

IBPS PO PRELIM - PRACTICE SET

Answers with Explanation

Quantitative Aptitude

ACHIEVERS In Focus

1. (d) **Formula used :**

Average = Sum of Values/ Number of values

Calculation :

Boys present in the class on Monday = $80 - 70 = 10$

Boys present in the class on Tuesday = $75 - 35 = 40$

Boys present in the class on Wednesday = $95 - 65 = 30$

Boys present in the class on Thursday = $60 - 45 = 15$

Boys present in the class on Friday = $85 - 55 = 30$

Average boys present in the class = $(10 + 40 + 30 + 15 + 30)/5 = 25$

∴ The average boys present in the class from Monday to Friday is 25.

2. (a) Total number of students present in the class on Saturday = 25% more total student present on Thursday

Ratio between boys and girls = 2: 3

Formula used:

Percentage = $(\text{Value}/\text{total Value}) \times 100$ ACHIEVERS In Focus

Calculation:

Total number of students present in the class on Saturday = 125% of 60 = 75

Girls present in the class on Saturday = $75 \times 3/5 = 45$

∴ The number of girls present in the class on Saturday is 45.

3. (d) Boys present in the class on Monday = 10

Boys present in the class on Tuesday = 40

Boys present in the class on Wednesday = 30

Formula used:

Percentage = $(\text{Value}/\text{Total Value}) \times 100$

Calculation:

Total number of boys present in the class on Monday and Tuesday = $10 + 40 = 50$

⇒ Required percentage = $(50 - 30)/30 \times 100 = 66.66\%$

∴ The required approximate percentage is 66%.

4. (d) Boys present in the class on Tuesday = 40

Boys present in the class on Wednesday = 30

Girls present in the class on Thursday = 45

Formula used:

Ratio = Boys present on Tuesday and Wednesday: Girls present in the class on Thursday.

Calculation:

Total number of boys present on Tuesday and Wednesday = $40 + 30 = 70$

Required ratio = Boys present on Tuesday and Wednesday: Girls present in the class on Thursday

⇒ $70 : 45 = 14 : 9$

∴ Required ratio of boys and girls present in the class is 14 : 9.

5. (c) Boys present in the class on Thursday = 15

Boys present in the class on Friday = 30

Girls present in the class on Thursday = 45

Girls present in the class on Friday = 55

Formula used:

Difference = total number of girls - total number of boys

Calculation:

Total number of boys present on Thursday and Friday = $15 + 30 = 45$

Total number of girls present on Thursday and Friday = $45 + 55 = 100$

Required difference = $100 - 45 = 55$

∴ the difference between the total number of girls and boys present on Thursday and Friday is 55.

6. (d) **Calculation:**

The series follows the following pattern,

$$32 + 1^3 = 33$$

$$33 - 2^3 = 25$$

$$25 + 3^3 = 52$$

$$52 - 4^3 = -12 \neq 12$$

$$-12 + 5^3 = 113$$

Since -12 will come in place of 12.

∴ The required wrong number will be 12.

7. (e) **Calculation:**

The series follows the following pattern,

$$\begin{array}{ccccccccc} 37 & & 39 & & 44 & & 52 & & 63 & & 77 \\ \uparrow & & \uparrow & & \uparrow & & \uparrow & & \uparrow & & \uparrow \\ +2 & & +5 & & +8 & & +11 & & +14 & & \\ \uparrow & & \uparrow & & \uparrow & & \uparrow & & \uparrow & & \\ +3 & & +3 & & +3 & & +3 & & & & \end{array}$$

Since 63 will come in place of 61.

∴ The required wrong number will be 61.

8. (d) **Calculation:**

The series follows the following pattern,

$$24 + 7 = 31$$

$$31 - 14 = 17$$

$$17 + 21 = 38$$

$$38 - 28 = 10 \neq 20$$

$$10 + 35 = 45$$

Since 10 will come in place of 20.

