IBPS PO PRELIMS - PRACTICE SET
Answers with Explanation

Quantitative Aptitude   ACHIEVERS In Focus

1. (c) Total number of male employees of five companies
$= 28000 \times 3/7 + 25000 \times 2/5 + 22000 \times 5/11 + 30000 \times 2/3 + 40000 \times 5/8$
$= 12000 + 10000 + 10000 + 20000 + 25000$
$= 77000$
Required average $= 77000/5 = 15400$

2. (b) Total number of female employees of five companies
$= 28000 \times 4/7 + 25000 \times 3/5 + 22000 \times 6/11 + 30000 \times 1/3 + 40000 \times 3/8$
$= 16000 + 15000 + 12000 + 10000 + 15000 = 68000$
Total number of female workers of five companies
$= 10000 \times 3/5 + 6000 \times 1/3 + 8000 \times 3/4 + 5000 \times 1/5 + 40000 \times 1/2$
$= 6000 + 2000 + 6000 + 1000 + 2000 = 17000$
Required ratio $= 17000 : 68000 = 1 : 4$

3. (e) Total number of male workers of five companies
$= 10000 \times 2/5 + 6000 \times 2/3 + 8000 \times 1/4 + 5000 \times 4/5 + 4000 \times 1/2$
$= 4000 + 4000 + 2000 + 4000 + 2000$
$= 16000$
Total workers of five companies
$= 10000 + 6000 + 8000 + 5000 + 4000 = 33000$
Required percentage
$= 16000/33000 \times 100 = 48.48\% \approx 48\%$

4. (d) Female employees of company D
$= 30000 \times 1/3 = 10000$ ACHIEVERS In Focus
Female workers of company D
$= 5000 \times 1/5 = 1000$
Required difference $= 10000 - 1000 = 9000$

5. (d)

Company	Total workers	Male to female ratio (workers)	Number of workers	
			Male	**Female**
A	10000	2 : 3	4000	6000
B	6000	2 : 1	4000	2000
C	8000	1 : 3	2000	6000
D	5000	4 : 1	4000	1000
E	4000	1 : 1	2000	2000
			16000	17000

Total number of female workers of five companies
$= 10000 \times 3/5 + 6000 \times 1/3 + 8000 \times 3/4 + 5000 \times 1/5 + 4000 \times 1/2$

$= 6000 + 2000 + 6000 + 1000 + 2000$
$= 17000$
Total number of male workers of five companies
$= 10000 \times 2/5 + 6000 \times 2/3 + 8000 \times 1/4 + 5000 \times 4/5 + 4000 \times 1/2$
$= 4000 + 4000 + 2000 + 4000 + 2000$
$= 16000$
Required percentage $= (17000 - 16000)/16000 \times 100$
$= (1000)/16000 \times 100$
$= 1/16 \times 100 = 6.25\%$

6. (c) I. $x^2 - 37x + 330 = 0$
$\Rightarrow x^2 - 15x - 22x + 330 = 0$
$\Rightarrow x(x - 15) - 22(x - 15) = 0$
$\Rightarrow (x - 15)(x - 22) = 0$ ACHIEVERS In Focus
$\Rightarrow x = 15, 22$
II. $y^2 - 28y + 195 = 0$
$\Rightarrow y^2 - 13y - 15y + 195 = 0$
$\Rightarrow y(y - 13) - 15(y - 13) = 0$
$\Rightarrow (y - 13)(y - 15) = 0$
$\Rightarrow y = 13, 15$

Value of x	Value of y	Relation
15	13	$x > y$
15	15	$x = y$
22	13	$x > y$
22	15	$x > y$

