

Quantitative Techniques and Data Interpretation

1. In how many ways a committee consisting of 5 men and 6 women can be formed from 8 men and 10 women ?

- A 5041
- B 5040
- C 11670
- D 11760

2. What is the farthest distance between two points on a cylinder of: HEIGHT 8 and RADIUS 8 ?

- A $8\sqrt{5}$
- B $16\sqrt{5}$
- C $8\sqrt{2}$
- D $8\sqrt{3}$

3. Find the smallest number by which 2400 should be divided to make it a perfect cube.

- A 220
- B 385
- C 260
- D 300

4. In a certain town, 40% of people have brown hair, 30% of people have brown eyes and 12% have both brown hair and brown eyes.
How many people in town have neither brown hair nor brown eyes ?

- A 44%
- B 43%
- C 41%
- D 42%

5. A company publishes to its customers that at a certain compound interest rate, a sum of money deposited by anyone will become 8 times in 3 years. If the same amount is deposited at the same compound rate of interest, then in how many years will it become 16 times ?

- A 4 years
- B 3.5 years
- C 3 years
- D 4.5 years

6. The sum of two numbers is 135 and their HCF is 9. How many such pairs of numbers can be formed ?

- A 2
- B 5
- C 4
- D 6

7. Simplify the following: $\frac{0.3 \times 0.3 + 0.03 \times 0.03 - 0.6 \times 0.03}{0.54}$

- A 0.03
- B 0.135
- C 0.982
- D 9.37

8. The LCM and HCF of two numbers are 84 and 21 respectively. If the ratio of two numbers is 1 : 4, then the larger among two numbers is:

- A 28
- B 48
- C 88
- D 84

9. If $x : y = 2 : 3$, the value of $(3x + 2y) : (2x + 5y)$ is:

A $\frac{12}{25}$

B $\frac{11}{27}$

C $\frac{11}{15}$

D $\frac{12}{19}$

10. The work done by a man, woman and child are in the ratio 3: 2:1. If daily wages of 20 men, 30 women and 36 children amount to 78/-, what will be the wages of 15 men, 21 women and 30 children for 18 weeks ?

A 7371/-

B 8645/-

C 7532/-

D 9000/-

CollegeDekho

11. X and Y are running towards each other from their houses. X can reach Y's house in 25 minutes which is half the time taken by Y to run from his house to X's house. If the two start to run towards each other at the same time, then how much more time it will be required by Y to reach the middle of houses ?
- A 18 min.
 - B 25 min.
 - C 50 min.
 - D 12.5 min.

12. 25,000/- is borrowed at compound interest at the rate of 3% for first year, 4% for 2nd year and 5% for 3rd year. Find the amount to be paid after 3 years.

- A 28,117/-
- B 28,118/-
- C 28,120/-
- D 28,119/-

13. Two successive discounts of 8% and 12% are equal to a single discount of:

- A 22%

- B 19.04%
- C 20%
- D 20.96%

14. A shopkeeper marks his books at 25% above the cost price. Due to slump in the market, his cost reduces by 5%. And then, to boost his sale, he offered a discount of 8% due to which sales goes up by 25%. Compute the change in the shopkeepers profit.

- A No change
- B 7% change
- C 2.5% change
- D 8% change

15. Brother and sister both appear for an interview. The probability of the selection of brother is $\frac{1}{8}$ while the probability of rejection of sister is $\frac{4}{5}$. What is the probability that only one of them is selected ?

A $\frac{11}{40}$

B $\frac{7}{40}$

C $\frac{5}{13}$

D $\frac{1}{10}$

16. Tom's salary is 150% of John's salary. John's salary is 80% of Steve's salary. What is the ratio of Steve's salary to Tom's salary ?

A 4 : 5

B 5 : 4

C 6 : 5

D 5 : 6

17. There are six teachers. Out of them, two teach physics, other two teach Chemistry and the rest two teach Mathematics. They have to stand in a row such that Physics, Chemistry and Mathematics teachers are always in a set. The number of ways in which they can do, is :

- A 24
- B 48
- C 36
- D 12

18. Five years ago, the average age of A,B,C and D was 45 years. By including X in the present lot their present average changes to 49 years. What is the present age of X?

