

IBPS BANK PO/MT CWE - V (PRELIMINARY) , 04-10-2015 - PREVIOUS YEAR PAPER

ENGLISH LANGUAGE

Directions(1-5) : Each sentence below has two blanks, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.

1. As many as five DJ's..... up at the party, making it a night to.....
(1) came, recollect
(2) drove, memorise
(3) turned, remember
(4) jammed. forget
(5) stared, stop

Solution:1

2. Over the next two years, the company willabout USD 100 million in..... up tech- nology and brand building.
(1) indulge, gearing
(2) pump, boosting
(3) supply, hiring
(4) invest, ramping
(5) spend, upgrading

Solution:5

3. The government has invested..... topublic transport.
(1) heavily, improved
(2) heavy, improve
(3) heavily, improve
(4) lightly, improving
(5) with, aggravate

Solution:3

4. This multi-purpose project has demanded..... investment..... time

and effort.

- (1) considerable, of
- (2) considerable, with
- (3) considering, for
- (4) reflective, for
- (5) considered, of

Solution:1

5. We need to work..... to remainwith other companies.
- (1) hardly, competitive
 - (2) harder, competitive
 - (3) harder, competition
 - (4) hard, calm
 - (5) heavily, strict

Solution:2

Directions (6-15) : Read the following passage carefully and answer the questions. Certain words/ phrases are given in **bold** to help you locate them while answering some of the questions.

Banks in Australia have a certain upside-down quality to them. Their share prices broke free from the put that dragged down their international rivals during the 2008 financial crisis. In recent years, they have soared as others have sagged. Now that big banks in other rich countries are regaining their pose, as in most of the global economy, it is the turn of Australia's to slide. This topsy-turvy behaviour may yet continue given its worsening outlook. Serving a buoyant domestic economy with none-toofierce competition, Australia's big four lenders – Commonwealth Banks, National Australia Bank (NAB), ANZ and Westpac-used to delight shareholders with **bumper** dividends. But concerns over their balance-sheets and exposure to Australia's housing market have caused their shares to **dip**. Investors fear that the exceptional circumstances underpinning the vibrant returns of recent years are coming to an end. The commodity "super-cycle" that boosted both Australia and its banks has fizzled. Unemployment is creeping up. The biggest concern is the health of banks' mortgage books. Home loans have been **fabulously** lucrative for Australian banks but this is changing. According to analysts, return on them top 50%, which would make even precrisis Wall Street bankers happy. No wonder, then that domestic home loans now represent 40-60% of Australian banks assets, up from 15 30% in the early 1990s. Mortgages in New Zealand account for another 5-10%. A growing number of loans are going to property speculators or to a homeowners paying back only the interest on their

loan. Recent stress test suggested that a property downturn would **ravage** banks. Regulators trot about the lack of diversification in banks, especially given their dependence on foreign money for funding. They want banks to **curb** growth in the riskiest mortgages and to finance them with more equity and less debt. A government inquiry into the Australian financial system called for banks to be better capitalised. Collectively, Australian banks may need as much as A\$40 billion in fresh capital to meet regulators demands. The big four are still highly profitable and their returns will remain better than most despite all the new equity they will have to raise. After all, banks around the world are being forced to fund themselves with more equity. Aussie borrowers are less likely to default on mortgages than American ones, as lenders have a claim on all their assets, not just the property in question. But there are other concerns as well. Credit growth in Australia is slowing. Expansion into crowded Asian market seems difficult which leaves little scope for diversification. If they cannot make banks less dependent on mortgages, regulators will have to find other ways to make them safer.

6. Choose the word which is most nearly the same in meaning as the word RAVAGE given in bold as used in the pas sage?

- (1) steal
- (2) attack
- (3) invade
- (4) devastate
- (5) scam

Solution:4

7. Which of the following is true in the context of the passage?

- (1) Australia's banks are still struggling to recover from the 2008 crisis.
- (2) Unemployment in Australia is on rise.
- (3) Regulators are unwilling to enforce strict reforms on the banking sector.
- (4) Australian banks have a surplus of capital according to regulators.
- (5) None of the given options is triie, in the context of the passage.

Solution:2

8. What do the assets regarding assets of Australia cited in the passage convey?

- (1) Bank assets are heavily concentrated in the housing sector.
- (2) Australian banks have invested too heavily in property markets of other countries.
- (3) The four banks are in imminent danger of collapse.
- (4) Australian banks are safe and are growing from strength to strength.

(5) Australian banks have a huge number of defaulters.

Solution:1

9. What is the author's view of the global economy at present?

(1) The global economy is unlikely to recover as economic reforms are not stringent.

(2) Rich economies have yet to recover while emerging markets are thriving.

(3) The economy is in turmoil as large Asian economies are experiencing a crisis.

(4) Many European countries are in debt and likely to default on their loans.

(5) Other than those given as options.

Solution:5

10. Choose the word which is most nearly the opposite in meaning as the word **DIP** given in bold as used in the passage.

(1) immense

(2) equal

(3) rise

(4) dry

(5) decline

Solution:3

11. Choose the word which is most nearly the opposite in meaning as the word **FABULOUSLY** given in bold as used in the passage.

(1) terrifically

(2) insignificantly

(3) gravely

(4) harshly

(5) easily

Solution:2

12. Choose the word which is most nearly the same in meaning as the word **BUMPER** given in bold as used in the passage.

(1) buffer

(2) impact

(3) adequate

(4) frequent

(5) huge

Solution:5

13. According to the passage, which of the following factors was/were responsible for

the Australian economy's performance during the 2008 global crisis?

(A) Australian banks invested in American hedge funds.

(B) Australia inexperienced a commodity base.

(C) Lack of investment in emerging markets.

(1) Only (A)

(2) Only (C)

(3) All (A), (B) and (C)

(4) Only (A) and (C)

(5) Only (B)

Solution:5

14. Which of the following is the central idea of the passage?

(1) Restructuring of Australia's banks has been very successful.

(2) Australia's housing sector is enjoying a boom.

(3) The powers of Australia's banking regulator should be curtailed.

(4) Australia's banking sector is vulnerable and headed for difficulty.

(5) Australia is the best forming of all advanced economies at present.

Solution:4

15. Which of the following best describes the regulator's view of Australia's economy?

(1) Australian banks should adopt American system of mortgage to safeguard the economy.

(2) Australia should withdraw from risky emerging markets.

(3) There is a need for some corrections and reforms to be implemented.

(4) Australia has insulated itself from foreign markets, and this has hampered growth.

(5) Its economy is soaring and recapitalisation and diversification reforms may be withdrawn.

Solution:2

Directions (16-20) : *Rearrange the given six sentences/group of sentences (A), (B), (C), (D), (E) and (F) in a proper sequence so as to form a meaningful paragraph and then answer the given questions.*

(A) For years, it relied upon export-led growth and massive investments in housing, infrastructure (roads, rails, ports) and heavy industry (steel, glass and aluminium).

(B) China is engineering, a major economic transformation-or, at least, trying.

(C) Whether this conversion succeeds or fails is a momentous story but a China that succeeds is more likely to be stable.

(D) However, this economic model now seems spent.

(E) So, the country is switching its engine of growth to consumer spending on services and light manufacturing.