Hence, $x \geq y$

7. (d) I. $16x^2 - 32x + 15 = 0$
$\Rightarrow 16x^2 - 12x - 20x + 15 = 0$
$\Rightarrow 4x(4x - 3) - 5(4x - 3) = 0$
$\Rightarrow (4x - 3)(4x - 5) = 0$
Thus, $x = 3/4$ or $5/4$ ACHIEVERS In Focus
II. $16y^2 - 48y + 35 = 0$
$\Rightarrow 16y^2 - 20y - 28y + 35 = 0$
$\Rightarrow 4y(4y - 5) - 7(4y - 5) = 0$
$\Rightarrow (4y - 5)(4y - 7) = 0$
Thus, $y = 5/4$ or $7/4$
So, when $x = 3/4$ for $y = 5/4$, then $x < y$ and when $x = 3/4$ for $y = 7/4$ then $x < y$
And when $x = 5/4$ for $y = 5/4$ then $x = y$ and when $x = 5/4$ for $y = 7/4$ then $x < y$
$\therefore x \leq y$

8. (b) I. $x^2 - 35x + 294 = 0$
$\Rightarrow x^2 - 21x - 14x + 294 = 0$ ACHIEVERS In Focus
$\Rightarrow x(x - 21) - 14(x - 21) = 0$
$\Rightarrow (x - 21)(x - 14) = 0$

$\Rightarrow$ x = 21, 14

II. $y^2 - 68y + 1140 = 0$

$\Rightarrow y^2 - 38y - 30y + 1140 = 0$

$\Rightarrow y(y - 38) - 30(y - 38) = 0$

$\Rightarrow (y - 38)(y - 30) = 0 \Rightarrow y = 38, 30$

Value of x	Value of y	Relation
21	38	x < y
21	30	x < y
14	38	x < y
14	30	x < y

Hence, x < y

9. (d) I. $x^2 - 12x + 35 = 0$

$\Rightarrow x^2 - 5x - 7x + 35 = 0$

$\Rightarrow (x - 5)(x - 7) = 0$

$\Rightarrow$ x = 5, 7

II. $y^2 - 25y + 126 = 0$

$\Rightarrow y^2 - 7y - 18y + 126 = 0$

$\Rightarrow (y - 7)(y - 18) = 0$

$\Rightarrow$ y = 7, 18

Value of x	Value of y	Relation
5	7	x < y
5	18	x < y
7	7	x = y
7	18	x < y

Hence, x ≤ y

10. (a) I. $25x^2 - 165x + 252 = 0$

$\Rightarrow 25x^2 - 60x - 105x + 252 = 0$

$\Rightarrow 5x(5x - 12) - 21(5x - 12) = 0$

$\Rightarrow$ x = 12/5, 21/5

$\Rightarrow$ x = 2.4, 4.2

II. $36y^2 - 144y + 143 = 0$

$\Rightarrow 36y^2 - 78y - 66y + 143 = 0$

$\Rightarrow 6y(6y - 13) - 11(6y - 13) = 0$

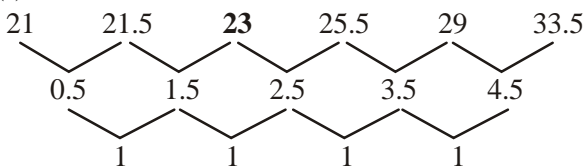$\Rightarrow (6y - 13)(6y - 11) = 0$

$\Rightarrow$ y = 13/6, 11/6

$\Rightarrow$ y = 2.16, 1.83

Value of x	Value of y	Relation
2.4	2.16	x > y
2.4	1.83	x > y
4.2	2.16	x > y
4.2	1.83	x > y

∴ x > y

11. (c)

21		21.5		**23**		25.5		29		33.5
	0.5		1.5		2.5		3.5		4.5	
		1		1		1		1		

12. (b) The series follows the following pattern

$144 \times 0.5 = 72$

$72 \times 1.5 = 108$

$108 \times 2.5 = 270$

$270 \times 3.5 = $ **945**

$945 \times 4.5 = 4252.5$

∴ The required term in the series will be 945

13. (b) The given series.

$\Rightarrow 9 \times 2 + 1 = 19$

$\Rightarrow 19 \times 2 + 2 = 40$

$\Rightarrow 40 \times 2 + 3 = 83$

$\Rightarrow 83 \times 2 + 4 = $ **170** = ?

