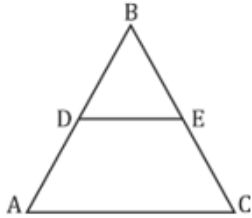


Quant Mega Quiz for SSC Tier-1 (Solutions)

S1. Ans.(a)

Sol.



$$\frac{BC}{BE} = \frac{AB}{BD}$$

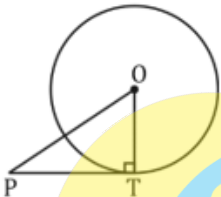
$$= \frac{5}{2}$$

$$\frac{EC}{BE} = \frac{3}{2}$$

$$\frac{BE}{EC} = \frac{2}{3}$$

S2. Ans.(a)

Sol.

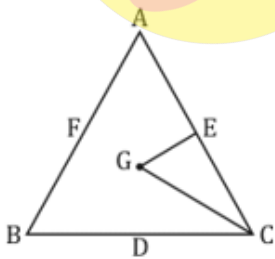


$$PT = 8 \text{ cm}, OT = 6 \text{ cm}$$

$$OP = \sqrt{64 + 36} = 10$$

S3. Ans.(b)

Sol.



$$\text{Area } \Delta CGE$$

$$= \frac{1}{6} \Delta ABC$$

$$= \frac{1}{6} \times 36$$

$$= 6 \text{ cm}^2$$

sscadda.com

6 Months Subscription

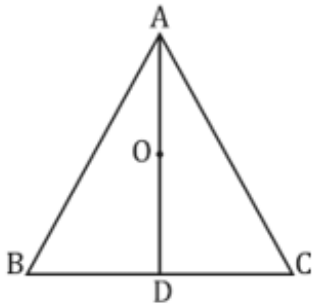
SSC CGL
TIER-II MAHA PACK

Test Series, Live Classes,
Video Course, Ebooks

Bilingual (With e-Books)

S4. Ans.(a)

Sol.



$$AO : OD \Rightarrow 2 : 1$$

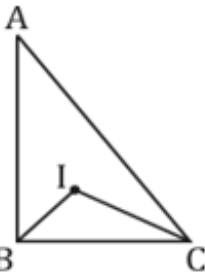
$$2r \rightarrow 10$$

$$1r \rightarrow 5 \text{ cm}$$

$$OD = 5 \text{ cm}$$

S5. Ans.(b)

Sol.



$$\angle A = 180 - (90 + 70)$$

$$= 180 - 160$$

$$= 20^\circ$$

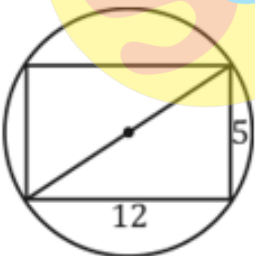
$$\angle BIC = 90 + \frac{20}{2}$$

$$= 90 + 10$$

$$= 100^\circ$$

S6. Ans.(b)

Sol.



$$\text{Diagonal} = \sqrt{144 + 25}$$

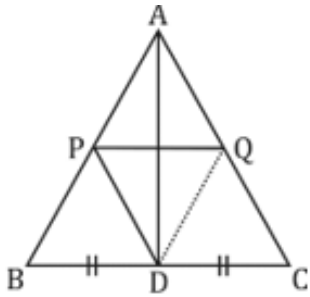
$$= \sqrt{169}$$

$$= 13$$

$$\text{Radius} = \frac{13}{2} = 6.5 \text{ cm}$$

S7. Ans.(b)

Sol.



$AD \perp BC$

$$\angle ADC = 90^\circ$$

$$\angle ADQ = \frac{90}{2} = 45^\circ$$

$$\angle ADP = \frac{90}{2} = 45^\circ$$

$$\angle PDQ = 45^\circ + 45^\circ = 90^\circ$$

S8. Ans.(c)

Sol.

Initial $\rightarrow 2 : 3 : 5$

New $\rightarrow 4 : 5 : 7$

$(4 - 2)$ or $(5 - 3)$ or $(7 - 5)$

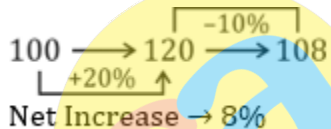
2 ratio $\Rightarrow 40$

1 ratio $\rightarrow 20$

Initial no. of students = 10×20
 $= 200$

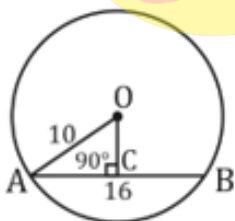
S9. Ans.(c)

Sol.



S10. Ans.(b)

Sol.



$$AC = 16/2 = 8$$

$$10^2 = 8^2 + OC^2$$

$$100 = 64 + OC^2$$

$$OC^2 = 36$$

$$OC = 6 \text{ cm}$$

ENGLISH
BY
NEETU SINGH
12th May
Tue, Thr, Sat 5 pm - 7 pm

S11. Ans.(d)

Sol.

Initial $\rightarrow 100 \times 100 \rightarrow$ Rs. 10000

New $\rightarrow 125 \times 75 =$ Rs. 9375

$$\begin{aligned}\% \text{ change} &= \frac{625}{10000} \times 100 \\ &= \frac{25}{4} \%\end{aligned}$$

S12. Ans.(d)

Sol.

