answer:

$\frac{3}{5}$

Question 70. Two men standing on same side of a pillar 75 metre high, observe the angles of elevation of the top of the pillar to be 30° and 60° respectively the distance between two men is

Options:

1)

$100\sqrt{3}m$

2) 100

3)

$\frac{75}{\sqrt{3}}m$

4)

$25\sqrt{3}m$

Correct Answer:

$100\sqrt{3}m$

Question 71. The difference between compound interest and simple interest on Rs. 5000 for 2 years at 8% per annum payable yearly is

Options:

1) Rs.30

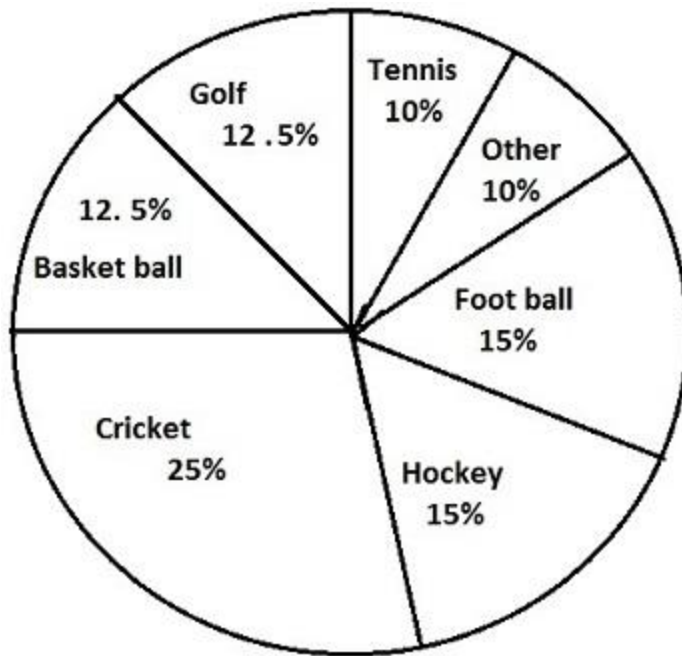
2) Rs.31

3) Rs.33

4) Rs.32

Correct Answer: Rs.32

Question 72.The given pie chart have shows the spendings of a country on various sports during a year. Study the graph and answer the following questions.



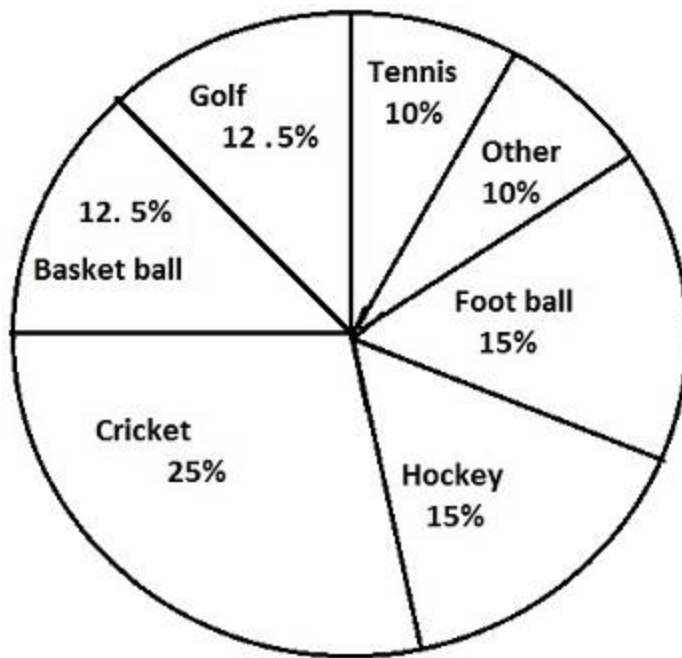
If the total amount spent on sports during the year was ₹ 15,000,000, the amount spent on cricket and hockey together was

Options:

- 1) 6000000
- 2) 5000000
- 3) 3750000
- 4) 7500000

Correct Answer: 6000000

Question 73.The given pie chart have shows the spendings of a country on various sports during a year. Study the graph and answer the following questions.