∴ The required wrong number will be 20.

9. (c) The series follows the following pattern:

$$254 - 36 = 218$$

$$218 - 25 = 193$$

$$193 - 16 = 177$$

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$$177 - 9 = 168$$

$$168 - 4 = 164$$

∴ The wrong term in the series is 175

10. (d) The series follows the following pattern

$$2 \times 5 - 1 = 9$$

$$9 \times 4 - 2 = 34$$

$$34 \times 3 - 3 = 99$$

$$99 \times 2 - 4 = 194$$

$$194 \times 1 - 5 = 189$$

∴ The wrong term in the series is 184

11. (e) P invests = 16000

$$Q \text{ invests} = 20000$$

$$R \text{ invests} = 24000$$

$$\text{Profit ratio} = 48 : 35 : 42$$

Calculation:

$$P = 16000 \times 12$$

$$Q = 20000 \times (12 - x)$$

$$R = 24000 \times (12 - x)$$

According to the question; we get

$$\Rightarrow (16000 \times 12) / [20000 \times (12 - x)] = 48/35$$

$$\Rightarrow 16000 \times 12 \times 35 = 20000 \times 48 \times (12 - x)$$

$$\Rightarrow 7 = 12 - x$$

$$\Rightarrow x = 12 - 7$$

$$\Rightarrow x = 5$$

∴ The value of x is 5 months.

12. (c) $(10 - 8)\% = 2\%$ of marked price = Rs. 3,630

$$\Rightarrow 1\% \text{ of marked price} = 3,630/2 = \text{Rs. } 1,815$$

$$\Rightarrow 100\% \text{ of marked price} = \text{Rs. } 1,815 \times 100 \\ = \text{Rs. } 1,81,500$$

$$\therefore \text{CP} = \text{Rs. } 1,81,500 - \text{Rs. } 16,500$$

$$= \text{Rs. } 1,65,000$$

13. (a) **Calculation:**

Total mobile phones in the box are 35

The average weight of 12 mobile phones = 50 grams

Then the total weight of 12 mobile phones

$$\Rightarrow 12 \times 50 = 600 \text{ grams}$$

The average weight of the next 11 mobile phones is 40 grams.

Then, the total weight of 11 mobile phones

$$\Rightarrow 11 \times 40 = 440 \text{ grams}$$

Remaining number of mobile phones –

$$\Rightarrow 35 - 12 - 11 = 12$$

The average weight of the remaining mobile phones is 45 grams.

Then, the total weight of the remaining mobile phones

$$\Rightarrow 12 \times 45 = 540 \text{ grams}$$

Now the total weight of 35 mobile phones

$$\Rightarrow 600 + 440 + 540 = 1580 \text{ grams}$$

Now to find the average weight of 35 mobile phones

$$\text{Average} = \text{Total weight} / \text{Total numbers of an item}$$

$$\Rightarrow 1580 / 35 = 45.12 \text{ grams}$$

∴ the average weight of all mobile phones is 45 grams.

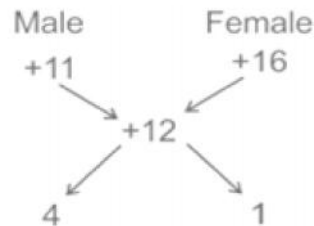
14. (d) **Calculation:**

The overall percentage increase in population from 2019 to 2020 = $\{(1,68,000 - 1,50,000)/1,50,000\} \times 100$

$$\Rightarrow (18,000/1,50,000) \times 100$$

$$\Rightarrow 12\%$$

By alligation method.



Thus, the ratio of the population of male and female in 2019 = 4 : 1

Now, let the population of male and female in 2019 be $4x$ and x respectively.

According to the question,

$$4x + x = 1,50,000$$

$$\Rightarrow 5x = 1,50,000$$

$$\Rightarrow x = 30,000$$

$$\Rightarrow 4x = 1,20,000$$

∴ The population of male in that city in 2019 was 1,20,000.