(F) A possible reason behind this model becoming outdated could be that world trade is weak at present and overinvestment in housing, infrastructure and industry has caused a glut.

16. Which of the following should be the **FIRST** sentence after rearrangement?

(1) A

(2) C

(3) B

(4) F

(5) E

Solution:3

17. Which of the following should be the **FIFTH** sentence after rearrangement?

(1) A

(2) D

(3) E

(4) F

(5) C

Solution:3

18. Which of the following should be the **FOURTH** sentence after rearrangement?

(1) A

(2) B

(3) C

(4) F

(5) E

Solution:4

19. Which of the following should be the **SECOND** sentence after rearrangement?

(1) A

(2) B

(3) F

(4) D

(5) E

Solution:1

20. Which of the following should be the **SIXTH (LAST)** sentence after rearrangement?

- (1) C
- (2) F
- (3) A
- (4) B
- (5) D

Solution:1

Directions (21-25) : *In the following questions, read each sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. Select the part with the error as your answer. If there is no error, select 'No error' as your answer. Ignore the errors of punctuation, if any.*

21. Students who dread not making it to school (1)/ before time 6 : 55 a.m. assembly, may have find it comforting pu that a scientist wants to prove that schools (3),/ deprive children of much needed sleep by starting early. (4)/ No error (5)

Solution:2

22. While the real estate market has being (1)/ stable, it's time to purchase a property now (2)/ and enjoy the benefits (3)/ when prices escalate. (4)/ No error (5)

Solution:1

23. Taxi-hailing ventures are significantly (1)/ increasing the number of cabs (2)/ that offer free Wi-Fi, (3)/ following the success of pilot projects. (4)/ No error (5)

Solution:5

24. Organic milk has (1)/ higher omega-3 fat levels, (2)/ but probability not enough (3)/ to make a different. (4)/ No error (5)

Solution:3

25. By early next week, (1)/ the State Government is likely (2)/ of declare (3)/ a drought in 8000 villages. (4)/ No error (5)

Solution:3

Directions (26-30) : *In the following passage, there are blanks, each of which has been numbered. Against each, five words are suggested. one of which fits the blank appropriately. Find out the appropriate word in each case.*

Education has been a problem in our country for **(26)**. The lack of it has been

blamed for all **(27)** of evil for hundreds of years. Even scholars have written lengthy articles about how the Indian education system needs to change. The funny thing is that from colonial times, things have **(28)** changed. We have established reputed business schools, law schools and other institutions of excellence. Students, now, so routinely score 90% marks that even with this percentage they find it **(29)** to get into the colleges of their choice. The problem thus lies with us doing more of the same old staff. This needs to change by bringing about **(30)** in education.

26. (1) time
(2) take
(3) ever
(4) long
(5) decade

Solution:4

27. (1) possession
(2) abundance
(3) typical
(4) places
(5) sorts

Solution:5

28. (1) bare
(2) hardly
(3) little
(4) much
(5) highly

Solution:2

29. (1) simple
(2) easy
(3) irregular
(4) noble
(5) difficult

Solution:5

30. (1) innovation
(2) dreams
(3) creating
(4) foreign

(5) choice

Solution:1

QUANTITATIVE APTITUDE

1. The sum invested in scheme B is twice the sum invested in scheme A. Investment in scheme A is made for 3 years at 8% p.a. simple interest and in Scheme B for 2 years at 9% p.a. simple interest. The total interest earned from both the schemes is Rs. 1800. How much was invested in Scheme A?
- (1) Rs. 4000
(2) Rs. 3500
(3) Rs. 3000
(4) Rs. 2500
(5) Rs. 4500

Solution:3

(3) Amount invested in scheme A = Rs. x (let).

\therefore Amount invested in scheme B = Rs. $2x$

$$\text{S.I.} = \frac{\text{Principal} \times \text{Time} \times \text{Rate}}{100}$$

According to the question,

$$\frac{x \times 3 \times 8}{100} + \frac{2x \times 2 \times 9}{100} = 1800$$

$$\Rightarrow \frac{24x + 36x}{100} = 1800$$

$$\Rightarrow 60x = 180000$$

$$\Rightarrow x = \frac{180000}{60} = \text{Rs. } 3000$$

2. A bag contains 5 red balls, 7 yellow balls and 3 pink balls. If two balls are drawn at random from the bag, one after another, what is the probability that the first ball is red and the second ball is yellow ?

- (1) $\frac{5}{12}$
(2) $\frac{3}{8}$

(3) $\frac{1}{4}$

(4) $\frac{1}{8}$

(5) $\frac{1}{6}$

Solution:5

(5) Probability of the first ball to be red

$$= \frac{{}^5C_1}{{}^{15}C_1} = \frac{5}{15} = \frac{1}{3}$$

Probability of the second ball to be yellow

$$= \frac{{}^7C_1}{{}^{14}C_1} = \frac{7}{14} = \frac{1}{2}$$

∴ Required probability

$$= \frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$$

3. Ram and Shyam are travelling from point A to B, which are 60km apart. Travelling at a certain speed Ram takes one hour more than Shyam to reach point B. If Ram doubles his speed he will take 30 minutes less than Shyam to reach point B. At what speed was Ram driving from point A to B?
- (1) 15 kmph
(2) 35 kmph
(3) 30 kmph
(4) 25 kmph
(5) 20 kmph

Solution:5

(5) $AB = 60$ km

Ram's speed = x kmph

Shyam's speed = y kmph

Case I,

$$\frac{60}{x} - \frac{60}{y} = 1 \quad \dots (i)$$

Case II,

$$\frac{60}{y} - \frac{60}{2x} = \frac{30}{60} = \frac{1}{2} \quad \dots (ii)$$

On adding equations (i) and (ii),

$$\frac{60}{x} - \frac{60}{2x} = 1 + \frac{1}{2}$$

$$\Rightarrow \frac{60}{x} - \frac{30}{x} = \frac{3}{2}$$

$$\Rightarrow \frac{60 - 30}{x} = \frac{3}{2}$$

$$\Rightarrow 3x = 30 \times 2$$

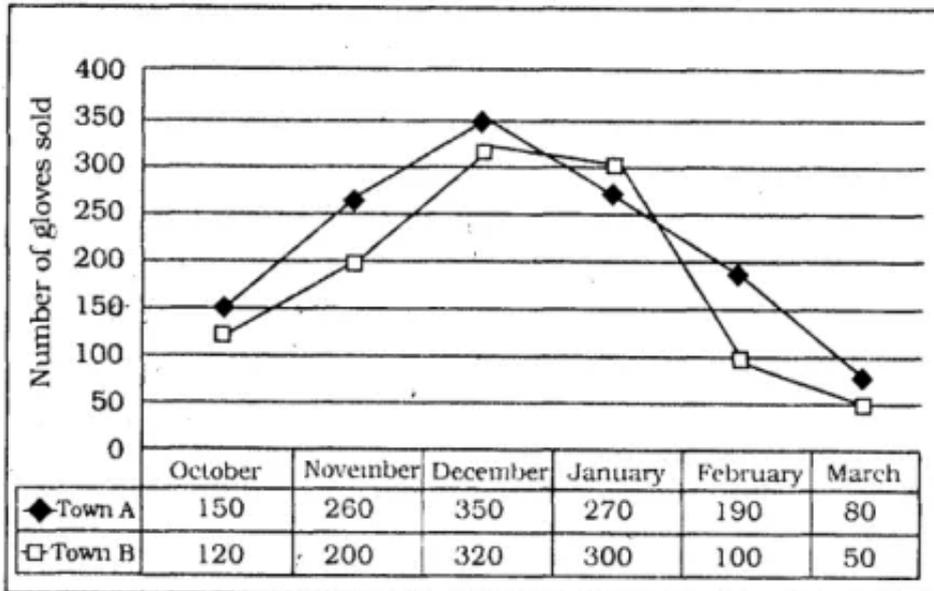
$$\Rightarrow x = \frac{30 \times 2}{3} = 20 \text{ kmph.}$$

