

## Solutions for Railways ALP CBT

### 2: Test 4

1 - C

Explanation: Union Ministry of Home Affairs has recently declared Kerala Flood as "Calamity of Severe Nature". When a calamity is declared to be of 'rare severe/ 'severe nature' support to the state government is provided at the national level. The Centre also considers additional assistance from the National Disaster Response Fund (NDRF).

2 - B

Explanation:  $225 \div 5 + 64 - 13 \times 6 = ?$

$$225 \div 5 + 64 - 13 \times 6 = ?$$

$$45 + 64 - 78 = ?$$

$$? = 109 - 78 = 31$$

3 - D

Explanation: Given, speed =  $132 \text{ km/hr} = 126 \times \left(\frac{5}{18}\right) \text{ m/sec}$

Speed =  $35 \text{ m/sec}$

Time =  $2 \text{ minutes } 24 \text{ seconds} = (60 \times 2 + 12) \text{ seconds}$

Time =  $132 \text{ sec}$

Now, Circumference of the circle (Distance) = Speed  $\times$  time

$$2 \times \pi \times r = 35 \times 132$$

$$44 \times r = 35 \times 132 \times 7$$

$$r = 735 \text{ m}$$

Area of the circular field =  $\pi \times r^2$

$$= \frac{22}{7} \times 735 \times 735$$

$$= 1697850 \text{ m}^2$$

Thus, Area of the circular field =  $1697850 \text{ m}^2$

4 - A

Explanation: Let the original fraction be  $\frac{x}{y}$ .

Numerator increased by 200% means, it is tripled.

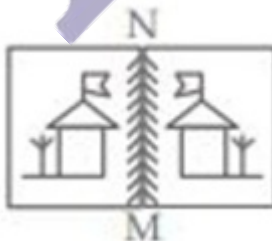
Denominator increase by 100% means, it is doubled.

$$\text{New Fraction} = \frac{3x}{2y} = \frac{30}{17}$$

$$\frac{x}{y} = \frac{30 \times 2}{17 \times 3}$$

$$\frac{x}{y} = \frac{20}{17}$$

5 - C



Explanation:

6 - D

Explanation: Total age of 11 students and their teachers =  $12 \times 16 = 192 \text{ years}$

Total age of First 7 students =  $14 \times 7 = 98$

Total age of 4 students =  $10 \times 4 = 40$

Total age of 11 students =  $98 + 40 = 138 \text{ years}$

Age of their teacher =  $192 - 138 = 54 \text{ years}$

7 - C

W	A	R	M	O	T	E
↓	↓	↓	↓	↓	↓	↓
E	R	X	S	T	W	A

Explanation:

8 - B

Explanation: Right-wing former Senator Mario Abdo Benítez has recently sworn in as the new president of Paraguay after defeating his liberal rival Horacio Cartes. Both are from the conservative Colorado Party. Mr Abdo Benítez is the son of a close aide to ex-military dictator Alfredo Stroessner, and has faced criticism for defending the former leader's record.

9 - D

Explanation: Both the statements are implicit in the given statement. The government of India has decided to start a track II dialogue with an assumption that it will be able to make the people participating agree to what the Government of India is saying. Also, the people participating will be able to persuade their respective governments.

10 - D

Explanation: Total mixture =  $4.8 + 11.2 = 16 \text{ liters}$

Percentage of pure ghee in the mixture

$$= \frac{4.8}{16} \times 100 = 30\%$$

11 - D

Explanation: Neither of the arguments is strong. Scheme of voluntary retirement will not help keep a check on inefficient and excess staff. Also, if private and multinational companies are doing it, this does not mean that public sector should also follow the same.

12 - C

Explanation: While drawing projections in the 1st stage the front view and top view will be either line or circle and in 2nd stage the front and top view will be line and ellipse and in 3rd stage the front and top view will ellipse both.