15. (d) According to the question, we get

$$CI = SI$$

$$\Rightarrow P \{[1 + (R/100)]^T - 1\} = PRT/100$$

$$\Rightarrow P \{[1 + 10/100]^2 - 1\} = [(6100 - P)4 \times 10]/100$$

$$\Rightarrow P \times 21/100 = [(6100 - P) \times 4 \times 10]/100$$

$$\Rightarrow 21P = 6100 \times 40 - 40P$$

$$\Rightarrow 61P = 6100 \times 40$$

$$\Rightarrow P = 4000$$

∴ The amount invested in scheme A is Rs. 4000.

16. (e) Given expression is

$$64.99\% \text{ of } 399.99 + \sqrt[3]{1727.99} - 15.99^2 = ?^2$$

$$\Rightarrow ? 65\% \text{ of } 400 + \sqrt[3]{1728} - 16^2 = ?^2$$

$$\Rightarrow 260 + 12 - 256 = ?^2$$

$$\Rightarrow 272 - 256 = ?^2$$

$$\Rightarrow ?^2 = 16$$

$$\therefore ? = 4$$

17. (c) Given expression is

$$34.98\% \text{ of } 599.99 + 54.98\% \text{ of } 399.99 = ? + 19.87\% \text{ of } 749.98$$

$$\Rightarrow 35\% \text{ of } 600 + 55\% \text{ of } 400 = ? + 20\% \text{ of } 750$$

$$\Rightarrow 210 + 220 = ? + 150$$

$$\Rightarrow 430 = ? + 150$$

$$\therefore ? = 280$$

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18. (c) Given expression is

$$153.94 + 2.93^3 - 4.95^3 = 6.99^2 + 37.98 - ?$$

$$\Rightarrow 154 + 3^3 - 5^3 = 7^2 + 38 - ?$$

$$\Rightarrow 154 + 27 - 125 = 49 + 38 - ?$$

$$\Rightarrow 56 = 87 - ?$$

$$\therefore ? = 31$$

19. (d) Given expression is

$$(19.99)^2 \times [35.98 \times 24.04] \div (11.98 \times 1.98^2) = ?$$

$$\Rightarrow (20)^2 \times [36 \times 24] \div (12 \times 2^2) = ?$$

$$\Rightarrow 400 \times [36 \times 24] \div (12 \times 4) = ?$$

$$\Rightarrow 400 \times [864] \div (48) = ?$$

$$\Rightarrow 400 \times 18 = ?$$

$$\therefore ? = 7200$$

20. (d) Given expression is

$$\{6.99^2 - 1.98^2 - (11.11 \times 5.98 - 47.98)\} = ?^3$$

$$\Rightarrow \{7^2 - 2^2 - (11 \times 6 - 48)\} = ?^3$$

$$\Rightarrow \{49 - 4 - (11 \times 6 - 48)\} = ?^3$$

$$\Rightarrow \{45 - (66 - 48)\} = ?^3$$

$$\Rightarrow \{45 - 18\} = ?^3$$

$$\therefore ? = 3$$

21. (e) From I,

$$x^2 - 5x - 66 = 0$$

$$\Rightarrow x^2 - 11x + 6x - 66 = 0$$

$$\Rightarrow x(x - 11) + 6(x - 11) = 0$$

$$\Rightarrow (x + 6)(x - 11) = 0$$

$$\Rightarrow x = -6, 11$$

From II,

$$y^2 + 12y + 35 = 0$$

$$\Rightarrow y^2 + 5y + 7y + 35 = 0$$

$$\Rightarrow y(y + 5) + 7(y + 5) = 0$$

$$\Rightarrow (y + 5)(y + 7) = 0$$

$$\Rightarrow y = -5, -7$$

Comparison between x and y (via Tabulation):

Value of x	Value of y	Relation
-6	-5	$x < y$
-6	-7	$x > y$
11	-5	$x > y$
11	-7	$x > y$

\therefore The relationship between x and y cannot be established.