4. The sum of the radius and height of a cylinder is 18 metre. The total surface area of the cylinder is 792 sq. metre, what is the volume of the cylinder ? (in cubic metre)
- (1) 1848
(2) 1440
(3) 1716
(4) 1724
(5) 1694

Solution:5

(5) $r + h = 18$ metre ... (i)
 Total surface area of cylinder
 $= 2\pi r (h + r)$
 $\therefore 2\pi r (h + r) = 792$
 $\Rightarrow 2 \times \frac{22}{7} \times r \times 18 = 792$
 $\Rightarrow r = \frac{792 \times 7}{2 \times 22 \times 18} = 7$ metre
 $\therefore h = 18 - 7 = 11$ metre
 \therefore Volume of cylinder $= \pi r^2 h$
 $= \frac{22}{7} \times 7 \times 7 \times 11$
 $= 1694$ cu. metre

Directions (5-9) : Refer to the graph carefully and answer the given questions.
Number of gloves of 'XYZ' brand sold in Town A and Town B in 6 different months



5. The number of gloves sold in Town B increased by what percent from October to December?
- (1) $165\frac{2}{3}$
- (2) $161\frac{1}{3}$
- (3) $164\frac{1}{2}$
- (4) $166\frac{2}{3}$

(5) $162\frac{1}{2}$

Solution:3

(3) Number of gloves sold in town B :

October \Rightarrow 120

December \Rightarrow 320

\therefore Percentage increase

$$= \frac{320 - 120}{120} \times 100$$

$$= \frac{20000}{120} = \frac{500}{3} = 166\frac{2}{3}\%$$

6. What is the difference between the total number of gloves sold in both the towns together in January and the total number of gloves sold in both the towns together in February ?

(1) 280

(2) 270

(3) 290

(4) 260

(5) 250

Solution:1

(1) Total number of gloves sold in January

$$= 270 + 300 = 570$$

Total number of gloves sold in February = $190 + 100 = 290$

Required difference

$$= 570 - 290 = 280$$

7. The number of gloves sold in town A in November is what percent more than the number of gloves sold in Town B in the same month ?

(1) 32

(2) 28

(3) 25

(4) 30

(5) 20

Solution:4

(4) Required percent

$$= \frac{260 - 200}{200} \times 100$$

$$= \frac{60}{2} = 30\%$$

8. What is the average number of gloves sold in Town A in October, November, December and March ?

(1) 215

(2) 220

(3) 225

(4) 210

(5) 205

Solution:4

(4) Required average

$$= \frac{150 + 260 + 350 + 80}{4}$$

$$= \frac{840}{4} = 210$$

9. The total number of gloves sold in Town B in September is 20% less than the number of gloves sold in the same town in October. What is the respective ratio between the number of gloves sold in September and those sold in December in the same town ?

(1) 2 : 9

(2) 1 : 5

(3) 2 : 7

(4) 4 : 9

(5) 3 : 10

Solution:5

(5) Number of gloves sold in September in town B

$$= \frac{120 \times 80}{100} = 96$$

$$\therefore \text{Required ratio} = 96 : 320 \\ = 3 : 10$$

Directions (10-14) : In the following questions two equations numbered I and II are given. You have to solve both the equations and

Give answer (1) if $x > y$

Give answer (2) if $x \geq y$

Give answer (3) if $x < y$

Give answer (4) if $x \leq y$

Give answer (5) if $x = y$ or the relationship cannot be established.

10. I, $x^2 + x - 12 = 0$

II. $y^2 + 2y - 8 = 0$

Solution:2

(2) I. $x^2 + x - 12 = 0$

$\Rightarrow x^2 + 4x - 3x - 12 = 0$

$\Rightarrow x(x + 4) - 3(x + 4) = 0$

$\Rightarrow (x - 3)(x + 4) = 0$

$\Rightarrow x = 3$ or, -4

II. $y^2 + 2y - 8 = 0$

$\Rightarrow y^2 + 4y - 2y - 8 = 0$

$\Rightarrow y(y + 4) - 2(y + 4) = 0$

$\Rightarrow (y + 4)(y - 2) = 0$

$\Rightarrow y = -4$ or, 2

Clearly, $x \geq y$

11. I. $4x^2 - 13x + 9 = 0$

II. $3y^2 - 14y + 16 = 0$

Solution:1

(1) I. $4x^2 - 13x + 9 = 0$

$\Rightarrow 4x^2 - 4x - 9x + 9 = 0$

$\Rightarrow 4x(x - 1) - 9(x - 1) = 0$

$\Rightarrow (x - 1)(4x - 9) = 0$

$\Rightarrow x = 1$ or, $\frac{9}{4}$

II. $3y^2 - 14y + 16 = 0$

$\Rightarrow 3y^2 - 6y - 8y + 16 = 0$

$\Rightarrow 3y(y - 2) - 8(y - 2) = 0$

$\Rightarrow (y - 2)(3y - 8) = 0$

$\Rightarrow y = 2$ or, $\frac{8}{3}$

Clearly, $x > y$

12. I. $8x^2 + 18x + 9 = 0$
 II. $4y^2 + 19y + 21 = 0$

Solution:1

$$\begin{aligned} (1) \text{ I. } & 8x^2 + 18x + 9 = 0 \\ \Rightarrow & 8x^2 + 12x + 6x + 9 = 0 \\ \Rightarrow & 4x(2x + 3) + 3(2x + 3) = 0 \\ \Rightarrow & (2x + 3)(4x + 3) = 0 \\ \Rightarrow & x = \frac{-3}{2} \text{ or, } \frac{-3}{4} \end{aligned}$$

$$\begin{aligned} \text{II. } & 4y^2 + 19y + 21 = 0 \\ \Rightarrow & 4y^2 + 12y + 7y + 21 = 0 \\ \Rightarrow & 4y(y + 3) + 7(y + 3) = 0 \\ \Rightarrow & (y + 3)(4y + 7) = 0 \\ \Rightarrow & y = -3 \text{ or, } \frac{-7}{4} \end{aligned}$$