$\Rightarrow 170 \times 2 + 5 = 345$

$\Rightarrow 345 \times 2 + 6 = 696$

14. (d) As per the series given in the question, it is clear that it follows a pattern of

$\Rightarrow 17 \times 2 + 1 = 35$

$\Rightarrow 35 \times 3 + 1 = 106$

$\Rightarrow$ **106 × 4 + 1 = 425**

$\Rightarrow 425 \times 5 + 1 = 2126$

∴ Considering the above mention pattern, the missing term in the series is 425.

15. (c) The pattern of the number series is

$7 \times 2 - 1 = 13$

$13 \times 2 - 1 = $ **25**

$25 \times 2 - 1 = 49$

$49 \times 2 - 1 = 97$

$97 \times 2 - 1 = 193$

Hence 25 will come in place of question mark

16. (b) Total work = 100 units [LCM of 25 and 20]
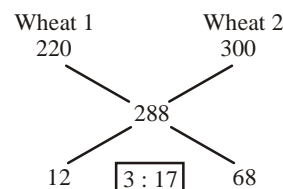
Efficiency of A = 4 units/day

Efficiency of B = 5 units/day

Work done by A in 7 days = $4 \times 7 = 28$ units

Remaining work = 100 – 28 = 72 units

∴ Time taken by A and B to complete remaing work

= 72/(4 + 5) = 72/9 = 8 days

Hence, total days = 7 + 8 = 15 days

17. (e) CP = $360 \times \dfrac{100}{125} = 288$

Now by the method of mixture of allegation

```
Wheat 1            Wheat 2
  220                300
       \          /
          288
       /          \
   12      3 : 17      68
```

$\Rightarrow 3 : 17$

∴ Required ratio is 3 : 17

18. (d) Let the present ages of Ritik and Monis be R and M respectively.

According to question, average of present age of Ritik and Monis is 21 years.

$\Rightarrow (R + M) / 2 = 21$

$\Rightarrow R + M = 42 \longrightarrow (1)$

After 3 years, the ratio of ages of Ritik and Monis will be 7 : 5

The ages of Ritik and Monis after 3 years be (R + 3) and (M + 3) respectively

$\Rightarrow (R + 3) / (M + 3) = 7 / 5$

$\Rightarrow 5R - 7M = 6 \longrightarrow (2)$

On solving Equation (a) and (b) we get

$\Rightarrow M = 17$ and $R = 25$ years

$\Rightarrow$ Age of Ritik after 4 years = 25 + 4 = 29 years

Age of Ritik after 4 years from present is 29 years.

19. (a) Let the fruits bought by the vendor be 100x

20% were rotten and was thrown away by the vendor

Rotten fruits = (20/100) × 100x = 20x

Remaining fruits = (80/100) × 100x = 80x

75% of the remaing fruits was solid

Fruits sold = (75/100) × 80x = 60x

Remaing fruits = 80x – 60x = 20x

Now, 50% of the remaining fruits is used to make juice

Fruits used for juice = (50/100) × 20x = 10x

The difference between the number of fruits he used to make juice and number of rotten fruits is 48

According to question

$\Rightarrow 20x – 10x = 48$

$\Rightarrow 10x = 48$ ∴ x = 4.8

Total fruits bought by the vendor = 4.8 × 100 = 480

20. (a) We using the formula for 2 years, if the principal is same in both SI and CI

Difference = Principal{Rate/100}²

Difference = 10000 × (10/100)²

Difference = Rs. 100

Difference between amounts Scheme A and B is Rs. 100

21. (a) Let the distance travelled be x km

12 = [x/(10 – 5)] + [x/(10 + 5)]

$\Rightarrow 12 = (x/5) + (x/15)$

$\Rightarrow x = 45$ km

The distance between P and Q is 45 km.