22. (e) From I,

$$4x^2 - 20x + 25 = 0$$

$$\Rightarrow 4x^2 - 10x - 10x + 25 = 0$$

$$\Rightarrow 2x(2x - 5) - 5(2x - 5) = 0$$

$$\Rightarrow (2x - 5)(2x - 5) = 0$$

Taking,

$$\Rightarrow 2x - 5 = 0 \text{ or } 2x - 5 = 0$$

$$\Rightarrow x = 5/2 \text{ or } x = 5/2$$

From II,

$$3y^2 - 23y + 30 = 0$$

$$\Rightarrow 3y^2 - 18y - 5y + 30 = 0$$

$$\Rightarrow 3y(y - 6) - 5(y - 6) = 0$$

$$\Rightarrow (y - 6)(3y - 5) = 0$$

Taking,

$$\Rightarrow y - 6 = 0 \text{ or } 3y - 5 = 0$$

$$\Rightarrow y = 6 \text{ or } y = 5/3$$

Comparison between x and y (via Tabulation):

x	y	Relation
5/2	6	$x < y$
5/2	5/3	$x > y$

\therefore After comparing x and y both, No relation in x and y or $x = y$.

23. (a) From I,

$$5x^2 + 26x + 33 = 0$$

$$\Rightarrow 5x^2 + 15x + 11x + 33 = 0$$

$$\Rightarrow 5x(x + 3) + 11(x + 3) = 0$$

$$\Rightarrow (x + 3)(5x + 11) = 0$$

Taking,

$$\Rightarrow (x + 3) = 0 \text{ or } (5x + 11)$$

$$\Rightarrow x = -3 \text{ or } (-11/5)$$

From II,

$$y^2 + 18y + 65 = 0$$

$$\Rightarrow y^2 + 13y + 5y + 65 = 0$$

$$\Rightarrow y(y + 13) + 5(y + 13) = 0$$

$$\Rightarrow (y + 13)(y + 5) = 0$$

Taking,

$$\Rightarrow (y + 13) = 0 \text{ or } (y + 5) = 0$$

$$\Rightarrow y = -13 \text{ or } -5$$

Comparison between x and y (via Tabulation):

Value of x	Value of y	Relation
-3	-13	$x > y$
-3	-5	$x > y$
-11/5	-13	$x > y$
-11/5	-5	$x > y$

$\therefore x > y$

24. (c) From I,

$$x^2 - 17x + 72 = 0$$

$$\Rightarrow x^2 - 8x - 9x + 72 = 0$$

$$\Rightarrow x(x - 8) - 9(x - 8) = 0$$

$$\Rightarrow (x - 8)(x - 9) = 0$$

$$\Rightarrow x = 8, 9$$

From II,

$$3y^2 - 32y + 64 = 0$$

$$\Rightarrow 3y^2 - 24y - 8y + 64 = 0$$

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

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

$$\Rightarrow y = 8, 8/3$$

Comparison between x and y (via Tabulation)

Value of x	Value of y	Relation
8	8	$x = y$
8	$8/3$	$x > y$
9	8	$x > y$
9	$8/3$	$x > y$

$$\therefore x \geq y$$

25. (b) From I,

$$6x^2 + 19x - 25 = 0$$

$$\Rightarrow 6x^2 + 25x - 6x - 25 = 0$$

$$\Rightarrow x(6x + 25) - 1(6x + 25) = 0$$

$$\Rightarrow (6x + 25)(x - 1) = 0$$

Taking,

$$\Rightarrow (6x + 25) = 0 \text{ or } (x - 1) = 0$$

$$\Rightarrow x = (-25/6) \text{ or } 1$$

From II,

$$y^2 - 10y + 24 = 0$$

$$\Rightarrow y^2 - 6y - 4y + 24 = 0$$

$$\Rightarrow y(y - 6) - 4(y - 6) = 0$$

$$\Rightarrow (y - 6)(y - 4) = 0$$

Taking,

$$\Rightarrow (y - 6) = 0 \text{ or } (y - 4) = 0$$

$$\Rightarrow y = 6 \text{ or } 4$$

Comparison between x and y (via Tabulation):