Clearly, $x > y$

13. I. $3x^2 + 16x + 21 = 0$
 II. $6y^2 + 17y + 12 = 0$

Solution:3

$$\begin{aligned} (3) \text{ I. } & 3x^2 + 16x + 21 = 0 \\ \Rightarrow & 3x^2 + 9x + 7x + 21 = 0 \\ \Rightarrow & 3x(x + 3) + 7(x + 3) = 0 \\ \Rightarrow & (3x + 7)(x + 3) = 0 \\ \Rightarrow & x = \frac{-7}{3} \text{ or, } -3 \end{aligned}$$

$$\begin{aligned} \text{II. } & 6y^2 + 17y + 12 = 0 \\ \Rightarrow & 6y^2 + 9y + 8y + 12 = 0 \\ \Rightarrow & 3y(2y + 3) + 4(2y + 3) = 0 \\ \Rightarrow & (2y + 3)(3y + 4) = 0 \\ \Rightarrow & y = \frac{-3}{2} \text{ or, } \frac{-4}{3} \end{aligned}$$

Clearly, $x < y$

14. I. $x^2 = 49$
 II. $y^2 - 4y - 21 = 0$

Solution:4

$$(4) \text{ I. } x^2 = 49$$

$$\Rightarrow x = \sqrt{49} = \pm 7$$

$$\text{II. } y^2 - 4y - 21 = 0$$

$$\Rightarrow y^2 - 7y + 3y - 21 = 0$$

$$\Rightarrow y(y - 7) + 3(y - 7) = 0$$

$$\Rightarrow (y + 3)(y - 7) = 0$$

$$\Rightarrow y = -3 \text{ or, } 7$$

Clearly, $x \leq y$

15. A and B started a business with the investments in the ratio of 5 : 3 respectively. After 6 months from the start of the business, C joined them and the respective ratio between the investments of B and C was 2 : 3. If the annual profit earned by them was Rs. 12,300, what was the difference between B's share and C's share in the profit ?
- (1) Rs. 900
(2) Rs. 800
(3) Rs. 600
(4) Rs. 400
(5) Rs. 700

Solution:

$$(1) A : B = 5 : 3 = 10 : 6$$

$$B : C = 2 : 3 = 6 : 9$$

$$\therefore A : B : C = 10 : 6 : 9$$

Ratio of the equivalent capitals of A, B and C for 1 month

$$= 10x \times 12 : 6x \times 12 : 9x \times 6$$

$$= 20 : 12 : 9$$

Sum of the terms of ratio

$$= 20 + 12 + 9 = 41$$

\therefore Difference between the shares of B and C

$$= \left(\frac{12 - 9}{41} \right) \times 12300$$

$$= \text{Rs. } 900$$

16. Respective ratio between total number of students studying in College A and College B is 5 : 8. In College B, out of the total number of students, $\frac{5}{8}$ th are boys, out of which 60% study Commerce and the remaining 800 boys study in other streams. What is the total number of students in College A ?
- (1) 1500

- (2) 2500
- (3) 1200
- (4) 4000
- (5) 2000

Solution:5

(5) Total number of students
in college A = $5x$

Total number of students in
college B = $8x$

In college B,

$$\text{Boys} \Rightarrow \frac{5}{8} \times 8x = 5x$$

Boys who study commerce

$$= \frac{5x \times 60}{100} = 3x$$

Boys in other streams

$$= 5x - 3x = 2x$$

$$\therefore 2x = 800 \Rightarrow x = 400$$

\therefore Total number of students
in college A

$$= 5x = 5 \times 400 = 2000$$

17. The respective ratio between speed of the boat upstream and speed of the boat downstream is 3 : 4. What is the speed of the boat in still water if it covers 70 km downstream in 3 hours 30 minutes? (in km/h)
- (1) 18
 - (2) 18.5
 - (3) 17
 - (4) 17.5
 - (5) 16

Solution:4

(4) Rate downstream
 = $4x$ kmph
 Rate upstream = $3x$ kmph
 According to the question,

$$\text{Time} = \frac{\text{Distance}}{\text{Speed}}$$

$$\frac{70}{4x} = 3\frac{1}{2}$$

$$\Rightarrow \frac{70}{4x} = \frac{7}{2}$$

$$\Rightarrow \frac{10}{2x} = 1$$

$$\Rightarrow 2x = 10 \Rightarrow x = 5$$

$$\therefore \text{Rate upstream} = 5 \times 3$$

$$= 15 \text{ kmph}$$

$$\text{Rate downstream} = 5 \times 4$$

$$= 20 \text{ kmph}$$

\therefore Speed of boat in still wa-
 ter

$$= \frac{1}{2} (20 + 15) \text{ kmph}$$

$$= \frac{35}{2} = 17.5 \text{ kmph}$$

Directions (18-22) : Study the table carefully and answer the given questions.

Data related to number of employees in 5 different organisations in April 2013

Companies	Total number of employees	Out of the total number of employees		
		Percentage of Science Graduates	Percentage of Commerce Graduates	Percentage of Arts Graduates
A	—	40%	30%	—
B	—	40%	—	25%
C	900	—	44%	35%
D	1300	48%	—	—
E	—	30%	—	50%

NOTE

(i) Employees of the given companies can be categorized only in three types — Science graduates, Commerce graduates and Arts graduates.

(ii) Few values are missing in the table (indicated by —). A candidate is expected to calculate the missing value, if it is required to answer the given question, on the

basis of the given data and information.

The average number of Science graduate employees and Commerce graduate employees in Company A was

18. What is the total number of employees in Company A ?

(1) 1480

(2) 1520

(3) 1560

(4) 1580

(5) 1440

Solution:1

(1) In company A,
Science and Commerce graduate employees

$$\Rightarrow 2 \times 518 = 1036$$

$$\therefore 70\% \equiv 1036$$

$$\therefore 100\% \equiv \frac{1036}{70} \times 100$$

$$= 1480$$

19. Total number of employees in Company E was 3 times the total number of employees in Company B. If the difference between number of Commerce graduate employees in Company E and that in Company B was 300, what was the total number of employees in Company B ?

(1) 900

(2) 1500

(3) 1200

(4) 1320

(5) 1290

Solution:3

(3) Total employees in company B = x

∴ Total employees in company E = $3x$

According to the question,

$$\Rightarrow (100 - 50 - 30)\% \text{ of } 3x - (100 - 40 - 25)\% \text{ of } x = 300$$

$$\Rightarrow \frac{3x \times 20}{100} - \frac{x \times 35}{100} = 300$$

$$\Rightarrow \frac{60x - 35x}{100} = 300$$

$$\Rightarrow \frac{25x}{100} = 300$$

$$\Rightarrow x = 300 \times 4 = 1200$$

20. If the respective ratio between number of Arts graduate employees and Commerce graduate employees in Company D was 4 : 9. what was the number of Arts graduate employees in Company D ?

(1) 236

(2) 232

(3) 208

(4) 224

(5) 216

Solution:3

(3) In company D

Arts graduate : Commerce graduate = 4 : 9

Arts and Commerce graduate employees

= 52% of 1300

$$= \frac{1300 \times 52}{100} = 676$$

∴ Number of Arts graduate employees

$$= \frac{4}{13} \times 676 = 208$$

21. Total number of employees in Company C increased by 40% from April, 2013 to April, 2014. If 50% of total number of employees in Company C in April, 2014

were Commerce graduates, what was the number of Commerce graduate employees in Company C in April, 2014?