- A 40 years
- B 45 years
- C 49 years
- D 48 years

19. Which of the following sets of numbers can be used as the lengths of the sides of a triangle ?

- A [5, 7, 12]

- B [5, 7, 9]
- C [7, 9, 17]
- D [2, 4, 10]

20. In how many different ways, can the letters of the words EXTRA be arranged so that the vowels are never together ?

- A 168
- B 48
- C 120
- D 72

21. A city has an average demand of water of 33,000 Lts. of water which lasts for 50 days. But if some people enter the city, then the demand increases to 37,000 Lts. of water for which supply will lasts 35 days. Give an estimation of how much minimum water should be used daily so that it could last 50 days ?

- A 24,253.00 Lts.
- B 23,666.66 Lts.
- C 23,662.34 Lts.
- D 24,123.72 Lts.

Instructions [22 - 25]

Number of Boys and Girls (in hundreds) in six different years in 5 different schools data is given below :

School →	A		B		C		D		E	
Years ↓	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2014	3.3	3.6	5.2	3.1	5.5	4.5	2.4	1.4	6.5	6.6
2015	6.6	4.2	4.9	2.2	6.9	3.3	4.4	2.3	5.5	3.6
2016	9.3	6.9	4.7	4.2	5.8	4.9	6.4	3.3	2.7	2.4
2017	5.4	9.6	6.3	5.4	6.6	5.2	5.3	5.4	5.4	5.7
2018	8.4	12.9	7.5	5.9	8.7	6.6	12.1	5.2	6.8	6.5
2019	12.3	14.4	9.8	4.4	11.7	4.2	12.2	9.4	10.8	12.7

22. What is the approximate percentage decrease in the number of boys in school D in the year 2017 as compared to the previous year ?

- A 17%
- B 5%
- C 9%
- D 12%

23. The number of girls in school B in the year 2018 is approximately what percent of the total number of students in school E in the year 2015 ?

- A 52%
- B 65%

C 58%

D 46%

24. What is the average number of girls in school A in all years taken together ?

A 860

B 600

C 760

D 800

25. What is the ratio of the number of boys in school C in the year 2018 to the number of girls in school A in the year 2018 ?

A 29 : 43

B 36 : 11

C 36 : 13

D 29 : 41

Logical Reasoning

26. In the following, choose the pair/ group of words having same relationship as given in question.
Elevated : Exalted :: :

- A Disorderly : Unfaithful
- B Raise : Commensurate
- C Promoted : Excellence
- D Dirty : Filthy

27. The question given below consists of a statement, followed by 3 arguments numbered I, II and III. You should decide which of the arguments is/are 'strong' argument(s) and which is/are 'weak' argument(s) and accordingly choose your answer from given options.

Statement:

Should religion be taught in schools ?

Arguments:

I. No, ours is a secular state.

II. Yes, teaching religion helps inculcate moral values among children.

III. No, how can one dream of such a step when we want the young generation to fulfill its role in the 21st century.

- A All are strong
- B Only I and III are strong
- C Only II is strong
- D Only I is strong

28. Find the missing letters.

_ _ a b a _ _ b a _ a b

- A a b b a b
- B b a a b b
- C a b b a
- D b b a b a

29. What comes next ?

3, 12, 27, 48, 75, 108,

- A 183
- B 147
- C 192
- D 162

30. From the given alternatives find the correct relationship that holds between two terms :

FJUL : BOQQ :: LHRX :

- A HCMM
- B HMNC
- C HMCM
- D HMCC

31. Should all the factories in the cities be shifted to outskirts far away from the main city ?

Arguments:

I. Yes, this is essential step for controlling pollution in the city.

II. No, such step will lead to lot of inconvenience to the employees of the factories and their families as well.

- A If both I and II are strong.
- B If neither I nor II is strong.
- C If only II is strong.
- D If only argument I is strong.

32. A man wears gloves of two colours - Red and Green. He has altogether 30 Red Gloves and 10 Green Gloves. Supposing he has to take out Gloves in dark, how many must he take out to be sure that he has a matching pair ?

