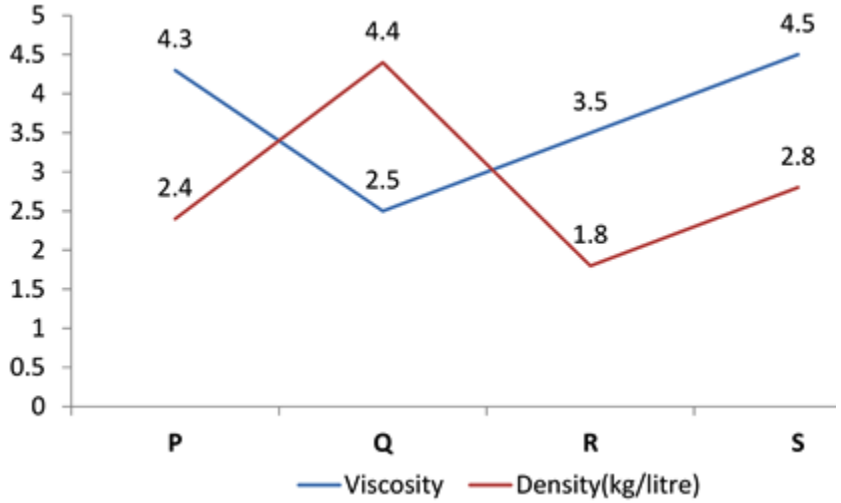
Date Interpretation Mixed Chart Questions Quiz for Bank PO Pre and Clerk Mains Exams.

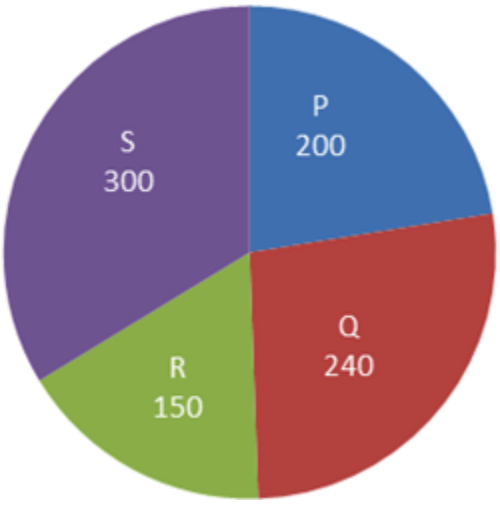
Data Interpretation Mixed Chart Quiz 20

Direction: Study the following line chart and pie chart carefully and answer the questions based on it.

Below is given a line chart that shows viscosity and density of some liquids. A pie chart is also given that shows the quantity of each of those liquids available.



Quantity (in litres)



Weight = Volume × Density

1. What is the weight of liquid R, that is available?(in kg)

A. 240 B. 255 C. 270 D. 285 E. 300

2. The flow of a liquid is inversely proportional to its viscosity. If all of liquid P takes 3 hours to flow, then what will be the time taken by all of liquid Q to flow?(in hours)

A. 4 B. 5.125 C. 6.192 D. 6.375 E. 7.5

3. By what percentage is weight of liquid S less than that of liquid Q?

A. 20.45% B. 22.22% C. 26.71% D. 28.14% E. 30%

4. If weights of all the liquids available are represented in a pie chart, then what will be the angle subtended by the sector representing liquid R at the centre?(in degrees)

A. 32.29 B. 36.73 C. 39.18 D. 42.25 E. 45

5. If all liquids are mixed together, then what will be the resultant density of mixture?(in kg/litre)

A. 2.671 B. 2.81 C. 2.973 D. 3.043 E. 3.117

Correct Answers:

1	2	3	4	5
C	C	A	B	C

Explanations:

1. We know,
Weight = Volume × Density
∴ Weight of liquid R = 150 × 1.8 kg = 270 kg
Hence, option (C) is correct.

2. 200 litres of liquid P flows in 3 hours.

1 litre of liquid P will flow in $\frac{3}{200}$ hours

The flow of a liquid is inversely proportional to its viscosity.

$\Rightarrow$ Time taken by 1 litre liquid Q to flow = $\frac{\frac{3}{200} \times 4.3}{2.5}$ = 0.0.258 hours

$\Rightarrow$ Time taken by 240 litres liquid Q to flow = 240 × 0.0258 hours = 6.192 hours
Hence, option (C) is correct.

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3. Weight = Volume × Density
$\Rightarrow$ Weight of liquid S = 300 × 2.8 kg = 840 kg
$\Rightarrow$ Weight of liquid Q = 240 × 4.4 kg = 1056 kg
Percentage by which weight of liquid S is less than that of liquid Q

$= \frac{1056 - 840}{1056} \times 100 = 20.45\%$

Hence, option (A) is correct.

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4. Weight = Volume × Density
$\Rightarrow$ Weight of liquid P = 200 × 2.4 kg = 480 kg
$\Rightarrow$ Weight of liquid S = 300 × 2.8 kg = 840 kg
$\Rightarrow$ Weight of liquid Q = 240 × 4.4 kg = 1056 kg
$\Rightarrow$ Weight of liquid R = 150 × 1.8 kg = 270 kg
$\therefore$ Angle subtended = $\frac{270}{480 + 840 + 1056 + 270} \times 360$ degrees
= 36.73 degrees

Hence, option (B) is correct.

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5. Weight = Volume × Density
$\Rightarrow$ Weight of liquid P = 200 × 2.4 kg = 480 kg
$\Rightarrow$ Weight of liquid S = 300 × 2.8 kg = 840 kg
$\Rightarrow$ Weight of liquid Q = 240 × 4.4 kg = 1056 kg
$\Rightarrow$ Weight of liquid R = 150 × 1.8 kg = 270 kg
Total weight = (480 + 840 + 1056 + 270) kg = 2646 kg
Total volume = (200 + 240 + 150 + 300) litres = 890 litres
$\therefore$ Resultant density = $\frac{\text{Weight}}{\text{Volume}} = \frac{2646}{890}$ = 2.973 kg/litre
Hence, option (C) is correct.