- (1) 650
- (2) 630
- (3) 590
- (4) 570
- (5) 510

Solution:2

(2) Total number of employees
in company C in April 2014

$$= \frac{900 \times 140}{100} = 1260$$

∴ Commerce graduate em-

$$\text{ployees} = \frac{1260}{2} = 630$$

22. What was the difference between number of Science graduate employees and Arts graduate employees in Company C?

- (1) 136
- (2) 132
- (3) 128
- (4) 122
- (5) 126

Solution:5

(5) Percentage of Science grad-
uate employees in Company C

$$= (100 - 44 - 35)\%$$

$$= 21\%$$

∴ Required difference

$$= (35 - 21)\% \text{ of } 900$$

$$= \frac{900 \times 14}{100} = 126$$

23. At present, the respective ratio between the ages of A and B is 3 : 4 and that between A and C is 1 : 2. Six years hence, the sum of ages of A, B and C will be 96 years. What is the present age of A ?

- (1) 12 years
- (2) 21 years

- (3) 18 years
 (4) 15 years
 (5) 9 years

Solution:3

$$(3) A : B = 3 : 4$$

$$A : C = 1 : 2 = 3 : 6$$

$$\therefore A : B : C = 3 : 4 : 6$$

6 years hence,

$$3x + 4x + 6x + 18 = 96$$

$$\Rightarrow 13x = 96 - 18 = 78$$

$$\Rightarrow x = \frac{78}{13} = 6$$

\therefore A's present age

$$= 3x = 18 \text{ years}$$

24. A tank has two inlets : A and B. A alone takes 2 hours and B alone takes 3 hours to fill the empty tank completely when there is no leakage. A leakage was caused which would empty the full tank completely in 'x' hours when no inlet is open. Now, when only inlet A was opened, it took 3 hours to fill the empty tank completely. How much time will B alone take to fill the empty tank completely ? (in hours)
- (1) 4.5
 (2) 7.5
 (3) 3
 (4) 9
 (5) 6

Solution:5

(5) When pipe A is opened, part of the tank emptied by leak in 1 hour

$$= \frac{1}{3} - \frac{1}{2} = \frac{2-3}{6} = -\frac{1}{6}$$

\therefore Time taken in emptying whole tank = 6 hours

\therefore Part of the tank filled in 1 hour by pipe B

$$= \frac{1}{3} - \frac{1}{6} = \frac{2-1}{6} = \frac{1}{6}$$

\therefore Required time = 6 hours

25. 'A' sold an article for Rs. 8000 and incurred a loss. Had he sold the article for Rs. 9800, his gain would have been twice the amount of loss. At what price should the article be sold to earn 20% profit ?

- (1) Rs. 10,840
- (2) Rs. 9,820
- (3) Rs. 10,320
- (4) Rs. 9,840
- (5) Rs. 10,480

Solution:3

(3) Loss = Rs. x (let)

\therefore Profit = Rs. $2x$

According to the question,

C.P of article = Rs. $(8000 + x)$

or, Rs. $(9800 - 2x)$

$\therefore 8000 + x = 9800 - 2x$

$\Rightarrow 2x + x = 9800 - 8000$

$\Rightarrow 3x = 1800$

$\Rightarrow x = \frac{1800}{3} = \text{Rs. } 600$

\therefore C.P. of article

= Rs. $(8000 + 600)$

= Rs. 8600

For a profit of 20%,

S.P of article = $\frac{8600 \times 120}{100}$

= Rs. 10320

Directions (26-30) : What approximate value will come in place of the question mark (?) in the given questions ? (You are not expected to calculate the exact value)

26. $241 \div 15 \times 287.98 \div 18.04 = ?^2$

- (1) 26
- (2) 24
- (3) 18
- (4) 14
- (5) 16

Solution:5

$$(5) ?^2 = 241 \div 15 \times 288 \div 18$$

$$\approx \frac{240}{15} \times \frac{288}{18} \approx 256$$

$$\therefore ? \approx \sqrt{256} = 16$$

27. ?% of 1049 + 74.99% of 420.12 = 524.98

(1) 15

(2) 20

(3) 10

(4) 35

(5) 25

Solution:2

$$(2) \frac{?}{100} \times 1049 + \frac{75 \times 420}{100}$$

$$\approx 525$$

$$\Rightarrow \frac{?}{100} \times 1049 + 315 = 525$$

$$\Rightarrow ? \times 10.5 \approx 525 - 315 \approx 210$$

$$\Rightarrow ? \approx \frac{210}{10.5} = 20$$

28. 246.01 + 2953.98 - 449.98 - 302 = ?

(1) 2020

(2) 2800

(3) 2450

(4) 3000

(5) 3050

Solution:3

$$(3) ? = 246 + 2954 - 450 - 300$$

$$\approx 3200 - 453 \approx 3200 - 750$$

$$\approx 2450$$

29. 299.85 - 145.05 + 29.99 \times 12.02 = ?

- (1) 515
- (2) 395
- (3) 475
- (4) 425
- (5) 575

Solution:1

$$\begin{aligned} (1) \ ? &= 300 - 145 + 30 \times 12 \\ &= 300 - 145 + 360 \\ &= 660 - 145 = 515 \end{aligned}$$

30. $\sqrt{325} \times 7.99 + 705.97 = ?$

- (1) 895
- (2) 750
- (3) 675
- (4) 850
- (5) 800

Solution:4

$$\begin{aligned} (4) \ ? &= \sqrt{324} \times 8 + 706 \\ &= 18 \times 8 + 706 = 144 + 706 \\ &= 850 \end{aligned}$$

[/toggle]

Directions (31-35) : What will come in place of the question mark (?) in each of the following number series ?

31. 9 5 6 10.5 23 ?

- (1) 85
- (2) 60
- (3) 78
- (4) 49
- (5) 97

Solution:2

(2) The pattern is :

$$9 \times 0.5 + 0.5 = 4.5 + 0.5 = 5$$

$$5 \times 1 + 1 = 5 + 1 = 6$$

$$6 \times 1.5 + 1.5 = 9 + 1.5 = 10.5$$

$$10.5 \times 2 + 2 = 21 + 2 = 23$$

$$23 \times 2.5 + 2.5 = 57.5 + 2.5$$

$$\Rightarrow \boxed{60}$$

32. 59 66 80 108 ? 276

(1) 150

(2) 125

(3) 164

(4) 132

(5) 178

Solution:3

(3) The pattern is :

$$59 + 1 \times 7 = 59 + 7 = 66$$

$$66 + 2 \times 7 = 66 + 14 = 80$$

$$80 + 2 \times 14 = 80 + 28 = 108$$

$$108 + 2 \times 28 = 108 + 56$$

$$= \boxed{164}$$

$$164 + 2 \times 56 = 164 + 112 = 276$$

33. 47 23 11 5 2

(1) 0.2

(2) 1

(3) 0.4

(4) 2

(5) 0.5

Solution:5

(5) The pattern is :

$$\frac{47-1}{2} = \frac{46}{2} = 23$$

$$\frac{23-1}{2} = \frac{22}{2} = 11$$

$$\frac{11-1}{2} = \frac{10}{2} = 5$$

$$\frac{5-1}{2} = \frac{4}{2} = 2$$

$$\frac{2-1}{2} = \frac{1}{2} = \boxed{0.5}$$

34. 1 2 6 21 88 ?

