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First Practice Set of Quantitative Aptitude
for SSC Combined Graduate Level (Tier 1)

Q. 1 $(256)^{0.16} \times (16)^{0.18} = ?$

- (a) 4
- (b) 64
- (c) 16
- (d) 1.05
- (e) None of these

Q. 2 If $\frac{x}{y} = \frac{4}{3}$, then $\frac{x^2+y^2}{x^2-y^2} = ?$

- (a) $\frac{16}{7}$
- (b) $\frac{17}{7}$
- (c) $\frac{11}{7}$
- (d) $\frac{25}{7}$
- (e) None of these

Q. 3 If $\frac{a}{4} = \frac{b}{12} = \frac{c}{8}$, then $\frac{a+b+c}{c} = ?$

- (a) 3.5
- (b) 1
- (c) 2
- (d) 3
- (e) None of these

Q. 4 $\sqrt[3]{4096} = ?$

- (a) 15
- (b) 12

- (c) 22
- (d) 16
- (e) None of these

Q. 5 By what least number 2744 be multiplied to obtain a number which is a perfect square.

- (a) 5
- (b) 7
- (c) 8
- (d) 14

Q. 6 what is the smallest number by which 4320 be divided to make it a perfect cube?

- (a) 15
- (b) 20
- (c) 24
- (d) 25

Q. 7 The least number which should be added to 2497 so that the sum is exactly divisible by 5, 6, 4 and 3 is:

- (a) 3
- (b) 13
- (c) 23
- (d) 33

Q.8 The average temperature of Gwalior, Agra, and Lucknow is 37°C . The average temperature of Agra, Gwalior and Delhi is 38°C . If the temperature of Delhi is 39°C . Find the ratio of temperatures of Delhi to that of Lucknow?

- (a) 12:11
- (b) 13:12
- (c) 12:13

(d) Can't be determined

Q. 9 The average of the two-digit numbers, which remain the same when the digits interchange their positions is:

- (a) 55
- (b) 55.5
- (c) 56
- (d) 56.5

Q. 10 The value of $(0.7 \times 0.7 \times 0.7 - 0.6 \times 0.6 \times 0.6) \div (0.7 \times 0.7 + 0.6 \times 0.6 + 0.7 \times 0.6)$ is:

- (a) 0.1
- (b) 1
- (c) 1.3
- (d) 1.1

Q. 11 The sum of two numbers is 45 and their product is 500. The G.C.F. of the numbers is

- (a) 5
- (b) 9
- (c) 10
- (d) 15

Q. 12 The value of $\frac{(x+y)}{(x-y)}$ if $\frac{x}{y} = 9$?

- (a) $\frac{6}{5}$
- (b) $\frac{4}{3}$
- (c) $\frac{5}{4}$
- (d) $\frac{2}{3}$

Q. 13 The simplest value of $\left\{ \frac{(\sqrt{5}+2)}{\sqrt{5}-2} + \frac{(\sqrt{5}-2)}{\sqrt{5}+2} \right\}$

- (a) 9
- (b) 1

(c) 14

(d) 18

Q.14. $1201 \times 1201 = ?$

(a) 1442401

(b) 1600000

(c) 1234567

(d) 1587690

Q. 15 The sum of the two numbers is 35 and their product is 250. What is the sum of the reciprocals of these numbers.

(a) $\frac{6}{25}$

(b) $\frac{4}{25}$

(c) $\frac{9}{50}$

(d) $\frac{7}{5}$

Q. 16 The maximum number of girls among them 2923 bags and 3239 eyeliners can be distributed in such a way that each student gets the same number of bags and eyeliners.

(a) 80

(b) 79

(c) 78

(d) 81

Q. 17 Which of the following fractions is less than $\frac{8}{9}$ and greater than $\frac{1}{2}$?

(a) $\frac{7}{8}$

- (b) $\frac{11}{12}$
- (c) $\frac{1}{4}$
- (d) $\frac{9}{10}$

Q. 18 The value of $\frac{4.8 \times 0.54 \times 2.50}{0.9 \times 0.06 \times 0.5}$ is:

- (a) 200
- (b) 240
- (c) 300
- (b) 280

Q. 19. The price of 8 chairs is equal to that of 2 tables. The price of 12 chairs and 2 tables together is 4000. The total price of 10 chairs and 1 table is:

- (a) 2700
- (b) 2800
- (c) 1900
- (d) 2870

Q. 20. If 30% of $(x-y) = 20\%$ of $(x+y)$, then what percent of x is y ?

- (a) 25
- (b) 20
- (c) 30
- (d) 24

Q. 21 8.5 can be expressed in terms of percentage as:

(a) 750

(b) 849

(c) 8.5

(d) 850

Q. 22. A news paper seller had some news papers. He sells 80% news papers and still has 400 news papers. Originally he had:

(a) 2000

(b) 1299

(c) 2200

(d) 3000

Q. 23 A T-shirt marked at Rs 400 is sold for Rs. 360. The rate of Discount is:

(a) 12

(b) 10

(c) 15

(d) 17

Q. 24 88% of 500 is

(a) 444

(b) 442

(c) 440

(d) 410

Q. 25. Two numbers are respectively 30% and 40% more than a third number. The ratio of two numbers is:

(a) 12:17

(b) 13:14

(c) 15:16

(d) 17:19

Q. 26 $(123)^{2.5} - (123)^2 = 123$

- (a) 0.5
- (b) 1
- (c) 2
- (d) 1.5

Q. 27 $4899 \times 999 = ?$

- (a) 4894101
- (b) 4894100
- (c) 4899983
- (d) 4657890

Q. 28 The value of $\sqrt{0.000121}$

- (a) 0.0011
- (b) 0.011
- (c) 0.00011
- (d) 0.11

Q. 29 Average of first five multiples of 5 is:

- (a) 15
- (b) 15.1
- (c) 15.5
- (d) 15.3

Q. 30 The average of 8 numbers is A and the average of four of these is B. If the average of remaining four is C, then

- (a) $2A=B+C$
- (b) $A=B+2C$
- (c) $A=2B+C$

(d) $A=2A+2B$

Q. 31 Ram buys a scooter for Rs 40, 000 and sells at a loss of 20%.What is the selling price of the scooter.

(a) 32,000

(b) 38,000

(c) 32,800

(d) 30,000

Q. 32 By selling 45 oranges for Rs. 40, a man loses 20%.How many should he sell for Rs. 24 to gain 20% in the transaction?

(a) 18

(b) 16

(c) 22

(d) 20

Q. 33 Nitin and Vivek can do a work in 12 days, Vivek and Vikas in 15 days, Vikas and Nitin in 20 days. If Nitin, Vivek and Vikas work together, they will complete the work in :

(a) 5 days

(b) 10 days

(c) $\frac{47}{5}$ days

(d) 15 days

Q. 34 In a metro the ratio of the no of male and female is 8:5.If there are 160 female, the total no of passengers in a metro is:

(a) 416

(b) 260

(c) 250

(d) 100

Q. 35 Ram , Shyam and Mohan hired a taxi for Rs. 850 and used it for 5, 9 and 11 hours respectively. Hired charges paid by Mohan is:

- (a) 374
- (b) 375
- (c) 280
- (d) 290

Q. 36 42 men complete a piece of work in 12 days. In how many days will 21 men complete the same work?

- (a) 24
- (b) 22
- (c) 20
- (d) 19

Q.37 Aashu and vasu can do a work in 10 days, vasu and ganesh can do the same work in 15 days, Ganesh and Aashu in 20 days.If Aashu, Vasu and Ganesh work together, they will complete the work in:

- (a) $\frac{13}{120}$
- (b) $\frac{110}{13}$
- (c) $\frac{120}{13}$
- (d) 120

Q. 38 Akash is walking at a rate of 4 km/hr crosses a bridge in 24 minutes. The length of the bridge (in meters) is:

- (a) 1606
- (b) 1600
- (c) 1680
- (d) 1499

Q. 39 In what time will a train 150 m long cross a tower, if its speed be 180 km/hr:

- (a) 3.5
- (b) 3
- (c) 4
- (d) 4.5

Q. 40 How long time (in seconds) will a 450 meter long train take to cross a girl walking with a speed of 5 km/hr in the direction of the moving train. The speed of the train is 65km/hr ?

- (a) 27
- (b) 28
- (c) 30
- (d) 29

Q. 41 If the length of the rectangular room is 15 m more than its breath. The area of the room is 1000 m² ,then the length of the room is:

- (a) 40
- (b) 40.5
- (c) 41
- (d) None of these.