13 - B

Explanation: Marked Price (M.P.) = Rs. 1400

Discount = 9% of MP

$$= \frac{9}{100} \times 1400$$

$$= \text{Rs. } 126$$

selling price (SP) = Marked price - Discount

$$= 1400 - 126$$

$$= 1274$$

Therefore, Selling price = Rs. 1274

**14 - B**

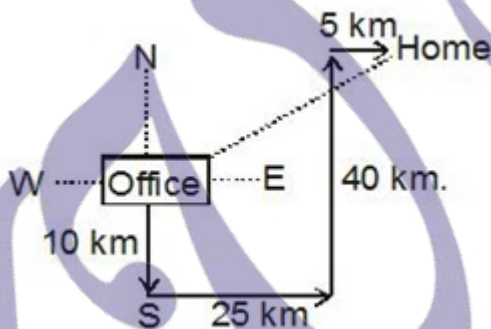
Explanation: In a second class lever, the fulcrum is on one end of the lever, the effort is on the other end, and the load is between the fulcrum and the effort. Examples of second class levers are bottle openers, nut crackers, the cutting arm on a paper cutter, and a wheelbarrow.

**15 - C**

$$\begin{aligned} \text{Explanation: } &= \frac{\sin\theta - 2\sin^3\theta}{2\cos^3\theta - \cos\theta} \\ &= \frac{\sin\theta(1 - 2\sin^2\theta)}{\cos\theta(2\cos^2\theta - 1)} \\ &= \frac{\sin\theta}{\cos\theta} \times \frac{\cos 2\theta}{\cos 2\theta} \\ &= \tan\theta \end{aligned}$$

**16 - B**

Explanation: Only O I N T M E N T can be formed.  
 POINTER.....letter R is missing.  
 TENEMENT.....given word has just one E while we need 3 E.  
 POSITION.....given word has just one O while we need 2 O.

**17 - C****18 - B**

Explanation:

**19 - A**

Explanation: Andhra Pradesh government has roll-out a new scheme named "Mukhyamantri Yuva Nestham" yojana i.e. an Unemployment Pension Scheme. Under this welfare scheme, all the unemployed youths in the state will get Rs. 1000 p.m.

**20 - C**

Explanation: I-Hub (Intelligent Hub) is first-of-its-kind global research centre for scientific learning set up in Andhra Pradesh. It is established in the state as the State Government signed an MOU with UNESCO and Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP).

**21 - B**

Explanation: Only argument II is strong. If we cannot succeed without the knowledge of computers, then it is imperative for us to make computer knowledge compulsory. Argument I is weak since we do not know why western model should not be followed.

**22 - B**

Explanation: So let two numbers be  $33x$  and  $33y$ .  
 $33x \times 33y = 3267$   
 $xy = 3$   
 3 is the product of (1 and 3)  
 $x = 1$  and  $y = 3$   
 $33x = 33 \times 1 = 33$   
 $33y = 33 \times 3 = 99$   
 Greater number = 99

**23 - B**

Explanation: The Expression-  
 $(16 - 4) \times 6 \div 2 + 8 = 30$   
 $(16 \div 4) \times 6 - 2 + 8 = 30$   
 $4 \times 6 - 2 + 8 = 30$   
 $24 - 2 + 8 = 30$   
 $30 = 30$

**24 - B**

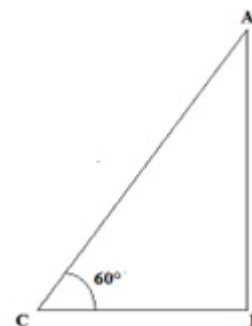
Explanation: First 15 overs in a cricket game run rate = 8.4  
 Required run rate in the remaining 35 overs to reach the target of 266 runs  
 Required Run rate  
 $= \frac{266 - (8.4 \times 15)}{35}$   
 $= \frac{266 - 126}{35}$   
 $= \frac{266 - 126}{35} = \frac{140}{35} = 4$

**25 - C**

Explanation: The translator which perform macro expansion is called a Macro pre-processor.

**26 - C**

Explanation: If the given year is not a leap year then calendar will repeat after 28 years (+11, +11 and +6 = 28 years). 28 years after 1990 will be 2018. Hence calendar of 1990 will repeat in 2018.

