Quant Mega Quiz for SSC CGL Tier - 2

Q1. The area of a rectangular field is 52000 m^2. This rectangular area has been drawn on a map to the scale 1 cm to 100 m. The length is shown as 3.25 cm on the map. The breadth of the rectangular field is :
(a) 210 m
(b) 150 m
(c) 160 m
(d) 123 m

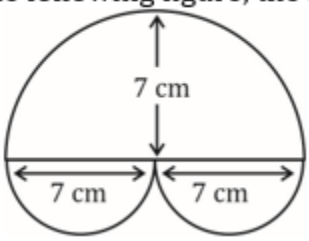
Q2. The base of a triangular field is three times its height. If the cost of cultivating the field at Rs. 36.72 per hectare is Rs. 495.72, find the height and base of the triangular field: (1 hectare = 10000 m^2)
(a) 480 m, 1120 m
(b) 400 m, 1200 m
(c) 300 m, 900 m
(d) 250 m, 650 m

Q3. The inner circumference of a circular path around a circular lawn is 440 m. What is the radius of the outer circumference of the path, if the path is 14 m wide?
(a) 96 m
(b) 84 m
(c) 70 m
(d) 88 m

Q4. The area of a circular field is 124.74 hectares. The cost of fencing it at the rate of 80 paise per metre is :
(a) Rs. 3168
(b) Rs. 1584
(c) Rs. 1729
(d) None of these

Q5. A circle of radius 'a' is divided into 6 equal sectors. An equilateral triangle is drawn on the chord of each sector to lie outside the circle. Area of the resulting figure is :
(a) 6 m
(b) $3\sqrt{3}\,a^2$
(c) $3\left(a^2\sqrt{3}+\pi\right)$
(d) $\frac{3\sqrt{3}\,\pi a^2}{2}$

Q6.
In the following figure, the area in (cm^2) is :



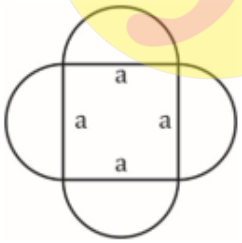
(a) 115.5
(b) 228.5
(c) 154
(d) None of the above

Q7. What is the radius of circular field whose area is equal to the sum of the areas of three smaller circular fields of radii 8 m, 9 m and 12 m respectively?
(a) 17 m
(b) 20 m
(c) 21 m
(d) 29 m

Q8. A rope by which a calf is tied is decreased from 23 m to 12 m. What is the decrease in area to be grazed by it?
(a) 1110 m^2
(b) 1210 m^2
(c) 1120 m^2
(d) 1221 m^2

Q9. Four horses are tethered at four corners of a square plot of 42 m so that they just cannot reach one another. The area left ungrazed is :
(a) 378 m^2
(b) 438 m^2
(c) 786 m^2
(d) None of these

Q10. A figure consists of a square of side 'a' m with semicircles drawn on the outside of the square. The area (in m^2) of the figure so formed will be :



(a) $a^2(\pi + 1)$
(b) $a^2\left(\pi + \frac{1}{4}\right)$
(c) $a^2 + \frac{\pi a^2}{2}$
(d) None of these

Q11. ABC is a triangular field and D, E, F are the mid-points of the sides BC, CA, AB respectively. The ratio of the areas of Δ ABC and Δ DEF is :

(a) 4 : 1
(b) 5 : 1
(c) 3 : 1
(d) can't be determined

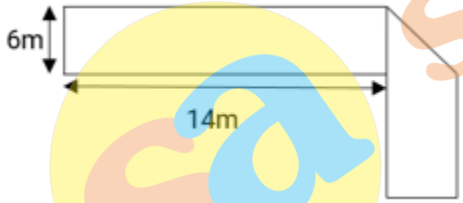
Q12.The length and breadth of a rectangular field are 120 m and 80 m respectively. Inside the field, a park of 12 m width is made around the field. The area of the park is:

(a) 2358 m^2
(b) 7344 m^2
(c) 4224 m^2
(d) 3224 m^2

Q13. The circumference of the front wheel of a cart is 30 ft long and that of the back wheel is 36 ft long. What is the distance travelled by the cart, when the front wheel has done five more revolutions than the rear wheel?

(a) 20 ft
(b) 25 ft
(c) 750 ft
(d) 900 ft

Q14. The figure below has been obtained by folding a rectangle. The total area of the figure (as visible) is 144 square meters. Had the rectangle not been folded, the current overlapping part would have been a square. What would have been the total area of the original unfolded rectangle?

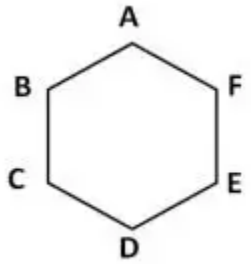


(a) 128 square meters
(b) 154 square meters
(c) 162 square meters
(d) 172 square meters

Q15. A circular road is constructed outside a square field. The perimeter of the square field is 200 ft. If the width of the road is $7\sqrt{2}$ ft. and cost of construction is Rs. 100 per sq. ft. Find the lowest possible cost to construct 50% of the total road.

(a) Rs.70,400
(b) Rs.1,25,400
(c) Rs.1,40,800
(d) Rs.2,35,400

Q16. The hexagon ABCDEF is regular. That means all its sides are of the same length and all its interior angles are of the same size. Each side of the hexagon is 2m. What is the area of the rectangle BCEF?