Value of x	Value of y	Relation
$-25/6$	6	$x < y$
$-25/6$	4	$x < y$
1	6	$x < y$
1	4	$x < y$

$$\therefore x < y$$

26. (c) **Given:**

Total players = 22,000

Percentage of players who play Basketball = 15%

Percentage of players who play Athletics = 20%

Formula used:

Total players in Basketball and Athletics = total Basketball players + total Athletics players

Calculation:

$$\text{Total percentage} = 20 + 15 = 35\%$$

$$\text{Total players in Basketball and Athletics} = 35 \div 100 \times 22000$$

$$\text{Total players in Basketball and Athletics} = 7,700$$

27. (b) **Given:**

Total players = 22,000

Percentage of players who play Cricket = 30%

Percentage of players who play Basketball = 15%

Formula used:

The difference of players who play Cricket and Basketball = total Cricket players – total Basketball players

Calculation:

$$\text{Difference of players in percentage} = 30\% - 15\% = 15\%$$

So, the difference between players who play cricket and Basketball = $15 \div 100 \times 22000$

The difference between players who play Cricket and Basketball = 3,300

28. (a) **Given:**

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Total players = 22,000

Percentage of players who play Cricket = 30%

Percentage of players who play Disc throw = 10%

Percentage of players who play Basketball = 15%

Percentage of players who play Athletics = 20%

Percentage of players who play Chess = 25%

Formula used:

Average = Total players \div number of sports

Calculation:

$$\text{Average} = 22,000 \div 5$$

$$\text{Average} = 4,400$$

29. (a) Ratio of Athletics and Disc throw = 20% : 10% = 2 : 1

30. (b) The percentage of the total Athletics players and Chess players out of the total players = Athletics % + Chess %
 $\Rightarrow 20\% + 25\% = 45\%$

31. (a) Let Manoj's age be x

Anuj's age = x - 2

Geeta's age = x + x - 2 - 2 = 2x - 4

A.T.Q

$$(x + 6)/(2x - 4 + 6) = 5/8$$

$$\Rightarrow 8x + 48 = 10x + 10$$

$$\Rightarrow 2x = 38$$

$$\Rightarrow x = 19 \text{ years}$$

$$\therefore \text{Anuj's age} = 19 - 2 = 17 \text{ years}$$

\therefore Anuj is 17 years old.

32. (b) Efficiency of Akash : Efficiency of Bikram = 2 : 1

Then, Time taken by Akash : Time taken by Bikram = 1 : 2

Time taken by Akash = $(1/2) \times$ Time taken by Bikram

$$\Rightarrow (1/2) \times 8 \text{ days}$$

$$\Rightarrow 4 \text{ days}$$

And Time taken by Bikram : Time taken by Chetan

$$= 1 : 2$$

Then, Time taken by Chetan = 2 \times Time taken by Bikram

$$\Rightarrow 2 \times 8 \text{ days}$$

$$\Rightarrow 16 \text{ days}$$

Total work = LCM of 4, 8 and 16 = 16 units

Efficiency of Akash = $(16/4) = 4$ units/day

And Efficiency of Chetan = $(16/16) = 1$ unit/day

In 1 day, Akash and Chetan complete = $(4 + 1)$ units

$$= 5 \text{ units}$$

Now Required time = $16/5$ days

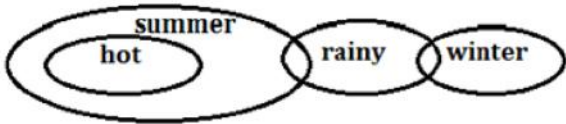
\therefore Akash and Chetan together complete the work in $(16/5)$ days.