22. (a) According to the question,

$\Rightarrow$ The present age of Rohan = 8 + 10 = 18 yrs

$\Rightarrow$ The present age of Rajiv = 18 – 3 = 15 yrs

Similarly

The present age of sister = 10 yrs

$\Rightarrow$ Present age of Father = 18 + 15 + 10 = 43 yrs

Sum of Present age of Parents = 84 years

$\Rightarrow$ Present age of Mother = 84 – 43 = 41 yrs

The required difference = 43 – 41 = 2 yrs

23. (c) Mass of steel in 1st alloy = 0.5 × 15 = 7.5 kg

Mass of steel in 2nd allow = 0.75 ×10 = 7.5 kg

20% steel is reduced = 20% of the (7.5 + 7.5) kg

= 0.20 ×15 = 3 kg

Remaining steel = 12 kg

Total alloy = 25 – 3 = 22 kg

The required percentage of steel = (12/22) × 100 = 55%

The total steel is present in the third alloy is 55%

24. (c) Let be 1 gram = 1 rupees

Let Cost price of 1 kg = Rs. 1000

The selling price of 700 gm at 10% loss = {1000(100 – 10)}/100

The selling price of 700 gm = Rs 900

Cost price of 700 gm = Rs 700

Profit or Gain % = {(900 – 700)/700} × 100

= (200/700) × 100 = 28.57%

The profit percentage of fruit seller is 28.57%

25. (e) Total number of cookies = 10 + 5 + 8

$\Rightarrow$ Initially total number of cookies = 23

$\Rightarrow$ Final number of cookies = 9 + 7 + 8

$\Rightarrow$ Total number of cookies = 24

$\Rightarrow$ Probability of it being chocolate = 9/24

$\Rightarrow P(E1) = 3/8$

$\Rightarrow$ Probability of picking orange cookie = 8/24

$\Rightarrow P(E2) = 1/3$

$\Rightarrow P(E) = (3/8) + (1/3)$

$\Rightarrow P(E) = 17/24$

Probability of cookie being chocolate or orange is 17/24

26. (a) $\sqrt{63.89} + \sqrt{80.89} + ? = 24.99\%$ of 699.99

On Approximating values in the given expression

$\sqrt{64} + \sqrt{81} + ? = 25\%$ of 700

8 + 9 + ? = (25/100) × 700

17 + ? = 25 × 7

? = 175 – 17 = 158

The approximate value of '?' is 158

27. (d) 5.01% of ? = (5.98)² – (2.02)² – 2.01

On approximating the given values, we get

5% of ? = 6² – 2² – 2

(5/100) × ? = 36 – 4 – 2

(1/20) × ? = 30

? = 30 × 20 = 600

? = 600

28. (e) $\sqrt{169.05} \times 2.97 - 12.99 - 1.98 = ?$

On Approximating the values in the given expression

$\sqrt{169} \times 3 \div 13 - 2 = ?$

$13 \times 3 \div 13 - 2 = ?$

$13 \times (3 / 13) - 2 = ?$

? = 3 – 2 = 1

∴ ? = 1

29. (d) 11.98% of 200.33 = ?% of 199.99 + 25.02% of 16.06

On approxiamating the given values, we get

$\Rightarrow$ 12% of 200 = ?% of 200 + 25% of 16

$\Rightarrow (12/100) \times 200 = (?/100) \times 200 + (25/100) \times 16$

$\Rightarrow 24 = (2 \times ?) + 4$

$\Rightarrow 2 \times ? = 24 - 4$ ACHIEVERS In Focus

$\Rightarrow ? = 20/2 = 10$

? = 10

30. (b) $48.12 \div 23.7 + \sqrt{16} \times 1.005^2 = ?- 30$

On approximating the values of the given equation

$\Rightarrow 48 \div 24 + 4 \times 1 = ? - 30$

$\Rightarrow 2 + 4 \times 1 = ? - 30$

$\Rightarrow 2 + 4 = ? - 30$

$\Rightarrow 6 = ? - 30$

$\Rightarrow ? = 30 + 6 = 36$

? = 36

31. (d) Total expenditure in all sectors in 2019 = 500 × 120/100 = 600 lakhs

Expenditure of Highways and Railways together in 2018 = (19 + 20)/100 × 500 = 195 lakhs

Required percentage = 195/600 × 100 = 32.5%

The required percentage of expenditure is 32.5%

32. (d) Expenditure for defence in 2018 = 15/100 × 500 = 75 lakhs

Expenditure for irrigation in 2018 = 10/100 × 500 = 50 lakhs

Total expenditure for defence and irrigation sectors in 2019 = 75 × 120/100 + 50 × 125/100

= 90 + 62.5 = 152.5 lakhs

Total expenditure for defence and irrigation sectors in 2019 is 152.5 lakhs.