(1) 539

(2) 398

(3) 216

(4) 445

(5) 615

Solution:4

(4) The pattern is :

$$1 \times 1 + 1 = 1 + 1 = 2$$

$$2 \times 2 + 2 = 4 + 2 = 6$$

$$6 \times 3 + 3 = 18 + 3 = 21$$

$$21 \times 4 + 4 = 84 + 4 = 88$$

$$88 \times 5 + 5 = 440 + 5 = \boxed{445}$$

35. 300 298 307 279 344 ?

(1) 265

(2) 218

(3) 253

(4) 289

(5) 298

Solution:2

(2) The pattern is :

$$300 - 2 (= 1 + 1^3) = 298$$

$$298 + 9 (= 1 + 2^3) = 307$$

$$307 - 28 (= 1 + 3^3) = 279$$

$$279 + 65 (= 1 + 4^3) = 344$$

$$344 - 126 (= 1 + 5^3) = \boxed{218}$$

REASONING

Directions (1-5) : In each of the following questions, two or three statements followed by two Conclusions numbered I and II have been given. You have to take the given Statements to be true even if they seem to be at variance from the commonly known facts and then decide which of /the given Conclusions logically follows from the given statements disregarding commonly known facts.

Give answer (1) if both the Conclusion I and Conclusion II follow

Give answer (2) if either Conclusion I or Conclusion II follows

Give answer (3) if neither Conclusion I nor Conclusion II follows

Give answer (4) if only Conclusion I follows

Give answer (5) if only Conclusion II follows

(1-2) : Statements

All calls are mails.

Some mails are posts.

Some posts are letters.

1. Conclusions

I. All posts being calls is a possibility.

II. No letter is a mail.

Solution:4

Q. No 1 – 5.

(i) All calls are mails → Universal Affirmative (A-type).

(ii) Some mails are posts → Particular Affirmative (I-type).

(iii) No road is underpass → Universal Negative (E-type).

(iv) Some roads are not underpasses → Particular Negative (O-type).

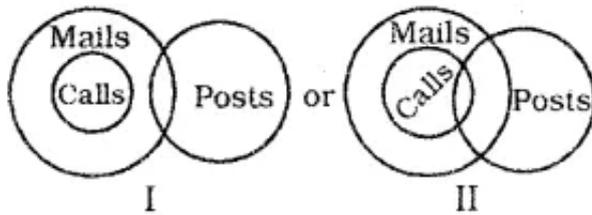
1.- 2.

All calls are mails.

Some mails are posts.

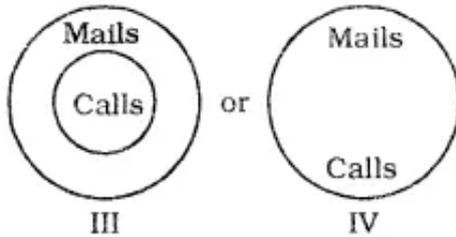
A + I \Rightarrow No Conclusion

Venn Diagram Method :

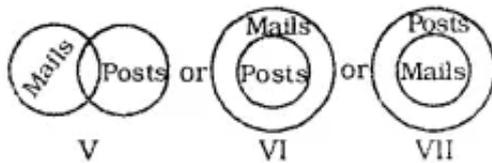


1.

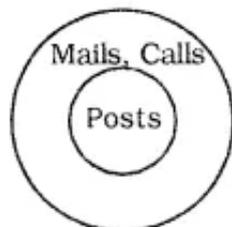
(4) Venn diagrams of "All calls are mails" :



Venn diagrams of "Some mails are posts" :



After combining the venn diagrams IV and VI, we get :



Therefore, Conclusion I follows.

2. Conclusions

- I. All mails are calls.
- II. No call is a letter.

Solution:3

(3) Neither Conclusion I nor Conclusion II follows.

3. Statements

Some vehicles are cars. Some cars are trucks. All trucks are sedans.

Conclusions

I. All vehicles being sedans is a possibility.

II. At least some cars are sedans.

Solution:1

(1) Some cars are trucks.

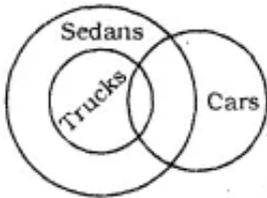
All trucks  are sedans.

I + A \Rightarrow I - type of Conclusion

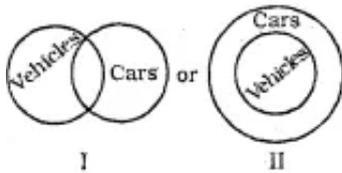
"Some cars are sedans."

This is Conclusion II

Venn Diagram Method :



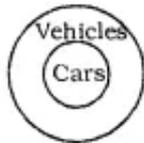
Venn diagrams of "Some vehicles are cars" :



I

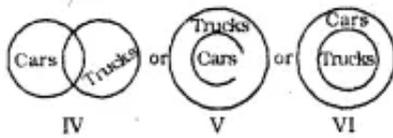
II

or

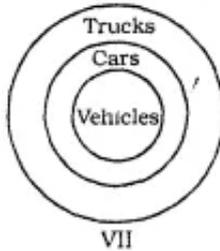


III

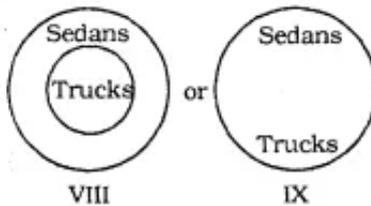
Venn diagrams of "Some cars are trucks" :



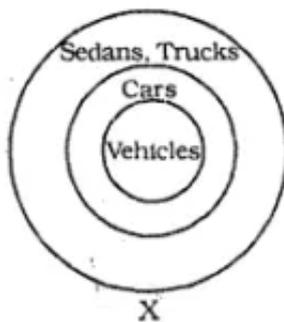
After combining the venn diagrams II and V, we get :



Venn diagrams of "All trucks are sedans" :



After combining the venn diagrams VII and IX, we get :



Therefore, all vehicles being sedans is a possibility. Thus, Conclusion I also follows.

4. Statements

Some bridges are roads. No road is underpass.

Conclusions

- I. Some bridges are underpasses.
- II. No bridge is an underpass.

Solution:2

(2) Some bridges are roads.

No road is underpass.

$I + E \Rightarrow O$ - type of Conclusion

"Some bridges are not underpasses".

Conclusion I and Conclusion II form Complementary Pair. Therefore, either Conclusion I or Conclusion II follows.

5. Statements

No unit is a part. All parts are items. Some items are elements.

Conclusions

I. No unit is an element.

II. At least some units are items.

Solution:5

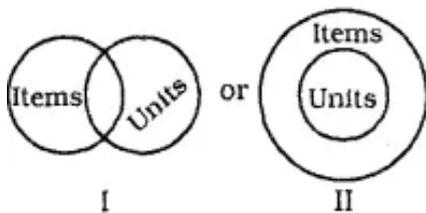
(5) No unit is a part.

All parts are items.