**27 - C**

Explanation:

Let AB be the man and BC be his shadow

$$AB = 240$$

$$\tan 60^\circ = \frac{AB}{BC}$$

$$\sqrt{3} = \frac{AB}{BC}$$

$$BC = \frac{240}{\sqrt{3}} = 138.56 \text{ cm}$$

**28 - B**

Explanation: Displacement in  $n$ th second is given by formula-

$$S_n = u + \frac{a(2n-1)}{2}$$

$$\frac{S_5}{S_4} = \frac{0 + \frac{a(2 \times 5 - 1)}{2}}{0 + \frac{a(2 \times 4 - 1)}{2}} \frac{S_5}{S_4} = \frac{9}{7}$$

**29 - A**

Explanation: Grandfather has only one granddaughter, who is the introducing lady herself. So the man is her husband.

**30 - C**

Explanation: First digit moves to last and the remaining two shift left.

**31 - C**

Explanation: Polyline is used to create line while creating a Cutting Plane line with AutoCAD.

**32 - D**

Explanation:  $\frac{C}{5} = \frac{F-32}{9}$

$$\frac{C}{5} = \frac{149-32}{9}$$

$$\frac{C}{5} = 13$$

$$C = 65^\circ C$$

**33 - D**

Explanation: The drawing board is made up of thin sheets of seasoned soft wood, arranged in a line so as to form a rectangle.

**34 - D**

Explanation: Both the conclusions logically follow from the information given in the statement. The term milk glut clearly indicates that the milk production of State 'X' is more than its requirement. Again, it is clearly mentioned that the Government and co-operative dairies in State 'X' failed to use the available milk. It implies that such dairies in State 'X' are not equipped properly.

**35 - C**

Explanation: The Indian Army and the Royal Thai Army has recently completed a two-week-long platoon level annual joint military exercise Maitree 2018 in Thailand. The exercise aimed at strengthening partnership and cooperation between India and Thailand.

**36 - C**

Explanation: The percentage of Indian population with Hindi as their mother tongue has risen to 43.63% from 41.03% in 2001, according to data on language released on Tuesday as part of Census 2011. Bengali remains the second most spoken language. Sanskrit was the least spoken of the country's 22 scheduled languages, with just 24,821 persons listing it as their mother tongue.

**37 - B**

Explanation: Ranchi man Ranjit Srivastava, has developed an Indian version of 'Sophia,' a social humanoid robot developed by a Hong Kong based company, named Rashmi which can speak Hindi, Bhojpuri and Marathi along with English

**38 - B**

Explanation: A broken-out section is part of an existing drawing view, that is used to remove material to a specified depth in order to expose inner details of a model. Broken-out section is limited by a break line.

**39 - B**

Explanation: Japan has dethroned China becoming world's second largest stock market, according to Bloomberg's report 2018. The Chinese market was worth \$ 6.09 trillion next to Japan's \$ 6.17 trillion. Both markets are ranked after the US which is the world's largest at just over \$ 31 trillion.

**40 - C**

Explanation: Hydrogen is the most common matter in space. The Sun is almost wholly composed of hydrogen. It burns to give energy and helium, an inert gas on the sun. Data sent by New Horizons have made NASA scientists believe it the hydrogen wall. Earlier, the space was believed to be a continuous expanse of an imaginary sheet called ether.

**41 - C**

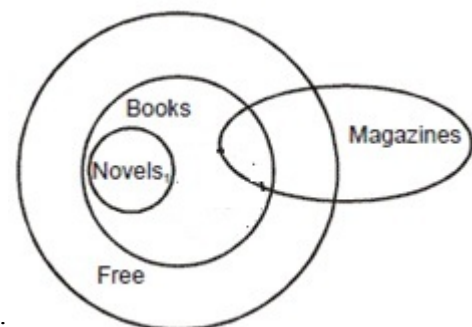
Explanation: Sea Prayer is authored by Khaled Hosseini – an Afghan born American novelist; published by Bloomsbury and illustrated by Dan Williams, the book marks the third anniversary of the death of the three-year-old Syrian refugee, Alan Kurdi.

**42 - D**

Explanation:  $F = G \frac{m_1 m_2}{r^2}$   $F = 6.675 \times \frac{4 \times 4}{2^2} \times 10^{-11}$

$$F = 26.7 \times 10^{-11} \text{ Newton}$$

**43 - D**



Explanation:

**44 - D**

Explanation: L.C.M. of 5, 6, 4 and 3 = 60.  
On dividing 2177 by 60, the remainder is 17.  
Number to be added = (60 - 17) = 43.