33. (d) Central angle for expenditure of Railways = 20/100 × 360° = 72°

Central angle for expenditure of Power sector = 15/100 × 360° = 54°

Required central angle = 72° + 54° = 126°

Central angle for percentage expenditure of Railways and Power together is 126°

34. (c) Total expenditure in Shipyard and Railways together = (10% + 20%) × 500 = (30 × 5) lakhs

Average expenditure in Shipyard and Railways = (30 × 5)/2 = 75 lakhs

Total expenditure in defence and petroleum together = (15% + 11%) × 500 = (26 × 5) lakhs

Average expenditure in defence and petroleum = (26 × 5)/2 = 65 lakhs

Required difference = 75 – 65 = 10 Lakhs

The required average difference is 10 Lakhs.

35. (c) Total percentage expenditure in defence and petroleum together = 15% + 11% = 26%

Total percentage expenditure in power and irrigation together = 15% + 10% = 25%

Required ratio = [(26/100) ×500]/[(25/100) × 500]

ACHIEVERS In Focus   = 26/25

The required ratio of expenditure is 26 : 25

Reasoning Ability

(1-3):

Floor	Flat A	Flat B
3	T (Auckland)	Q (Lyon)
2	P (Kolkata)	S (Detroit)
1	U (Nagasaki)	R (Stockholm)

1. (a)
2. (b)
3. (c)

(4-6):

S   C R T M H   L

4. (a)
5. (c)
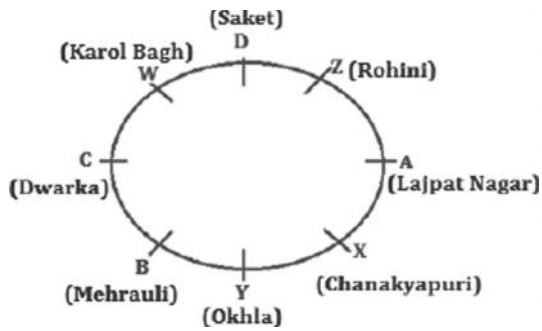6. (c)
7. (e)   8. (a)   ACHIEVERS In Focus
9. (d)

mirror glass ✗ fiber spectacles

10. (e)

Seiko Harmle Chumbak Opal

11. (a)

Bulova Titan Casio Ajanta
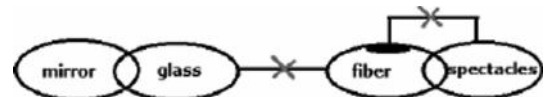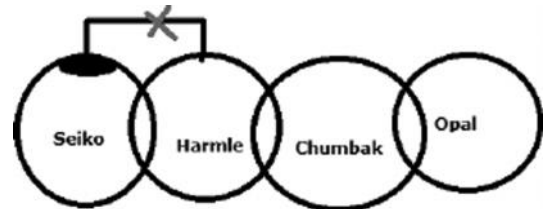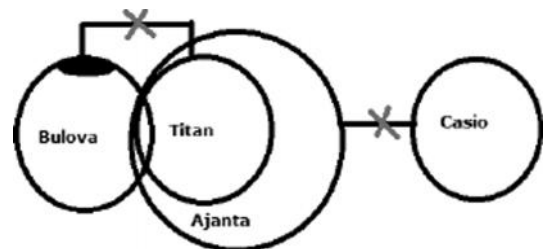
ACHIEVERS In Focus

(12-14):

12. (a)
13. (d)
14. (c)   ACHiEVERS In Focus

(15-16):

$$F>A>D, B>E>C$$

13cm.   4cm.