(19-21):

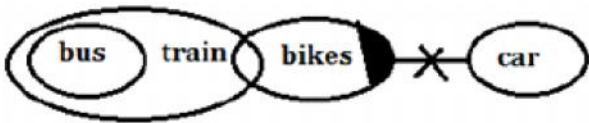
Months	Dates	Persons
January	15	Q
	30	O
March	15	L
	30	M
April	15	R
	30	T
September	15	P
	30	U
November	15	N
	30	S

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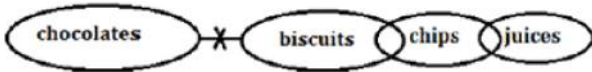
- 19. (c)
- 20. (a)
- 21. (e)
- 22. (d)



23. (a)

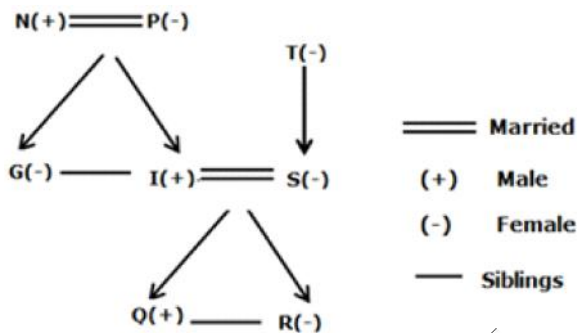


24. (c)



- 25. (c)
- 26. (a)
- 27. (a)

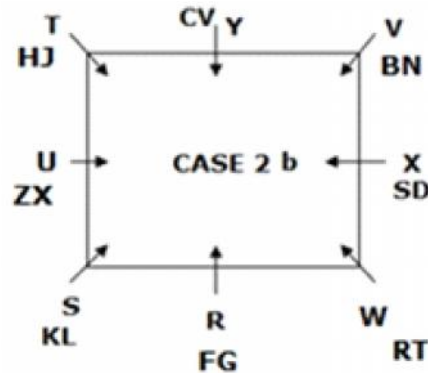
(28-30):



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

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(31-33):



ACHIEVERS In Focus

- 31. (a)
- 32. (b)
- 33. (c)

(34-35):



- 34. (e)
- 35. (e)

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English Language

1. (d) Part (B) 'extremely compassionate' should be there in place of 'extreme compassionate'
 Explanation: 'extremely' is an adverb and an adverb qualifies an adjective whereas 'extreme' is an adjective that qualifies a noun.
 Part (C) 'of the smaller' should be there in place of 'the smaller'
 Explanation: phrases and clauses connected by conjunction follow the rule of parallelism. Here 'view of' is being talked about. So 'as well as' will also be followed by the preposition 'of'.
2. (c) Possession is the right word as possession means the state of having, owning, or controlling something. When we have full control over 'how to use wisdom and creativity', we are able to solve problems.
3. (a) 'perpetual' is an adjective and we need an adverb to qualify it. Thus from the given options only 'seemingly' is an adverb. So it is the most suitable answer.
 Complete sentence: Gandhi formulated a series of diagnoses of the modern world's seemingly perpetual state of crisis, which he called "the seven social sins."
4. (c) **Inevitable** means certain to happen; unavoidable. All the other words except '**avoidable**' are the synonyms of Inevitable.
5. (d) The first line of the second paragraph mentions that war and other problems have arisen because we have not used our civilizing capacities and it is followed by a colon and

a colon always introduces a list So 'wisdom and creativity' is the answer.