**45 - C**

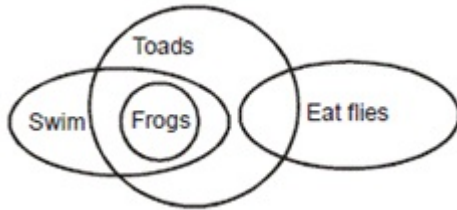


Explanation: We know that Work = force \* displacement.  
On circular path, in a complete revolution total displacement is zero so work done is zero.

46 - A

Explanation: India has been designated as a nodal centre for preparing flash-flood forecasts by the World Meteorological Organization (WMO). That means India will have to develop a customized model that can issue advance warning of floods in Vietnam, Sri Lanka, Myanmar and Thailand.

47 - D



Explanation:

48 - A

Explanation: 1+1+1 = 3  
Wednesday + 3 = Saturday

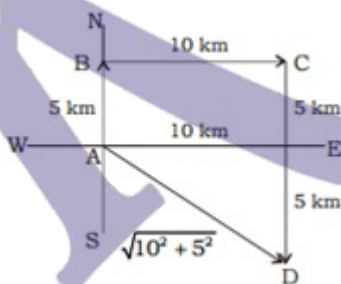
49 - A

Explanation:  $16 + 5 - 10 \times 4 \div 3 = 9$   
after changing signs according to question  
 $16 \times 5 \div 1 + 4 - 3 = 9$   
 $16 \times 0.5 + 4 - 3 = 9$   
 $8 + 4 - 3 = 9$   
 $9 = 9$   
Option A is right answer

50 - C

Explanation: If an isometric projection is drawn with true measurements but not with isometric scale then the drawings are called Isometric view.

51 - A



Explanation:

We have  $AD = \sqrt{100 + 25} = \sqrt{125} \text{ km/s}$

52 - D

Explanation: The upgraded air version of the Nag missile which is a third generation 'fire-and-forget' anti-tank guided missile (ATGM) - 'HELINA' has been successfully tested from indigenous Light Combat Helicopter (LCH) in Pokharan, developed by Defence Research Development Organizations.

53 - C

Explanation: Order will be:-  
C  
D  
K  
E  
F

54 - B

Explanation: Principal = Rs 9000  
No. of years = 3  
Rate of interest = 10  
Amount =  $P \left[ 1 + \frac{r}{100} \right]^n$   
 $= 9000 \times \left[ 1 + \frac{10}{100} \right]^3$   
 $= 9000 \times \frac{11}{10} \times \frac{11}{10} \times \frac{11}{10}$   
 $= 11979$   
Amount = Rs. 11979  
CI = Rs. 11979 - Rs. 9000 = 2979

55 - A



Explanation:

56 - D

Explanation: Given, two points,  $(x_1, y_1) = (10, 3)$   
And  $(x_2, y_2) = (-2, 8)$   
Distance between the points =  
 $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$   
 $\sqrt{(-2 - 10)^2 + (8 - 3)^2}$   
 $= \sqrt{144 + 25}$   
 $= \sqrt{169}$   
 $= 13$   
Thus, Distance between the points = 13 units

57 - B

Explanation: The Kowsar recently unveiled by Iran is a fourth-generation indigenously developed fighter jet capable of carrying "various weapons" systems with advanced avionics, multi-purpose radar and a fire control system. The dual-cockpit single tail fin jet is expected to be used for short aerial support missions.

58 - C

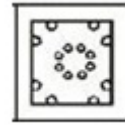
Explanation: Principal, P = 1240 Rs, Rate of interest R = 9%, time, T = 8 years  
 $SI = \frac{P \times R \times T}{100}$   
 $SI = \frac{1240 \times 9 \times 8}{100}$   
SI = Rs. 892.80  
Amount = Principal + S.I  
Amount paid by Sanjeev to his friend = 1240 + 892.8 = Rs 2132.80

59 - D

Explanation: For drawing perpendicular to a given line through a point that is outside the line and is nearer to the end of the line we first cut an arc with radius equal to AD, keeping centre at A. then we draw another arc with radius DP keeping centre at P. Then join both intersection points we get the perpendicular.