- A 4

- B 5
- C 6
- D 3

33. In a certain code language, RUSTICATE is written as QTTUIDBSD. How would STATISTIC be written in that code ?

- A RSBUITUHB
- B RSBUJTUHB
- C TUBUITUMB
- D RSBUIRSJD

34. The following question is given by 2 statements and 2 conclusions numbered I and II. Choose the right answer from given option.

Statements:

All huts are bungalows.

All bungalows are churches.

Conclusions:

I. Some churches are huts.

II. Some churches are bungalows.

- A If only conclusion II follows.
- B If either conclusion I or II follows.
- C If only conclusion I follows.
- D If both conclusion I and II follow.

35. Choose the right answer, based on the relationship given in question.

Clasp: Bracelet

- A Hook : Coat
- B Cuff : Trousers
- C Wrist : Watch
- D Buckle : Belt

36. Identify the odd man out.

- A Brinjal

- B Cabbage
- C Papaya
- D Cucumber

37. In the following question, select one alternative in which the third statement is implied by the first two statements.

- A All wolve's are wild. All tiger's are wild. So,all tigers are wolves.
- B All buses are boxes. All hens are buses. So, all boxes are hens.
- C All POR can run. All ABC are POR. So, all ABC can run.
- D All oranges are red. Somepeaches are strawberries. So, all peaches are red.

Instructions [38 - 41]

Comprehension:

Mr. Ravi Reddyhas three children - Swarna, Kamal and Avinash. Avinash married Madhuri, the eldest daughter of Mr. and Mrs. Chowdhry. The Chowdhry's married their youngest daughter to the eldest son of Mr. and Mrs. Patel, and they had two children named Arun and Sharada. The Chowdhry's have two more children Ratan and Varsha, both elder to Veeksha. Sameer and Ajay are sons of Avinash and Madhuri. Rohini is the daughter of Arun.

38. What is the surname of Rohini ?

- A Arora
- B Reddy
- C Chowdhry
- D Patel

39. How is Sameer related to Madhuri's father ?

- A Grandson
- B Son-in-Law
- C Son
- D Father-in-Law

40. What is the surname of Sameer ?

- A Chowdhry
- B Cannot be determined
- C Patel

D Reddy

41. How is Mrs. Chowdhry related to Avinash ?

A Aunt

B Sister-in-Law

C Mother-in-Law

D Mother

42. In the following alphabets, which letter is eight to the right of the fourteenth letter from the right end ?
ZABCDEFGHIJKLMNQRSTUWXYZ

A S

B H

C R

D T

43. Saritha went 15 km to the West from her house, then turned left and walked 20 km. She then turned East and walked 25 km and finally turning left covered 20 km. Howfar is she from her house ?

A 80 km

B 40 km

C 5 km

D 10 km

44. Choose the correct order.

(A) Yarn (B) Silkworm (C) Saree (D) Silk (E) Cloth

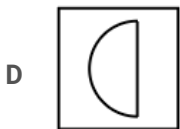
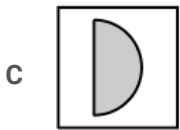
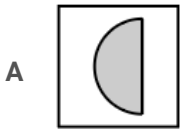
A (C), (D), (A), (B), (E)

B (B), (D), (A), (E), (C)

C (B), (D), (E), (A), (C)

D (B), (D), (C), (E), (A)

45. What comes next ?



46. Standing near a bus stop, Ayush told Smitha that Koti was more than ten kilometres but less than 15 kilometres from there. Smitha know that it was more than 12 kilometres but less than fourteen kilometres from there. If both of them were correct, which of the following could be the distance to Koti from the bus stop ?

- A 14 km
- B 12 km
- C 11 km
- D 13 km

47. What comes next ?



48. Identify the missing numbers.

9	11	13
13	15	17
10	12	14
10	12	14
14	16	?
11	13	?