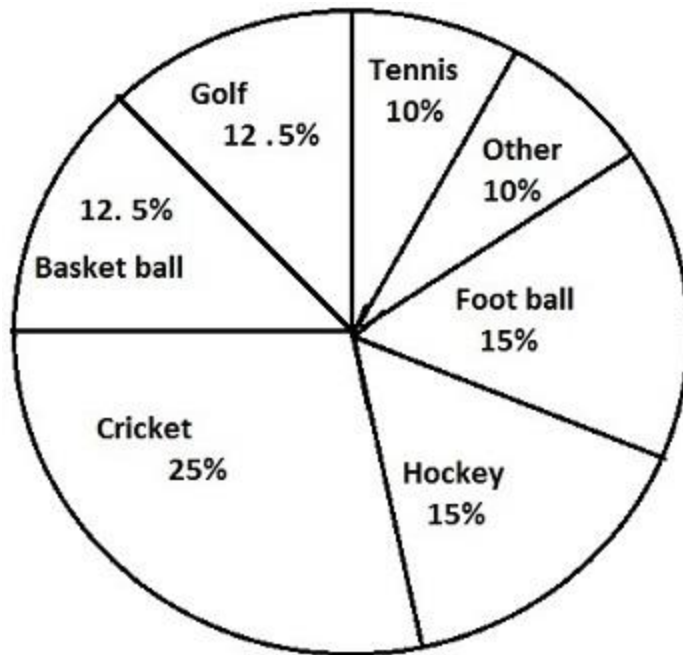
If the total amount spent on sports during the year was ₹ 12,000,000 , how much was spent on basket ball ?

Options:

- 1) 1250000
- 2) 1000000
- 3) 1200000
- 4) 1500000

Correct Answer: 1500000

Question 74.The given pie chart have shows the spendings of a country on various sports during a year. Study the graph and answer the following questions.



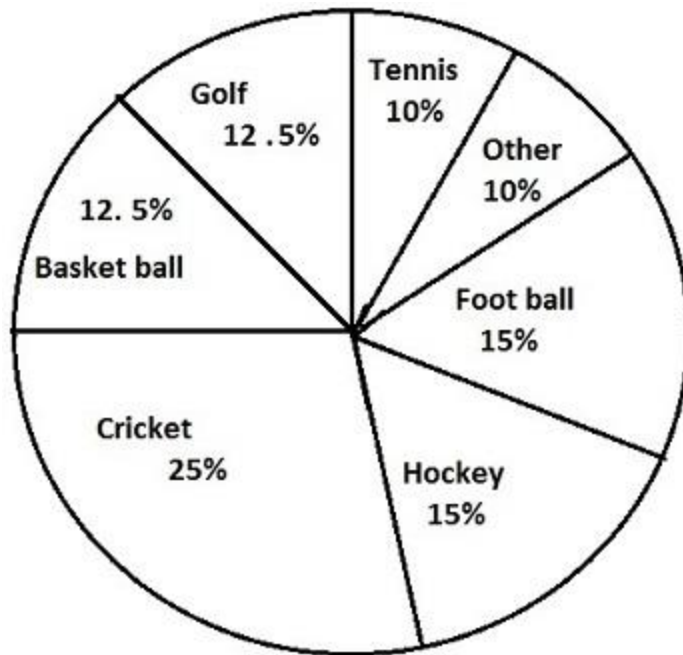
The ratio of the total amount spent on football to that spent on hockey was

Options:

- 1) 1:15
- 2) 1:1
- 3) 15:1
- 4) 3:2

Correct Answer: 1:1

Question 75. The given pie chart has shown the spendings of a country on various sports during a year. Study the graph and answer the following questions.



What is the central angle for the tennis .

Options:

- 1) 36°
- 2) 63°
- 3) 33°
- 4) 66°

Correct Answer: 36°