Let price be 100

$$\text{Increase} \Rightarrow \frac{100 \times (100 + r)}{100}$$

$$\Rightarrow 100 + r$$

$$\text{Decrease} \Rightarrow \frac{(100 + r)(100 - r)}{100}$$

$$\Rightarrow \frac{10000 - r^2}{100}$$

$$\left(\frac{10000 - r^2}{100} \right) r \rightarrow \text{Rs. } 1$$

$$1r \rightarrow \text{Rs. } \frac{100}{10000 - r^2}$$

$$100r \rightarrow \text{Rs. } \frac{10000}{10000 - r^2}$$

S13. Ans.(d)

Sol.

$$\text{Price} \rightarrow 100 : 125$$

$$4 : 5$$

$$\text{Consumption} \rightarrow 5 : 4$$

$$\% \text{ decrease} = \frac{1}{5} \times 100$$

$$= 20\%$$

S14. Ans.(b)

Sol.

Let number be 100

1st decrease = 90

2nd increase = 99

1 ratio $\rightarrow 50$

100 ratio $\rightarrow 5000$

S15. Ans.(c)

Sol.

Price → 100 : 90
10 : 9

Consumption → 9 : 10

1 ratio → 6.2 kg

10 ratio → 62 kg

Reduced price of sugar = $\frac{837}{62} = 13.5 \text{ Rs./kg}$

S16. Ans.(c)

Sol.

Price → 100 : 120
5 : 6

Consumption → 6 : 5

Original consumption → 6x

Reduction → 1x

Required ratio → 1 : 6

S17. Ans.(b)

Sol.

Let original price → 100 Rs.

Consumption → 100 kg

Reduced price → 80

Increased consumption → 120

Original Bill = Rs. 10000

New Bill = Rs. 9600

% decrease = $\frac{400}{10000} \times 100$

= 4%

S18. Ans.(c)

Sol.

Let no. → 100

1st Increase → 110

2nd Increase = 132

Net Change → 32%

S19. Ans.(c)

Sol.

l → 100, b → 100

Area = 10000

l → 110, b → 90

Area = 9900

% decrease = $\frac{100}{10000} \times 100$

= 1%

SSCadda.com

TEST SERIES

Bilingual



SSC CGL 2019-20
PRIME

400+ TOTAL TESTS

Validity : 12 Months

S20. Ans.(b)

Sol.

$$A \rightarrow 100, B \rightarrow 80$$

$$\% \text{ More} \rightarrow \frac{20}{80} \times 100$$

$$\Rightarrow 25\%$$

S21. Ans.(a)

Sol.

$$\text{C.P of New Buyer} = 840 \times \frac{11}{10}$$

$$= 924 \text{ Rs.}$$

$$\text{Final S.P} = 924 \times \frac{19}{20}$$

$$= 877.80 \text{ Rs.}$$

S22. Ans.(c)

Sol.

Let C.P be 100

$$\text{C.P} \rightarrow 100$$

$$\text{S.P} \rightarrow 90$$

$$\frac{2}{3} \text{M.P} = \text{S.P}$$

$$\frac{2}{3} \text{M.P} = 90$$

$$\text{M.P} = 135$$

If Article is sold at M.P, profit % = 35%

S23. Ans.(b)

Sol.

Let C.P \rightarrow 100

$$\text{C.P} \rightarrow 100$$

Sale price \rightarrow 115

$$\text{Final sale price} \Rightarrow 115 \times \frac{88}{100}$$

$$\Rightarrow 101.2$$

$$\text{Profit \%} = 1.2\%$$

$$= \frac{12}{10}\%$$

$$= 1\frac{1}{5}\%$$

S24. Ans.(c)

Sol.

Average speed

$$= \frac{400}{\frac{200}{40} + \frac{200}{20}}$$

$$= \frac{400}{5 + 10}$$

$$= \frac{400}{15}$$

$$= 26.67 \text{ km/hr}$$

S25. Ans.(b)

Sol.

C.P of All Book = 360 Rs.

S.P of 40 Books = 160 Rs.

S.P of 60 Books = 300 Rs.

S.P of 20 Books = 60 Rs.

Total S.P = 520 Rs.

$$\begin{aligned}\text{Profit \%} &= \frac{160}{360} \times 100 \\ &= \frac{400}{9} = 44\frac{4}{9}\%\end{aligned}$$

S26. Ans.(a)

Sol.

Let length of train be x

$$2x = (46 - 36) \times \frac{5}{18} \times 36$$

$$2x = 10 \times 10$$

$$x = 50 \text{ m}$$

S27. Ans.(d)

Sol.

Speed of 1st train

$$= \frac{180}{4} = 45 \text{ km/hr}$$

Speed of 2nd train

$$= \frac{180}{3} = 60 \text{ km/hr}$$

Difference is distance

$$= 60 - 45$$

$$= 15 \text{ km}$$

S28. Ans.(a)

Sol.

Total distance

$$= 2000 + 500 = 2500 \text{ m}$$

Relative speed = 50 m/s

$$\text{Time} = \frac{2500}{50}$$

$$= 50 \text{ sec.}$$

S29. Ans.(d)

Sol.

Let C.P be 150 Rs.

C.P of Raghavan

$$= \frac{13}{15} \times 150$$

= 130 Rs.

$$\text{S.P of Raghavan} \Rightarrow 150 \times \frac{112}{100}$$

$\Rightarrow 168$

$$\text{Profit \%} = \frac{38}{130} \times 100$$

$$= \frac{380}{13}$$

$$= 29\frac{3}{13}$$

S30. Ans.(c)

Sol.

$$20 = M - 10 - \frac{M}{10}$$

$$30 = \frac{9M}{10}$$

$$M = 33\frac{1}{3}\%$$

Complete Preparation for
SSC Exams

SSC
EXTREME

Video Courses, Test Series,
eBooks



sscadda.com