

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

**EXAM DATE :** 1-September-2016

**EXAM START TIME :** 10:00:00

**EXAM NAME :** SSC Examination 2016

**51. A and B together can finish a work in 30 days. They worked for it for 20 days and then B left the work. The remaining work was done by A alone in 20 days more. In how many days can A alone finish the work?**

- 1) 48 days
- 2) 50 days
- 3) 54 days
- 4) 60 days

**52. The centroid of an equilateral triangle ABC is G. If AB is 6 cms, the length of AG is**

- 1)  $\sqrt{3}$  cm
- 2)  $2\sqrt{3}$  cm
- 3)  $3\sqrt{2}$  cm
- 4)  $2\sqrt{2}$  cm

**53. A merchant changed his trade discount from 25% to 15%. This would increase selling price by**

- 1)  $3\frac{1}{3}\%$
- 2)  $6\frac{1}{6}\%$
- 3)  $13\frac{1}{3}\%$
- 4)  $16\frac{1}{3}\%$

**54. If 177 is divided into 3 parts in the ratio  $\frac{1}{2} : \frac{2}{3} : \frac{4}{5}$ , then the second part is**

- 1) 75
- 2) 45
- 3) 72
- 4) 60

**55. If percentage of profit made, when an article is sold for Rs.78, is twice as when it is sold for Rs.69, the cost price of the article is**

- 1) Rs. 49
- 2) Rs. 51

3) Rs. 57

4) Rs. 60

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**56. The ratio between Ram's age and Rahim's age is 10:11. What is the age of Rahim in percentage of Ram's age**

1.  $109\frac{1}{11}\%$

2. 110%

3.  $111\frac{1}{9}\%$

4. 111%

**Question 57. Gautam travels 160 kms at 32 kmph and returns at 40 kmph. Then average speed is**

1) 72 kmph

2) 71.11 kmph

3) 36 kmph

4) 35.55 kmph

**Question 58. If  $x = \frac{3}{2}$ , then the value of  $27x^3 - 54x^2 + 36x - 11$  is**

1)  $11\frac{3}{8}$

2)  $11\frac{5}{8}$

3)  $12\frac{3}{8}$

4)  $12\frac{5}{8}$

**Question 59. If  $a+b+c = 6$  and  $ab+bc+ca = 1$ , then the value of  $bc(b+c) + ca(c+a) + ab(a+b) + 3abc$  is**

1) 33

2) 66

3) 55

4) 23

**Question 60. If the angles of a triangle are in the ratio of 2:3:4, then the difference of the measure of greatest angle and smallest angle is**

1)  $20^\circ$

2)  $30^\circ$

3)  $40^\circ$

4)  $50^\circ$

**Question 61.** In  $\Delta ABC$ ,  $\angle A = 90^\circ$ ,  $AD \perp BC$  and  $AD = BD = 2$  cm. The length of CD is

1) 3 cm

2) 3.5 cm

3) 3.2 cm

4) 2 cm

**Question 62.**

If  $\tan 45^\circ = \cot \theta$ , then the value of  $\theta$ , in radians is

1)  $\pi$

2)  $\pi/9$

3)  $\pi/2$

4)  $\pi/12$

**Question 63.**  $(2^{51} + 2^{52} + 2^{53} + 2^{54} + 2^{55})$  is divisible by

1) 23

2) 58

3) 124

4) 127

**Question 64.** The average of 12 numbers is 9. If each number is multiplied by 2 and added to 3, the average of the new set of numbers is

1) 9

2) 18

3) 21

4) 27

**Question 65.**

If  $\left(a + \frac{1}{a}\right)^2 = 3$ , then the value of  $a^6 - \frac{1}{a^6}$  will be

1) 1

2) 3

3) 0

4) 2

**Question 66.**

If  $\frac{\sqrt{2+x} + \sqrt{2-x}}{\sqrt{2+x} - \sqrt{2-x}} = 2$ , the value of x is

- 1)  $\frac{4}{5}$
- 2)  $\frac{3}{5}$
- 3)  $\frac{8}{5}$
- 4)  $\frac{1}{5}$

**Question 67.** The perimeter of two similar triangles ABC and PQR are 36 cms and 24 cms respectively. If PQ = 10 cm then the length of AB is

- 1) 18 cm
- 2) 12 cm
- 3) 15 cm
- 4) 30 cm

**Question 68.** In a triangle ABC, AB = 8 cm, AC = 10 cm and  $\angle B = 90^\circ$ , then the area of  $\Delta ABC$  is

- 1) 49 sq.cm
- 2) 36 sq.cm
- 3) 25 sq.cm
- 4) 24 sq.cm

**Question 69.**

ABC is a triangle If  $\sin\left(\frac{A+B}{2}\right) = \frac{\sqrt{3}}{2}$ , then the value of  $\sin\frac{C}{2}$  is

1.  $\frac{1}{\sqrt{2}}$
2. 0
3.  $\frac{1}{2}$
4.  $\frac{\sqrt{3}}{2}$

**Question 70.** The compound interest on Rs. 64,000 for 3 years, compounded annually at 7.5% p.a. is

- 1) Rs. 14,400
- 2) Rs. 15,705
- 3) Rs. 15,507
- 4) Rs. 15,075

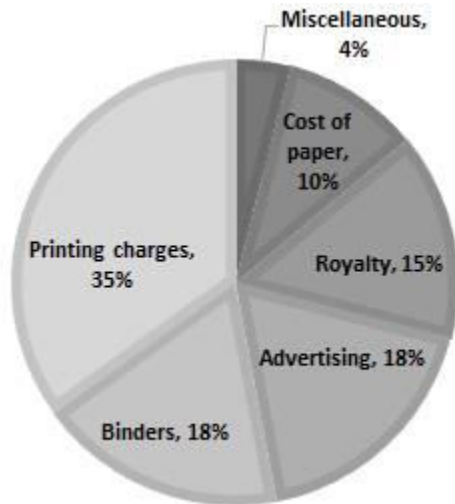
**Question 71.** The angles of elevation of the top of a temple, from the foot and the top of a building 30 m high, are  $60^\circ$  and  $30^\circ$  respectively. Then height of the temple is

- 1) 50 m
- 2) 43 m

3) 40 m

4) 45 m

**Question 72.** Study the pie-chart given and answer the following questions.



If the miscellaneous charges are Rs. 6000, then the advertisement charges are

1) Rs.12000

2) Rs.27000

3) Rs.90000

4) Rs.25000

**Question 73.** The central angle of printing charge is  $x$  more than that of advertisement charge.

Then the value of  $x$  is

1)  $72^\circ$

2)  $61.2^\circ$

3)  $60^\circ$

4)  $54.8^\circ$

**Question 74.** What should be the central angle of the sector 'cost of paper'?

1)  $22.5^\circ$

2)  $54.8^\circ$

3)  $36^\circ$

4)  $16^\circ$

**Question 75.** The ratio between royalty and binder's charges is

1) 5:6

2) 5:8

3) 6:5

4) 8:13

**:: Answers ::**

51. (4) 52. (2) 53. (3) 54. (4) 55. (4) 56. (2) 57. (4) 58. (4) 59. (2) 60. (3) 61. (4) 62. (2) 63. (3) 64. (3)  
65. (3) 66. (3) 67. (3) 68. (4) 69. (3) 70. (3) 71. (4) 72. (2) 73. (2) 74. (3) 75. (1)