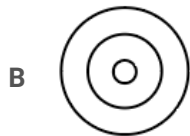
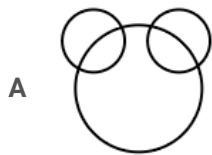
A 22, 20

B 14, 18

C 12, 13

D 18, 15

49. How is this represented using a Venn diagram ?
Shirt, Collar, Pocket



50. In the following question, different letters stand for various symbols as indicated below :

R: Addition

S: Subtraction

T: Multiplication

U: Division

V : Equal to

W: Greater than

X: Less than

Out of the four alternatives given only one is correct according to the above letter symbols. Identify the correct one.

A 16T2R4U6X8

- B 16U2R4S6W8
- C 16R2S4V6R8
- D 16T2U4V6R8

Language Comprehension

Instructions [51 - 56]

Comprehension:

The reformer must know that what moves people is the authentic life, not mere writing. The newspaper and journals that Tilak and other reformers ran, the books they wrote, sold little, but had an enormous effect. Their writing was known to reflect and be just an extension of, their exemplary lives. It was the authenticity of their lives which lent weight to their message, to their example. All knew that their lives were an integral whole - they were not moral in public life and lacking in private, not vice versa. They were not full of pious thoughts and sacred resolutions within the walls of a temple.

A writer who is merely entertaining his readers, even one who is merely informing them, can do what he wants with the rest of his life. But the writer, who sets out to use his pen to reform public life, can not afford such dualities. Here is the testimony of one great man - about the influence of another, Lokmanya Tilak.

"I believe that an editor who has anything worth saying and who commands a clientele cannot easily be hushed. He delivered his finished message as soon as he is put under duress. Tilak spoke more eloquently from the Mandalay fortress than through columns of the printed Kesari. His influence was multiplied a thousandfold by his imprisonment and his speech and his pen had acquired much greater power after he was discharged than before his imprisonment. By his death we have been editing his paper without pen and speech through the sacred resolution of the people to realize his life's dream.

He could possibly have done more if he were today in flesh preaching his view. Critics like me would perhaps be still finding fault in the expression of this or that. Today, his message rules millions of hearts which are determined to raise permanent a living memorial by the fulfilment of his ambition in their lives".

51. Complete the following sentence:

Tilak's messages were most effective

- A when he delivered them through editorials
- B after his death
- C before his imprisonment
- D when delivered in speeches

52. Which of the following is the result of Lokmanya Tilak's exemplary life ?

- A People resolved to fulfil his life's dreams
- B The newspapers edited by him did not incur monetary loss

- C He was put in jail at Mandalay
- D The books written by him are useful

53. Which of the following is the general tendency of critics according to the passage ?

- A To condemn one and all the reformer writers
- B To justify their criticism
- C To praise only those writers who they like
- D To find fault with one or the other expression of a writer

54. In the context of the passage, a reformer becomes effective if :

- A he is a journalist with an objective view point
- B he is an author with an excellent style of writing
- C he is good critic of social practices
- D he is a person with consistency in his writing and life style

55. Which of the following types of writers can be moral in their personal life and lack in public life ?

- A Those who want to reform people
- B Those whose writing is an extension of their exemplary lives
- C Those who lead an authentic life
- D Those who want to entertain people

56. In the context of the passage, which of the following statements about Tilak and the reformers is true ?

- A They were moral in private life but lack in public life
- B Very few people used to read the newspapers even from inside the jail
- C They were allowed to edit their newspapers even from inside the jail
- D Their influence on people was negligible

57. Choose the correctly spelt word.

- A Foreign
- B Fariegn
- C Foriegn
- D Forein

58. In the following sentence, choose the nearest similar meaning word so that the meaning of sentence may not change.

Ritu asked Rashmi not a meddle in her affairs.

- A enthuse
- B impose
- C interfere
- D cross

59. Radha keeps an open house every weekend to teach yoga.

What does the underlined word mean ?

- A Welcomes all those who are interested
- B Keeps the doors of her house open
- C Welcomes selected group of people
- D Welcomes yoga practioners

60. The appropriate meaning of stir up a hornet's nest would be

- A to create trouble
- B to quicken an action
- C to destroy homes and settlements
- D to mix the good and the bad

61. New Metro Rail Project was commissioned yesterday at Hyderabad by the State Railway Minister. What is the opposite of the underlined word ?