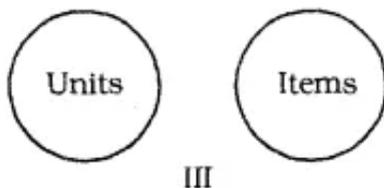
$E + A \Rightarrow O_1$ - type of Conclusion

"Some items are not units."

Venn diagrams of "Some items are not units" :



or



Venn diagrams I and II support the Conclusion II, but Venn diagram III contradicts it. However, 'at least' is mentioned in the Conclusion II, so there is possibility that the Conclusion is Valid.

Directions (6-10) : Study the following information carefully and answer the questions given below :

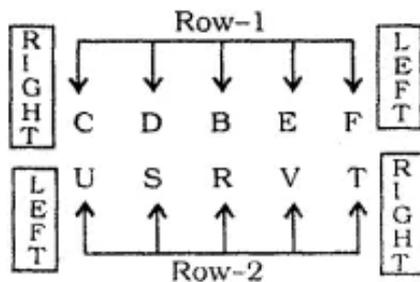
Ten persons are sitting in two parallel rows containing five persons each, in such a way that there is equal distance between adjacent persons. In row 1 — B, C, D, E and F are seated (not necessarily in the same order) and all of them are facing south. In row 2 — R, S, T, U and V are seated (not necessarily in the same order) and all of them are facing north. Therefore, in the given seating arrangement, each member seated in a row faces another member of the other row. R sits second to the right of U. The person facing R sits to the immediate left of D. Only one person sits between D and E. E does not sit at an extreme end of the line. The person facing E is an immediate neighbour of T. S sits third to the left of T. F is not an immediate neighbour of D. B does not face U.

6. Who amongst the following is facing V ?

- (1) F
- (2) D
- (3) C
- (4) B
- (5) E

Solution:5

Q.No. 6 – 10



6.

(5) E is facing V.

7. Who amongst the following is facing C ?

- (1) T
- (2) S
- (3) V
- (4) U
- (5) R

Solution:4

(4) U is facing C.

8. What is the position of D with respect to F ?

- (1) Immediate left
- (2) Second to the left
- (3) Third to the right
- (4) Immediate right
- (5) Second to the right

Solution:3

(3) D is sitting third to the right of F.

9. Which of the following statements is true regarding B?

- (1) None of the given statements is true
- (2) C sits second to the right of B
- (3) B sits at an extreme end of the row
- (4) B faces one of the immediate neighbours of T
- (5) Only two persons sit between B and F

Solution:2

(2) B sits exactly in the middle of the line.

B faces R. R is an immediate neighbour of both S and V. Only E sits between B and F.

10. Four of the following five are alike in a tertian way based on the given arrangement and hence form a group. Which one of the following does not belong to that group ?

- (1) RU
- (2) SR
- (3) VT
- (4) EB
- (5) DC

Solution:1

(1) R sits second to the right of U. S sits to the immediate left of R V sits to the immediate left of T. E sits to the immediate left of B. D sits to the immediate left of C.

Directions (11-15) : Study the following information carefully and answer the questions given below :

In a certain code language, 'paint your house red' is written as `ri fm ew cu'

`gate of red colour' is written as 'lb ew op sa'
 'house of your choice' is written as 'sa cu ri nk'
 `gate with red paint' is written 'gy op ew fm'
 (All codes are two letter codes only)

11. What is the code for 'red' in the given code language ?

- (1) Other than those given as options
- (2) sa
- (3) gfr'
- (4) ew
- (5) fm

Solution:4
Q.No.11 - 15

11.
 (4) red ⇒ ew

12. What maybe the possible code for 'gate crash' in the given code language ?

- (1) jx op
- (2) ri op
- (3) lb jx
- (4) op lb
- (5) jx ri

Solution:1
 (1) gate ⇒ op
 The code for 'crash' may be 'jx'.

13. In the given code language, what does the code 'cu' stand for ?

- (1) paint
- (2) either 'of' or 'colour'
- (3) choice

(4) with

(5) either 'house' or 'your'

Solution:5

(5) 'cu' stands for either 'house' or 'your'.

14. What is the code for 'paint' in the given code language ?

(1) gy

(2) fm

(3) sa

(4) op

(5) ri

Solution:2

(2) paint \Rightarrow fm

15. If 'colour with canvas' is coded as 'hv lb gy' in the given code language, then what is the code for 'canvas of choice'?

(1) hv nk ew

(2) ri sa nk

(3) nk hv sa

(4) sa ew hv

(5) sa ri hv

Solution:3

(3) colour \Rightarrow lb

with \Rightarrow gy

canvas \Rightarrow hv

Therefore,

canvas \Rightarrow hv

of \Rightarrow sa

choice \Rightarrow nk

Directions (16-18) : Study, the following information carefully and answer the questions given below :

Each of the six buildings — E, F, G, H, I and J — has different number of floors.

Only three buildings have more number of floors than J. G has more number of floors than I but less than E. I has more number of floors than J. F does not have

the least number of floors. The building having least number of floors has 5 floors. The building having third highest number of floors has 26 floors. F has 14 floors less than the number of floors in I.

16. If the number of floors in building G is less than 38 and is an odd number which is di-

visible by 3 but not 7, how many floors does G have ?

(1) 15

(2) 35

(3) 9

(4) 27

(5) 29

Solution:4

Q.No16 - 18

$\square, \square, \square > J > \square, \square$

$E > G > I$

$E > G > I > J > \square, \square$

$E > G > I > J > F > H$

$\downarrow \qquad \qquad \downarrow$
 26 Floors 5 Floors

F has $26 - 14 = 12$ floors

(4) G has second highest number of floors. ;The probable number of floors G has = 27, 30. 33 27 and 33 are odd numbers and both are divisible by 3. 27 is given as an option.

17. Which of the following buildings has the second highest number of floors ?

(1) I

(2) F

(3) J

(4) H

(5) G

Solution:5

(5) G has the second highest number of floors.

18. How many floors does building J possibly have ?

(a) 22

- (2) 5
- (3) 11
- (4) 35
- (5) 12

Solution:1

(1) J must have more than 12 but less than 26 floors.

Directions (19-20) : Study the following information carefully and answer the questions given below :

K is the brother of J. J has only one daughter. J is the mother of L. L is the sister of T. B is the father of T. T is married to R.

19. How is J related to R ?
- (1) Cannot be determined
 - (2) Sister-in-law
 - (3) Mother
 - (4) Aunt
 - (5) Mother-in-law

Solution:5

Q. No. 19 – 20

J is the sister of K. L is the daughter of J and B. T is the son of J and B. T is the husband of R.

19.

(5) R is the wife of T. J is the mother of T. Therefore, J is the mother-in-law of R.

20. How is T related to K ?
- (1) Niece
 - (2) Cannot be determined
 - (3) Nephew
 - (4) Son
 - (5) Daughter

Solution:3

(3) K is the brother of J. T is the son of J. J is the mother of T. Therefore, T is nephew of K.