15. (c)
16. (b)

(17-19):

V   Z   T   W   X   S   Y   U
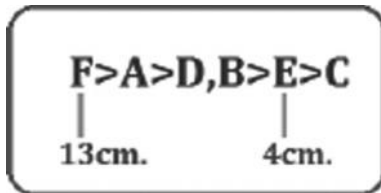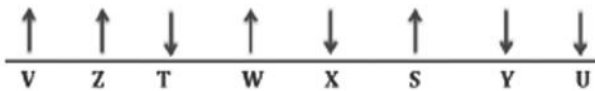
17. (b)
18. (d)
19. (b)   ACHiEVERS In Focus

(20-24):

Day	Employees	Department
Monday	M	HR
Tuesday	P	Security
Wednesday	Q	Administrative
Thursday	L	Security
Friday	N	Administrative
Saturday	R	HR
Sunday	O	Finance

20. (d)
21. (e)   ACHiEVERS In Focus
22. (a)
23. (b)
24. (b)

(25-27):

Word	Code
detail	gv
event	oc
year	st
of	tm
this	bi
awaited	da
revised	pu
great	rx
results / first	mk / nh

ACHiEVERS In Focus

25. (d)
26. (d)
27. (b)

(28-30):

T
R
X
Q
S
W
U
P
V

ACHiEVERS In Focus

28. (c)
29. (d)
30. (e)

(31-33):
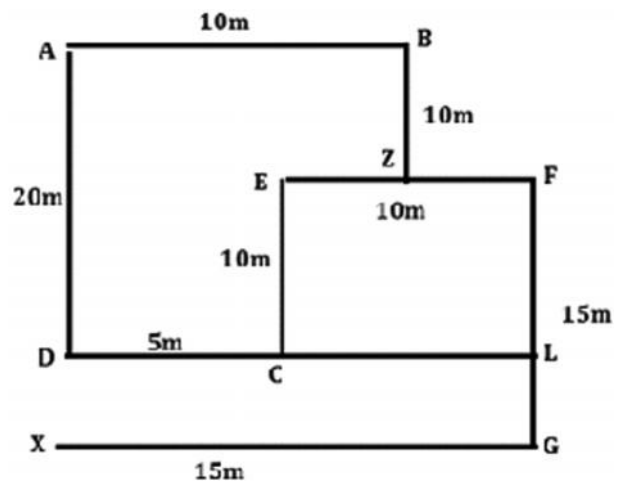
31. (a)   ACHiEVERS In Focus
32. (c)
33. (a)

34. (b)
35. (e)

English Language

1. (a) It can be interpreted from the first few lines of the passage that the BOJ's initial move was unexpected The monetary policy committee at the Bank of Japan (BOJ) will vote on whether to raise its overnight lending rate to 0. 25% or leave it at zero effect on global markets and both corporate and private borrowers. The rate hike is by no means guaranteed. In desperation, the BOJ reduced interest rates to zero. Hence, option 1 is the correct response.

2. (d) Refer to the last lines of the passage, 'His predecessor frequently claimed impotence, saying there was little a central bank could do to stoke an economy's fires once it had lowered rates to zero.' From these lines, you can easily infer that the central bank could do little to bring the economy up if the interest rates were lowered to 0%.

3. (a) • 'Jeopardy' refers to danger, trouble.

   • 'Progress' refers to develop towards an improved or more advanced condition.

   • 'Hibernation' means an extended period of remaining inactive or indoors.

   • 'Boom' refers to a period in which something increases or develops very quickly.

   The entire passage is about the downfall of the Japanese economy. Hence, the answer can be easily concluded.

   Thus, 'Jeopardy' is the best suitable option.

4. (b)

5. (b)
6. (e)

7. (d)

8. (d) Thus only Option 4 can be correctly concluded from the passage as it says:

   'The Japanese believe in their workers' involvement early on in the decision-making process **and in feedback from employees**. And they probably listen better than we do.'

9. (e) • Meanings of the given options are :

   'Impractical' means 'not adapted for use or action; not sensible or realistic'.

   'Negative' means 'not optimistic; gloomy'.

   'Rigid' means 'not able to be changed or adapted'.