Q.42 The maximum length of a pen that can be kept in a rectangular box having the dimensions 6 m × 4m × 2 m

- (a) 14.5
- (b) 12
- (c) $2\sqrt{15}$
- (d) $2\sqrt{14}$

Q. 43 A hollow spherical silver ball has an external diameter 4 cm and 3 cm thick. Then the volume of the silver used in the ball is:

- (a) 264
- (b) 264.5
- (c) 264.6
- (d) 265

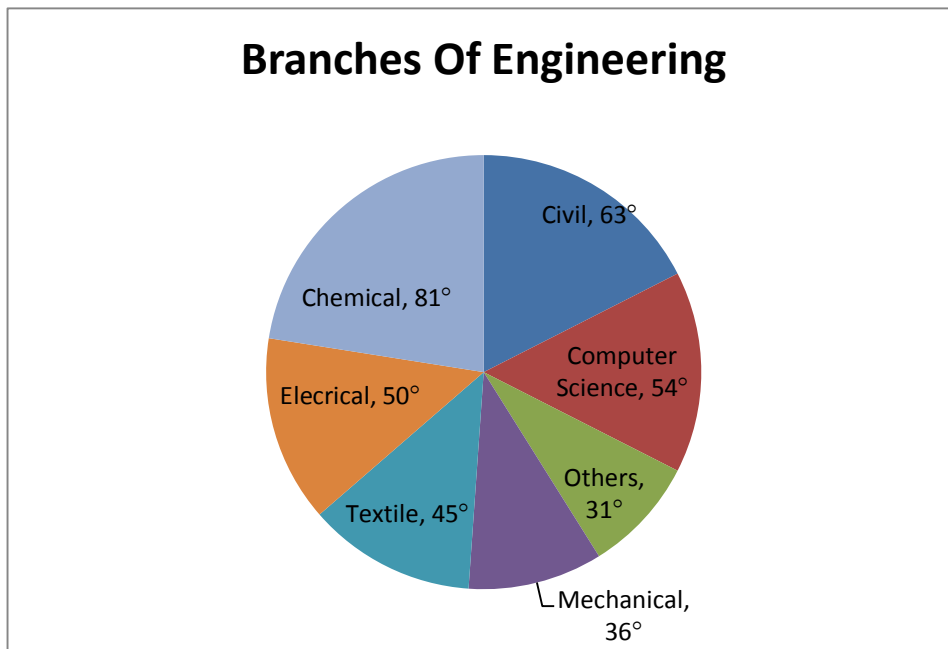
Q. 44 If the height of a tower is $5\sqrt{3}$ meters and the length of its shadow is 5 meters, then the angle of elevation of the sun is:

- (a) 62°
- (b) 60.5°
- (c) 60°
- (d) 45°

Q. 45 The angle of elevation of the top of a building from a certain point is 30° . If a person who is observing, moves 20 m towards the building. Now the angle of elevation of the top of the building increases by 15° . The height of the tower is:

- (a) 30 m
- (b) 27.3
- (c) 27.4
- (d) 27

Directions (Q 46-50) : The following pie chart shows the spending of an Engineering Institute on various branches during a particular year. Study the pie chart carefully and answers the questions given below



Q. 46. What percent of the total Spending is spent on Textile Engineering?

- (a) 25%
- (b) 45%
- (c) 12.5%
- (d) 23.5%

Q. 47 How much percent less is spent on Computer Science than that on Chemical ?

- (a) 27 %
- (b) $33\frac{1}{3}$ %
- (c) $37\frac{1}{2}$ %
- (d) $22\frac{2}{9}$ %

Q. 48 How much percent more is spent on Civil than that on Mechanical branch ?

- (a) 75%
- (b) 37.5%
- (c) 27%
- (d) 35%

Q. 49 If the total amount spent on different branches of engineering during the year was 4 crores, the amount spent on Chemical and Civil together was:

- (a) 1.5 Crores
- (b) 1.6 Crores
- (c) 1.8 Crores
- (d) 1.9 Crores

Q. 50 If the total amount spent on Different branches during the year was 3,60,00,000, the amount spent on Electrical branch exceeds that on Textile engineering Branch by :

- (a) 4,95,800
- (b) 4,90,000
- (c) 5,00,000
- (d) 5,19,800

Answers

1 (a) 2 (d) 3 (d) 4 (d) 5 (d) 6 (b) 7 (c) 8 (b) 9 (a) 10 (a) 11 (a) 12 (c) 13 (d) 14 (a) 15 (d) 16 (b)
17 (a) 18. (b) 19 (b) 20 (b) 21 (d) 22 (a) 23 (b) 24 (c) 25 (b) 26 (d) 27 (a) 28 (b) 29 (a) 30 (a)
31 (a) 32 (a) 33 (b) 34 (a) 35 (a) 36 (a) 37 (c) 38 (b) 39 (b) 40 (a) 41 (a) 42 (d) 43 (a) 44 (c)
45 (b) 46 (c) 47 (b) 48 (a) 49 (b) 50 (c)