(a) 4 sq.m
(b) $4\sqrt{3}$ sq.m
(c) 8 sq.m
(d) $4 + 4\sqrt{3}$ sq.m

Q17. If x units are added to the length of the radius of a circle, what is the number of units by which the circumference of the circle is increased?
(a) x
(b) 2
(c) 2π
(d) $2\pi x$

Q18. A contractor undertakes a job of fencing a rectangular field of length 100 m and breadth 50 m. The cost of fencing is Rs. 2 per metre and the labour charges are Re. 1 per metre, both paid directly to the contractor. Find the total cost of fencing if 10 % of the amount paid to the contractor is paid as tax to the land authority.
(a) 900
(b) 990
(c) 950
(d) 810

Q19. Eldeco Housing Pvt. Ltd purchased a circular plot of land for Rs. 158400 at the rate of 1400 per sq. metre. The radius of the plot is :
(a) 5 m
(b) 6 m
(c) 7 m
(d) 14 m

Q20.If the perimeter of a square and a rectangle are the same, then the areas A and B (respectively) enclosed by them would satisfy the inequality:
(a) A>B
(b) A≥B
(c) A<B
(d) A≤B

Q21. The table shows the production of different types of cars (in thousands)

Cars \ Years	2012	2013	2014	2015	2016
A	30	35	48	45	56
B	42	48	40	38	56
C	48	36	38	35	44
D	51	24	30	46	54
E	20	42	40	35	43

if the data related to the production of cars of type E is represented by a pie chat, then the central angle of the sector representing the data of production of cars in 2013 will be

(a) 102°

(b) 84°

(c) 70°

(d) 80°

Q22. The table shows the production of different types of cars (in thousands)

Cars \ Years	2012	2013	2014	2015	2016
A	30	35	48	45	56
B	42	48	40	38	56
C	48	36	38	35	44
D	51	24	30	46	54
E	20	42	40	35	43

What is the ratio of the total production of cars of type A in 2014 and type C in 2013 taken together to the total production of cars of type B in 2016 and type E in 2015 taken together?

(a) 12 : 13

(b) 11 : 12

(c) 10 : 11

(d) 12 : 11

Q23. The table shows the production of different types of cars (in thousands)

Cars \ Years	2012	2013	2014	2015	2016
A	30	35	48	45	56
B	42	48	40	38	56
C	48	36	38	35	44
D	51	24	30	46	54
E	20	42	40	35	43

The total production of type B cars in 2012, 2014 and 2015 taken together is approximately what percent more than the total production of type A cars in 2013 and 2016 taken together?

(a) 31.9

(b) 33.2

(c) 36.3

(d) 34.4

Q24. The table shoes the production of different types of cars (in thousands)

Years / Cars	2012	2013	2014	2015	2016
A	30	35	48	45	56
B	42	48	40	38	56
C	48	36	38	35	44
D	51	24	30	46	54
E	20	42	40	35	43

The numbers of years, in which the production of cars of type B is less than the average production of type D cars over the years is

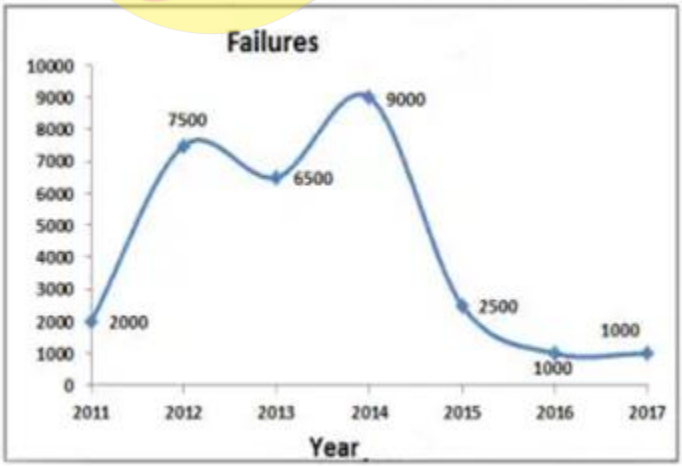
(a) 4
(b) 1
(c) 3
(d) 2

Q25. The line graph shows the number of students of a certain university who failed in the given year in their final exams. Study the diagram and answer the following questions.

Failures in 2014 were greater than that in 2012 by _____.

(a) 25%
(b) 16.6 7%
(c) 20%
(d) 15%

Q26.The line graph shows the number of students of a certain university who failed in the given year in their final exams. Study the diagram and answer the following questions.



What is the average number of failures in the last three years?
(a) 1500
(b) 1250
(c) 1350
(d) 1400

Directions (27-30): The table below shows the number of students of a college studying Arts, Science, Commerce and Business for given 5 years.

Year	Arts	Science	Commerce	Business
2012	48	105	148	32
2013	56	123	136	30
2014	64	125	144	36
2015	78	148	156	36
2016	92	161	168	48

Q27. What is the percentage increase in number of students of Commerce from 2012 to 2016?
(a) 11.16
(b) 17.28
(c) 13.51
(d) 15.67

Q28. What is the simple annual growth rate (in %) of the number of students of Business from 2012 to 2016?
(a) 10
(b) 12.5
(c) 15
(d) 17.5

Q29. What is the ratio of average number of students studying Arts per year and average number of students studying Science per year?
(a) 169 : 331
(b) 66 : 169
(c) 127 : 261
(d) 32 : 75

Q30. Which year shows the maximum percentage increase in the total number of students in these 4 subjects over the previous year?
(a) 2013
(b) 2014
(c) 2015
(d) 2016