   'Cautious' means 'wary; aware'

   • All the given words have been used or implied by the author when **describing consensus management**. The author says: 'By its very nature, it's slow. It can never be daring. There can never be real accountability- or flexibility.'

   • By giving the example of Japan, the author tries to convey its impracticality.

   • Thus, all of the given options are correct.

10. (b) **'Emulate'** means imitate or copy

The author is talking about consensus management which he considers to be a myth and an impractical concept that can only be found in books but cannot be practised in reality.

He talks about how the Japanese make it seem like they practise it when in actuality they don't.

11. (a) When the author says: 'But you can bet that when the chips are down, the yen stops at the top guy's desk', he implies that when a difficult situation arises, the responsibility falls upon the person who is at the top/ who has the most authority'.

12. (a) The passage says: "About the only plus that I've been able to figure out is that consensus management means consistency of direction and objectives. And so much consistency can become faceless, and that's a problem too." Faceless means impersonal; anonymous; characterless and dull.

13. (c) The word anarchy means the absence of government and absolute freedom of the individual.

14. (b) let's look at the meaning of the given word and the marked option.

   Admirers: People who have particular regard for someone or something.

   Adherent: Someone who supports a particular party, person or set of ideas.

15. (e) The passage states: 'There were no corporations in the fifteenth century But there were families. There were city governments, provinces, and armies. There was the Church. All of them had, for lack of a better word, a pecking order.'

   All these authoritative figures which adhered to strict rules and regulations were the only way to 'steer clear of anarchy'.

(16-20):

The given paragraph is about **Microsoft's lack of innovation.**

Sentence **D** is the first sentence as it introduces the topic of the paragraph by mentioning Microsoft's lack of innovation as one of the key challenges that surfaced after SWOT analysis.

Sentence **F** is the second sentence as it continues **D** by explaining that Microsoft lacks innovation because all its products are influenced by the existing products of its competitors.

Sentence **B** is the third sentence as it continues **F** by giving an example of how Microsoft's Windows is influenced by Apple's Unix.

Sentence **C** is the fourth sentence as it continues **B** by mentioning **similarly** and giving another example of how Microsoft's office suite was influenced by Lotus and Word Perfect.

Sentence **E** is at the correct place so it's the fifth sentence explaining more oil how Microsoft's products in coming years became more similar to the already existing products.

Sentence **A** is the sixth sentence and it continues **E** by giving an example of how Microsoft's browser and search engine are similar to Netscape and Google respectively.

The correct sequence is **DFBCEA.**

16. (d)

17. (b)

18. (a)

19. (b)

20. (c)

21. (b) The passage is based on the Booker prize. In this line, The topic is introduced on which the prize is based. So, the only option is 2 that is according to the sense of the passage.

22. (b) For this blank, the only option is 2 that is connected with its previous phrases. All other options are out of context.

23. (d) In this line, the struggle of a man after his wife's demise is discussed. According to the sense option 4 is the right answer. Because it shows all the difficulties of the man.

24. (c) In this blank, we need to fill the sentence that tells about the two novels. And the only right answer is option 3 because it is describing it as historical fiction.

All other options are out of context.

25. (b) In this blank we need to disclose the writings of the person because the passage is about book and we have possessive

case just before the blank. According to this, option 2 is giving the name of the book with some details of it.

So, option 2 is the right answer.

26. (a) In this blank, we need to put the name of a book which is shortlisted for the Women's prize.

And the only option is 1 that is giving the name of the book.

All others can not connect with upcoming lines.

27. (a) In this blank, we need to fill the information of the first part of the book. And the only right option that fits in the blanks is option 1.

All others are irrelevant.

28. (b) In this blanks, the left sentence can be option 2 because it is telling about the subject on which writers discussed about in theirs works.

No other option is more suitable than this.

29. (a) In this blank, the shortlisted person needs to be filled. The word used before the blank is 'American novelists' so we have to give the name of these novelists.

So, the only option that is right is option 1

30. (e) There is no need to fill any sentence in this blanks. All the options are out of the context. And the blank here is irrelevant and unnecessary.

———★★★———