we unfold the paper for the second time we will get



60 - C

Explanation: Then, Area of triangle

$$= \frac{1}{2} \times |(x_1y_2 + x_2y_3 + x_3y_1) - (x_2y_1 + x_3y_2 + x_1y_3)|$$

$$= \frac{1}{2} \times |(2 \times 5 + 4 \times 3 + 6 \times 3) - (4 \times 3 + 6 \times 5 + 2 \times 6)|$$

$$= \frac{1}{2} \times |(10 + 12 + 18) - (12 + 30 + 6)|$$

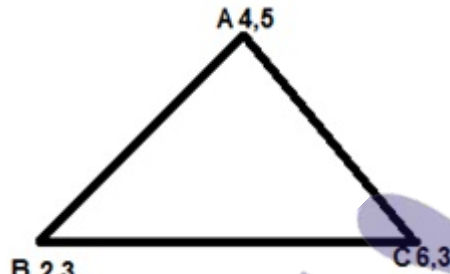
$$= \frac{1}{2} \times |40 - 48|$$

$$= \frac{1}{2} \times |(-8)|$$

$$= \frac{1}{2} \times 8$$

$$= 4$$

Therefore, Area of Triangle = 4 sq. units  
Second method:



BC = 6 - 2 = 4 units  
Height = 5 - 3 = 2 units.  
Area of  $\Delta ABC = \frac{1}{2} \times 4 \times 2 = 4$  sq. units.

61 - C

Explanation: Dictionary order:-

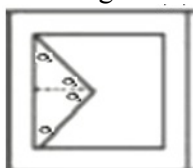
4. Zenith
1. Zephyr
5. Zig-Zag
2. Zodiac
3. Zoonomy

62 - A

Explanation: The view which is watched parallel to the plane gives the actual length of line here as is its profile plane the view will be side view if it comes to vertical plane the view is front view and if it comes to the horizontal plane the view is top view.

63 - B

Explanation: when we unfold the paper for the first time we will get



we unfold the paper for second time we will get

- M = 610, 76, 810, 98, 107  
I = 66, 710, 86, 910, 108  
L = 69, 77, 88, 97, 109  
K = 68, 79, 87, 99, 106

Explanation:

65 - B



Explanation:

66 - A

Explanation: India won 8 medals in the two day Junior Asian Wrestling Championship comprised up of 2 gold, 3 silver and 3 bronze. Sachin Rathi won the gold after winning the bout in the 74-kilogram category. Deepak Punia then won the gold in the 86 kilogram category.

67 - B

Explanation: Given, equation of circle is  $x^2 + y^2 = 26$   
the center-radius form of the circle equation is in the form at  $(x - h)^2 + (y - k)^2 = r^2$   
with the center being at the point (h,k) and the radius being "r"  
 $x^2 + y^2 = 26$   
 $(x - 0)^2 + (y - 0)^2 = 26$   
On comparing this eqn with the standard one  
Thus,  $r^2 = 26$   
Area of circle =  $\pi \times r^2$   
 $= 26\pi$   
Thus, Area of circle =  $26\pi$

68 - D

Explanation: Let the number of cars sold by A, B and C be a, b and c respectively.

Then,  
 $a = \frac{4}{3}b = \frac{3}{4}c$   
and  $a - b = 150$   
 $\frac{4}{3}b - b = 150$   
 $b = 150 \times 3 = 450$   
So  $a = \frac{4}{3}b = \frac{4}{3} \times 450 = 600$