Directions (21-25) Study the following information carefully and answer the questions given below :

Seven persons namely B, C, D, E, F, G and H have to attend a workshop but not necessarily in the same order, in seven different (months of the same year) namely January, March, April, July, August, September and December. Each of them also likes a different company namely HTC, Nokia, Samsung, Blackberry, TCS, Infosys and Godrej but not necessarily in the same order. The one who likes TCS will attend a workshop in the month which has less than 31 days. Only one person will attend a workshop between the one who likes TCS and

B. The one who likes HTC will attend a workshop immediately before B. Only three persons will attend a workshop between the one who likes TCS and the one who likes Nokia. H will attend a workshop immediately after B. Only three persons will attend a workshop between H and G. The one who likes Infosys will attend a workshop immediately before G. The one who likes Samsung will attend a workshop immediately before the one who likes Godrej. E will attend a workshop immediately after the one who likes Godrej. C will attend a workshop in a month which has only 30 days. F does not like HTC.

21. How many persons will attend a workshop between the months in which G and D will attend a workshop ?

- (1) Two
- (2) Three
- (3) One
- (4) More than three
- (5) None

Solution:3

Q. No . 21 – 25

Month	Person	Company
January	F	Infosys
March	G	Blackberry
April	C	TCS
July	D	HTC
August	B	Samsung
September	H	Godrej
December	E	Nokia

∴(3) G will attend workshop in Marc & D will attend workshop in July. Only C will attend workshop between G and D.

22. As per the given arrangement, G is related to HTC and B is related to Nokia

following a certain pattern, which of the following is D related to following the same pattern ?

- (1) Samsung
- (2) Infosys
- (3) TCS
- (4) HTC
- (5) Godrej

Solution:5

*(5) HTC is liked by the person who will attend workshop second after G.
Similarly, Nokia is liked by the person who will attend workshop second after B.
Godrej is liked by the person who will attend workshop second after D.*

23. Which of the following represents the month in which F will attend a workshop ?

- (1) March
- (2) January
- (3) December
- (4) April
- (5) Cannot be determined

Solution:2

(2) F will attend workshop in January.

24. Which of the following represents the persons who will attend a workshop in March and December respectively ?

- (1) G, E
- (2) F, B
- (3) F, E
- (4) F, H
- (5) G, H

Solution:1

(1) G will attend workshop in March and E in December.

25. Which of the following companies does G like ?

- (1) Samsung

- (2) HTC
- (3) TCS
- (4) Blackberry
- (5) Nokia

Solution:4

(4) G likes Blackberry.

Directions (26-30) : In each of the following questions, relationship between different elements is shown in the statements. The statements are followed by two Conclusions numbered I and II. Study the Conclusions based on the given statements and mark the appropriate answer :

Give answer (1) if both the Conclusion I and Conclusion II are true

Give answer (2) if either Conclusion I or Conclusion II is true

Give answer (3) if neither Conclusion I nor Conclusion II is true

Give answer (4) if only Conclusion I is true

Give answer (5) if only Conclusion II is true

(26-27) : Statements

$P \leq L \leq A > N = K \geq S : C \geq A$

26. **Conclusions**

I. $L > K$

II. $P \leq S$

Solution:3

QNo. 26 - 27

$P \leq L \leq A > N = K \geq S$

$C \geq A$

$P \leq L \leq A \leq C$

26.

(3) Conclusions

I. $L > K$: Not True

II. $P \leq S$: Not True

27. **Conclusions**

I. $C > P$

II. $P = C$

Solution:2

(2) Conclusions

I. $C > P$: Not True

II. $P = C$: Not True

C is either greater than or equal to P. Therefore, either Conclusion I or Conclusion II is true.

28. Statements

$J > U \geq N = K \leq E < D$

Conclusions

I. $E \leq U$

II. $D > N$

Solution:5

(5) $J > U \geq N = K \leq E < D$

Conclusions

I. $E \leq D$: Not True

II. $D > N$: True

(29-30) : Statements

$I < J \leq K \leq L > M \geq N$:

$K \leq B = S$

29. Conclusions

I. $N < L$

II. $L = N$

Solution:4

Q. No 29 – 30

$I < J \leq K \leq L > M \geq N$

$K \leq B = S$

$I < J \leq K \leq B = S$

29.

(4) Conclusions

I. $N < L$: True

II. $L = N$: Not True

30. Conclusions

I. $I < S$

II. $J \leq B$

Solution:1

(1) **Conclusions**

I. $I < S$: True

II. $J \leq B$: True

Directions (31-35) : Study the following information carefully and answer the given questions : Eight persons, J, K, L, M, N, o, P and Q are sitting around a circular table facing the centre with equal distances between each other (but not necessarily in the same order). Each one of them is also related to N in some way or the other. K sits third to the left of N. Only one person sits between N and Q. N's sister sits to the immediate right of Q. Only two persons sit between N's sister and N's mother. J sits to the immediate right of N's mother.

P sits to the immediate right of M. N's brother sits third to the right of P. N's wife sits second to the left of N's brother. Only three persons sit between _N's wife and L. N's son sits second to the right of N's father. Only two persons sit between N's father and N's daughter.

31. Who amongst the following is the son of J ?

(1) M

(2) P

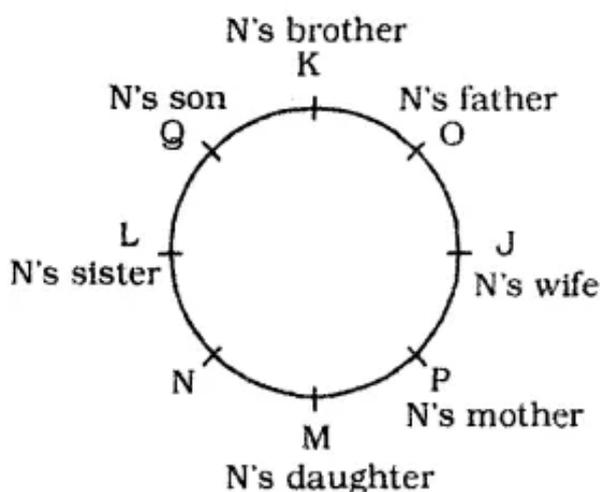
(3) K

(4) O

(5) Q

Solution:5

Q. No 31 - 35



31.

(5) *J is the wife of N. Q is the son of J and N.*

32. How many persons sit between N and K, when counted from the left of K ?
- (1) Five
 - (2) One
 - (3) Four
 - (4) None
 - (5) Three

Solution:3

(3) Four persons – O, J, P and M – sit between K and N when counted from the left of K.

33. Who sits to the immediate right of Q ?
- (1) N's sister
 - (2) N
 - (3) N's wife
 - (4) K
 - (5) J

Solution:1

(1) N's sister L sits to the immediate right of Q.

34. Which of the following statements is true with respect to the given information ?
- (1) All the given options are true
 - (2) P sits to the immediate left of J.
 - (3) N's mother sits to the immediate left of N.
 - (4) M is the mother-in-law of Q.
 - (5) N is an immediate neighbour of his father.

Solution:2

(2) N's mother P sits second to the right of N. M is sister of Q. N is an immediate neighbour of L (N's sister) and M (N's daughter).

35. How is J related to K ?

- (1) Sister
- (2) Uncle
- (3) Father
- (4) Sister-in-law
- (5) Daughter

Solution:4

(4) J is the wife of N. K is the brother of N. Therefore, J is the sister-in – law of K.