6. (b) After the independence of the country, various laws and regulations were implemented regarding child labour, however, it did not lead to any favourable result.
7. (a) Most of the children under the poverty line are forced to indulge in child labour daily even after a lot of awareness programs are run by the government for the welfare of these children.
8. (d) Some people are destroying the future of our country for earning a small amount of money by illegally involving the kids in exploitative work.
9. (c) Child labour is a socio-economic issue which needs to be solved at the earliest.
10. (e) Protecting children from child labour is the responsibility of the citizens.
11. (b) Refer to the first paragraph- "Therefore, the policy objective must be to find ways of ensuring that the lockdown ends early without compromising on public health." Referring to the quoted text, we can infer that the statement given in option (b) is correct in context of the given question. Hence, option (b) is the most suitable answer choice.
12. (a) Refer to the second paragraph- "The government should fully subsidise these costs. The second precondition is the substantial ramping up of manufacturing capacities for medical grade masks, gloves, gowns, ventilators, testing labs, etc. This ought to be on a scale large enough for domestic use and, if possible, for exports for costs to be low." Referring to the quoted text, we can infer that only the statement (a) does not find any reference in the quoted text. Hence, option (a) is the most suitable answer choice.
13. (c) Refer to the third paragraph- "..... because liquidity and cash released by monetary and fiscal policies cannot get transmitted to the real sector during an economic shutdown unless they are funneled into the sector that is still active, which is healthcare." Referring to the quoted text, we can infer that the statement given in option (c) is correct in context of the given question. Hence, option (c) is the most suitable answer choice.
14. (c) Refer to the first paragraph- "..... reduced by combining aggressive testing and isolation, a strategy proposed by economist Paul Romer for the U.S. For it to work, people must be tested in large numbers." Referring to the quoted text, we can infer that the statement given in option (c) is correct in context of the given question. Hence, option (c) is the most suitable answer choice.
15. (d) Refer to the second paragraph- "The strategy calls for fully operational hospitals to be constructed in every district of the country in a matter of weeks." Referring to the quoted text, we can infer that the statement given in option (d) is correct in context of the given question. Hence, option (d) is the most suitable answer choice.
16. (c) Refer to the third paragraph- "..... the public health versus economic health trade-off can be resolved. The spread of COVID-19 will slow down. The economic pain of combating the virus will reduce. There will be jobs, including for low-skilled construction labourers." Referring to the quoted text, we can infer that only the statement (c) does not find any reference in the quoted text. Hence, option (c) is the most suitable answer choice.
17. (a) Refer to the last paragraph- "..... first instinct of policymakers is to slap controls. Just about everything from masks to kits has been placed under price controls. This has removed the incentive for private labs to ramp up capacities." Referring to the quoted text, we can infer that the statement given in option (a) is correct in context of the given question. Hence, option (a) is the most suitable answer choice.
18. (c) Among the given statements, 'to defend against some unwanted thing' infers the correct meaning of the phrase 'fend off'. Hence, option (c) is the most suitable answer choice.
19. (d) The correct sequence is BCA. The city's administration (B) has taken the decision (C) to keep the schools closed based on the assessment (A) of the local conditions where the number of cases continue to rise.
20. (c) The correct sequence is CBA A study conducted (C) by researchers at Azim Premji University, Bangalore, has found that online education is ineffective (B) and inadequate for school children's development (A).
21. (a) Instead of 'I shall pass' use 'I pass'.
22. (a) Use 'has been' in place of 'is' as since + time is given. When using since, we normally use present perfect and past perfect tenses in the main clause of the sentence.
23. (e) The given sentence is grammatically and contextually correct.
24. (d) 'relevant' should be replaced by 'relevance'.
25. (c) Remove 'the' from the sentence. No article is used before the names of meals.
26. (a) 'point, beyond' is the correct use.
Beyond- at or to the further side of.
27. (b) 'absorbed, heed' is the correct use.
Heed- pay attention to; take notice of.
28. (d) 'sweeping, unrealistic' is the correct use.
Sweeping- wide in range or effect.
Unrealistic- inappropriate to reality or fact.
29. (c) 'left, unrealistic' is the correct use.
Unrealistic- inappropriate to reality or fact.
30. (b) 'perfection, compete' is the correct use.