$$c = \frac{4}{3}a = \frac{4}{3} \times 600 = 800$$

Total number of car sold by A and C=1400

69 - A

Explanation: Given, radius=22 unit

Height=16 unit

Curved surface area of the cone=  $\pi rL$

Where,  $L = \sqrt{(r^2 + h^2)}$

$$L = \sqrt{(22^2 + 16^2)}$$

$$L = \sqrt{(484 + 256)}$$

$$L = \sqrt{740}$$

$$L=27.20$$

Curved surface area of the cone=  $\pi rL$

$$= \frac{22}{7} \times 22 \times 27.20$$

1880.6 square unit

70 - D

Explanation: We know that-

$$V = \sqrt{V_R^2 + V_C^2} \quad V=13$$

$$V_R = 5$$

$$13 = \sqrt{5^2 + V_C^2}$$

$$169 = 25 + V_C^2$$

$$V_C^2 = 144$$

$$V_C = 12V$$

71 - A

Explanation: Mean of 15 observations = 18

Mean of another 10 observations = 14

Total sum = 270 + 140 = 410

Mean of 25 observations =  $\frac{410}{25} = 16.4$

72 - C

Explanation: We know that -

$F \propto \frac{1}{r^2}$  So if r becomes trippled the

F reduces to  $\frac{F}{9}$

73 - D

Explanation: No of observation=10

Median=30

Median=Value of  $\frac{1}{2} \left[ \left( \frac{n}{2} \right)^{th} \text{ term} + \left( \frac{n}{2} + 1 \right)^{th} \text{ term} \right]$

$30 = \text{value of } \frac{1}{2} \left[ \left( \frac{10}{2} \right)^{th} \text{ term} + \left( \frac{10}{2} + 1 \right)^{th} \text{ term} \right]$

$30 = \text{value of } \frac{1}{2} [5^{\text{th}} \text{ term} + 6^{\text{th}} \text{ term}]$

$$30 = \frac{1}{2} [P + 2 + P + 4]$$

$$2P=54$$

$$P=27$$

74 - C

Explanation:  $45^\circ$  can be drawn using  $45^\circ$  Set-square, and  $30^\circ$ ,  $60^\circ$  can be drawn using  $30^\circ - 60^\circ$  Set-square, but to draw  $75^\circ$  degrees we need both Set-squares.

75 - A

Explanation: WINDOW stands for Wide interactive Network Development for Office work solution.

76 - C

Explanation: Let the number be x,

$$\text{Then, } x + 16 = \frac{57}{x}$$

$$x^2 + 16x - 57 = 0$$

$$(x + 19)(x - 3) = 0$$

$$x=3$$

77 - C

Explanation: 1 mm=0.001 m; 40 mm =  $4 \times 10^{-2}m$

Force constant  $k = \frac{F}{x} = \frac{10}{0.001} = 10^4 \frac{N}{m}$

Work done=Potential energy of spring

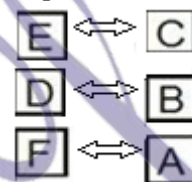
$$\text{Work done} = \frac{1}{2}(kx^2)$$

$$\text{Work done} = \frac{1}{2}(10^4 \times 16 \times 10^{-4})$$

$$\text{Work done}=8 \text{ Joule}$$

78 - B

Explanation: The opposite faces are:



Since opposite faces cannot be on the adjacent side, therefore, the answer figure (B) is correct.



(B)

79 - B

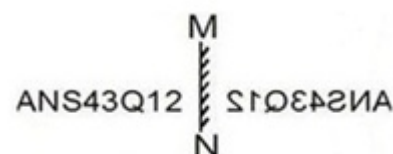
Explanation: Only assumption II is implicit in the given statement. The finance company has made the advertisement assuming that people will be attracted towards it. Assumption I is not implicit since the statement doesn't points to anything to hint the same.

80 - D

Explanation: Both the arguments are strong. Since literacy does not guarantee political maturity, it cannot be the minimum criterion for becoming a voter.

Similarly, if illiterate people are not likely to make politically wise decisions, then literacy should be the minimum criterion for becoming a voter in India.

81 - D



Explanation:

82 - C



Explanation: Only ac machines are used for open type of winding inside the machine.

83 - D

Explanation: Bandipur, Madumalai, and Teekady are wildlife Sanctuaries while Vedan thangal is bird sanctuary

84 - C

Explanation: The Punjab Government has started 'Tatkal Sewa' for property registration recently. The state government has fixed the sum of Rs 5,000 as facilitation charges to seek appointment for 'Tatkal' (instant) registration for properties. Beside this, an hour-long slot from 9 am to 10 am has been reserved for availing the service under instant mode.

85 - A

Explanation: The show ip interface command provides tons of useful information about the configuration and status of the IP protocol and its services, on all interfaces.

86 - B

Explanation: While working alone, work done by A and B in one day is  $\frac{1}{10}$  and  $\frac{1}{6}$  units respectively.

