# SSC CHSL (Tier - 1) Online Exam Paper - 2016 "held on 07 February 2017" Morning Shift (Mathematics) 

QID : 51- What is the value of $(91+92+93+\ldots \ldots \ldots+140)$ ?
Options:
1)5775
2) 11550
3) 17325
4)23100

Correct Answer:5775
QID : 52- The average revenues of 9 consecutive years of a company is Rs 80 lakhs. If the average of first 5 years is Rs 75 lakhs and that of last 5 years is Rs 87 lakhs, find the revenue for the 5thyear.
Options:
1)Rs 90 lakhs
2) Rs 92 lakhs
3)Rs 88 lakhs
4)Rs 86 lakhs

Correct Answer:Rs 90 lakhs
QID : 53 - If $\operatorname{cosec}-4 \pi / 3=x$, then the value of $x$ is
Options:

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

Correct Answer:2/V3
QID : 54- In an army selection process, the ratio of selected to unselected was 3:1. If 60 less had applied and 30 less selected, the ratio of selected to unselected would have been 5:1.
How many candidates had applied for the process?
Options:
1)240
2)480
3) 120
)720
Correct Answer:240
QID : $55-$ If $\cot (A / 2)=x$, then the value of $x$ is
Options:

1) $\sqrt{ }[(1+\cos A) /(1-\cos A)]$
2) $\operatorname{cosec} A-\cot A$
3) $\sqrt{ }[(1-\cos A) / 2]$
4) $\sqrt{ }[(1+\cos A) / 2]$

Correct Answer: $\sqrt{ }[(1+\cos A) /(1-\cos A)]$
QID : 56- If $(1-\cos A) /(1+\cos A)=x$, then the value of $x$ is
Options:

1) $(\cot A+\operatorname{cosec} A)^{2}$
2) $(\cot A-\operatorname{cosec} A)^{2}$
3) $\cot A-\operatorname{cosec} A$
4) $\cot A+\operatorname{cosec} A$

Correct Answer:(cotA - cosecA)²
QID : 57- Manjeet can do a work in 18 hours. If he is joined by Jaya who is $100 \%$ more efficient, in what time will they together finish the work?
Options:
1)6 hours
2)3 hours
3) 12 hours
4)24 hours

Correct Answer:6 hours
QID : 58- Two cars travel from city A to city B at a speed of 30 and $36 \mathrm{~km} / \mathrm{hr}$ respectively. If one car takes 3 hours lesser time than the other car for the journey, then the distance between City A and City B is
Options:

1) 648 km
2) 810 km .
3) 432 km
4) 540 km

Correct Answer:540 km

# Study Material for Junior Engineer (Civil / Electrical / Mechanical Engineering) Examination Study Kit for SSC CGL EXAM 

QID : 59- A trader had 12 quintals of wheat. He sold a part of it at $13 \%$ profit and the rest at $\mathbf{2 3 \%}$ profit, so that he made a total profit of $17 \%$. How much wheat did he sell at $23 \%$ profit? Options:

1) 720 kg
2) 240 kg
3) 480 kg
4) 960 kg

Correct Answer: 480 kg
QID : 60-A student multiplied a number by $6 / 13$ instead of $13 / 6$. What is the percentage error in the calculation?

Options:

1) 369.44 percent
2) 39.35 percent
3)184.72 percent
4)78.7 percent

Correct Answer:78.7 percent
QID : 61-Simple interest on a certain sum of money for 3 years at $14 \%$ per annum is half the compound interest on Rs. 10000 for 2 years at $10 \%$ per annum. The sum placed on simple interest is
Options:
1)Rs 5000
2)Rs 1250
3)Rs 2000
4)Rs 2500

Correct Answer:Rs 2500
QID : 62- If the shopkeeper sells an item at Rs 1000 which is marked as Rs 1250 , then what is the discount he is offering?
Options:
1)25 percent
2) 33.3 percent
3)250 percent
4)20 percent

## Correct Answer:20 percent

QID : 63- If a cylinder of radius 7 cm and height 9 cm is melted and constructed into a cone of the same radius, what will be the height of this cone?
Options:

1) 54 cm
2) 9 cm
3) 27 cm .
4) 13.5 cm

Correct Answer:27 cm
QID : 64- Points $P$ and $Q$ lie on side $A B$ and $A C$ of triangle $A B C$ respectively such that segment $P Q$ is parallel to side $B C$. If the ratio of $A P: P B$ is $2: 5$, and area of $\triangle A P Q$ is 4 sqcm , what is the area of trapezium PQCB?
Options:

1) 49 sq cm
2) 45 sq cm
3) 25 sq cm
4) 21 sq cm

Correct Answer:45 sq cm
QID : 65- Find equation of the perpendicular bisector of segment joining the points (2,-6) and $(4,0)$ ?
Options:

1) $x+3 y=6$
2) $x+3 y=-6$
3) $x-3 y=-6$
4) $x-3 y=6$

Correct Answer: $x+3 y=-6$
QID : 66- What is the measure of an interior angle of a regular dodecagon?
Options:

1) $120^{\circ}$
2) $140^{\circ}$
3) $150^{\circ}$
4) $144^{\circ}$

Correct Answer:150
QID : 67- The diameter of a circle is 28 cm find its area?
Options:

1) 616 sq cm
2) 308 sq cm
3) 154 sq cm
4) 77 sq cm

Correct Answer:616 sq cm
QID : 68- Coefficient of $x$ in $(x+8)(6-3 x)$ is
Options:
1)18
2) 30
3)-18
4)-30

Correct Answer:-18
QID : 69- If $x+y=10$ and $x^{2}+y^{2}=68$, then find $x y$
Options:
1)21
2) 24
3) 25
4) 16

Correct Answer:16
QID : 70- The sum of the digits of a 2-digit number is 17 . If we add 9 to the number, the new number obtained is a number formed by interchange of the digits. Find the number.
Options:

1) 89
2) 98
3) 78
4)87

Correct Answer:89
QID : 71- If $5 x+4(1-x)>3 x-4>5 x / 3-x / 3$; then $x$ can take which of the following values?
Options:
1)2
2) 1
3)3
4)-2

## Correct Answer:3

QID : 72-

Refer the below data table and answer the following Question.
नीचे दिये गए डेटा तालिका के आधार पर निम्नलिखित प्रश्न का उत्तर दें।

|  | Number of <br> employees <br> कर्मचारियों की संख्या | Annual salary <br> (in lakhs) <br> वार्षिक वेतन <br> (लाखों में) | Bonus as percent <br> of annual salary <br> वार्षिक वेतन के प्रतिशत <br> के रूप में बोनस |
| :--- | :---: | :---: | :---: |
| Manager / प्रबंधक | 3 | 36 | $50 \%$ |
| Executive / कार्यकारी | 4 | 12 | $30 \%$ |
| Trainee / प्रशिक्षू | 3 | 4 | $10 \%$ |

What is the average bonus (in rupees)?
औसत बोनस (रुपये में) कितना है?

## Options:

1)6960000
2) 173333
3)220000
4)696000

Correct Answer:696000
QID : 73-
Refer the below data table and answer the following Question.
नीचे दिये गए डेटा तालिका के आधार पर निम्नलिखित प्रश्न का उत्तर दें।

|  | 2011 | 2012 | 2013 | 2014 | 2015 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Company A / कंपनी A | 2000 | 2000 | 5000 | 2000 | 1000 |
| Company B / कंपनी B | 2000 | 3000 | 1000 | 5000 | 2000 |
| Company C / कंपनी C | 3000 | 2000 | 5000 | 3000 | 3000 |

For which of the following pairs of years the total exports from the three Companies together are equal?
(Note: Figures given are in lakh rupees)
निम्न में से वर्षों की कौन सी जोड़ी के लिए तीनों कंपनियों का कुल निर्यात बराबर है? (नोट: दिए गए आँकड़े लाख रुपए में है)

Options:
1)2011 \& 2013
2)2013 \& 2015
3) $2011 \& 2012$
4)2014 \& 2015

Correct Answer:2011 \& 2012
QID : 74-
Refer the below data table and answer the following Question.
नीचे दिये गए डेटा तालिका के आधार पर निम्नलिखित प्रश्न का उत्तर दें।

| Year <br> वर्ष | Profit or (-Loss) <br> in Rs Crore <br> करोड़ रूपये में <br> लाभ या (-नुकसान) |
| :---: | :---: |
| 2011 | 10 |
| 2012 | 10 |
| 2013 | 25 |
| 2014 | 15 |
| 2015 | 5 |

What was the total Profit or loss of the company in last 5 years?
पिछले पांच वर्षों में कंपनी का कुल लाभ या नुकसान कितना था?

## Options:

1)Loss of Rs 65 crores
2)Profit of Rs 75 crores
3)Profit of Rs 65 crores
4)Loss of Rs 75 crores

Correct Answer:Profit of Rs 65 crores

QID : 75-
Refer the below data table and answer the following Question.
नीचे दिये गए डेटा तालिका के आधार पर निम्नलिखित प्रश्न का उत्तर दें।

| India's exports in 2015 <br> वर्ष 2015 में भारत का निर्यात | Value in million US\$ <br> मिलियन डॉलर में मूल्य |
| :--- | :---: |
| Jewellery / जेवर | 825 |
| Software / सॉफ्टवेयर | 750 |
| Cotton / कपास | 875 |
| Steel / इस्पात | 875 |
| Electronics / इलेक्ट्रानिक्स | 975 |

Jewellery was what percent of total exports?
जेवर का निर्यात भारत के कुल निर्यात का कितना प्रतिशत था?
Options:
1)21.69 percent
2) 19.19 percent
3)24.19 percent
4)16.69 percent

Correct Answer:19.19 percent