Work done by A and B in first 3 days =  $3 \left( \frac{1}{10} + \frac{1}{6} \right) = \frac{4}{5}$  unit

Remaining Work =  $\frac{1}{5}$  unit

Time taken by B alone to complete the remaining work =  $\frac{\frac{1}{5}}{\frac{1}{6}} = \frac{6}{5}$  days

87 - D

Explanation: Neither of the assumptions is implicit in the given statement. Reducing excise duty will not ensure an increase in sale. It is possible that even after reducing the excise duty the prices are so high that a many people cannot afford them. Assumption II is not implicit since nothing has been stated in the statement that points to the fact that the government will still be able to maintain its tax receipts.

88 - C

Explanation: In this figure just hold any quarter at center and start rotating it in clockwise direction.

Step 1:-



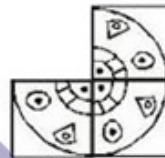
Step 2:-

rotate it by 90° in clock-wise direction



Step 3:-

rotate it by 90° in clock-wise direction



Step 4:-

rotate it by 90° in clock-wise direction



89 - B

Explanation: On the basis of an assessment of the current and evolving macroeconomic situation the Monetary Policy Committee (MPC) decided to increase the policy repo rate under the liquidity adjustment facility (LAF) by 25 basis points to 6.50%. The reverse repo rate under the LAF stands adjusted to 6.25% and the marginal standing facility (MSF) rate and the Bank Rate to 6.75%

90 - B

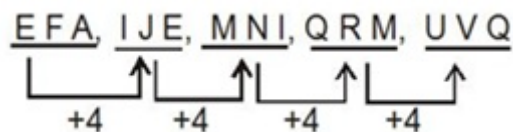
Explanation: Two or more circles with same centre and different radii, are termed as concentric circle.

91 - C

Explanation: State-owned Oil and Natural Gas Corp (ONGC) has bagged top honors at the Swachhta Pakhwada Awards, an oil ministry initiative to honor companies and individuals doing exemplary work in cleanliness. Besides maintaining basic hygiene and cleanliness ONGC has also constructed school toilets, community toilets, planted a number of trees across the country.

92 - C

Explanation:



93 - C

Explanation: Quantity of alcohol left after 4th Operation  
 $= 100 \left( 1 - \frac{10}{100} \right)^4$   
 $= 100 \left( \frac{9}{10} \right)^4$   
 $= 65.61$  liters

Quantity of water in the jar after 4th operation  
 $=100-65.61$   
 $=34.39$  liters

**94 - B**

Explanation:  $\frac{8.5 \times 5.8 + 8.5 \times 4.2}{1.7 \times 7.6 - 1.7 \times 6.6}$   
 $= \frac{8.5(5.8+4.2)}{1.7(7.6-6.6)}$   
 $= \frac{8.5 \times 10}{1.7 \times 1}$   
 $=50$

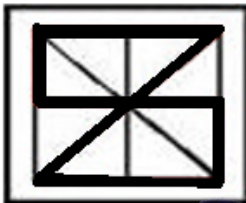
**95 - D**

Explanation: C A N C E L.....letter A is missing.

**96 - B**

Explanation: In Trimetric projection, each of the axes has different ratios of foreshortening.

**97 - A**



Explanation:

**98 - D**

Explanation: Neither conclusion I nor conclusion II follows. It is mentioned in the statement the Government has decided to withdraw 33 per cent of the subsidy on cooking gas and not 33 per cent of the actual price of the cooking gas. Therefore, it is erroneous to assume that the price of the cooking gas will increase at least by 33 per cent. Any policy of the Government affects all sections of the society and it cannot be assumed that poor people do not need subsidy. Thus, neither of the conclusions follows.

**99 - A**

Explanation: In steady state there is no absorption of heat in any position. Heat passes on or is radiated from its surface. Therefore, in steady state the temperature of the body does not change with time but can be different at different points of the body.

**100 - B**

Explanation: Let the investment of Ramesh be Rs 100.  
 So investment of Kunal = 25 % less than Ramesh = Rs 75  
 Investment of Punit = 20 % more than Kunal = 20 % more than Rs 75 = Rs 90

Ratio of investment of Punit, Kunal and Ramesh = 90:75:100 = 18:15:20

Investment Ramesh =  $\frac{15}{18+15+20} \times 3710 = Rs 1400$