- A Closed
- B Started
- C Finished
- D Terminated

62. Fill in the blank with appropriate word(s).

One who believes in no Government and the refore incites disorder in a state is called

- A a Naxalite
- B an Autocrate

C a Monarchist

D an Anarchist

63. Fill in the blank(s) with appropriate word/ words.

Confused and Shyam fumbled to make sense of seemingly inconsistent statements, the impatience of his listeners.

A prostrate, listening to

B philosophical, overlooking

C incoherent, oblivious to

D tired, hearing

64. In this question, a word is underlined in the given sentence. For the underlined word, four words are listed below. Choose the word nearest in meaning to the underlined word.

The football coach had a sympathetic presence, albeit a commanding one.

A Although

B Further more

C Because

D Not only

65. In this question, you are given a sentence, a part of which is underlined. This is followed by four ways of phrasing the underlined part. Select the version that best rephrases the underlined part.

We want the teacher to be him who has the best rapport with the students.

A We want him to be the teacher.

B We want the teacher to be he.

C We anticipate the teacher to be him.

D We desire the teacher to be him.

66. The question has a group of sentences marked A, B, C, D and E. Arrange these to form a logical sequence.

(A) but there is some merit in it

(B) as distinct from consumption

(C) the bifurcation of plan and non-plan funds

(D) in so far as it focuses attention on development expenses

(E) in the budget in artificial

A (D), (C), (A), (B), (E)

B (D), (E), (A), (C), (B)

C (C), (E), (A), (B), (D)

D (C), (D), (B), (E), (A)

67. Rajiv's utopian idea was entertaining, but not acceptable. What does the underlined word mean ?

- A imaginary idea
- B classic idea
- C big idea
- D unworthy idea

68. Form a meaningful sentence from the given sentences.

- (A) It results from a carefully revised plan
- (B) Men work together for a cause or purpose
- (C) Team work does not just happen
- (D) It must be clearly known to them

- A (C), (A), (B), (D)
- B (B), (C), (D), (A)
- C (B), (C), (A), (D)
- D (C), (B), (D), (A)

69. What do you understand by - FRATRICIDE ?

- A murder of a foetus
- B murder of oneself
- C murder of father
- D murder of brother

70. Select the word or phrase which is closest to the opposite in meaning to the underlined word.

You are advised to show clemency to the defeated enemy.

- A Mercy
- B Cruelty
- C Kindness
- D Leniency

71. Fill in the blank(s) with appropriate word/ words.

As head of the organisation, he attended social functions and civil meetings, but had no in the formulation of company policy.

- A hypothetical, vote
- B former, pride
- C nominal, competition
- D titular, voice

72. Choose the most suitable word for the given expression.

One who cannot die.

- A Invulnerable
- B Perpetual
- C Mortal
- D Immortal

73. Fill in the blank with appropriate word/words.

Harris thirteen pages when his laptop crashed.

- A is typing
- B had already typed
- C has typed
- D typed

74. Rajni is a **Voracious** reader.

The meaning of the underlined word is:

- A tenacious
- B truthful
- C spacious
- D ravenous

75. Choose an appropriate synonym for the given word:

WREAK

- A to sweat
- B to sting
- C to twist
- D to inflict

General Awareness

76. Who wrote the book "The Paradoxical Prime Minister" ?

- A Khushwant Singh
- B Shashi Tharoor
- C Arundhati Roy
- D Vikram Seth

77. VAIO is the product of which company ?

- A Dell
- B Verizon Associates
- C Sony
- D Compac

78. How many overs were allowed per side in the inaugural 1975 Cricket World Cup ?

- A 60
- B 50
- C 25
- D 40

79. Who is the founding member of Muslim League?

- A Md.Ali Jinnah
- B Aga Khan
- C Shaukat Ali
- D Nawab Khwaja Salimullah

80. In India, how many banks were nationalised during Second Round of Nationalization in 1980 ?

- A 7 Banks
- B 6 Banks
- C 8 Banks
- D 5 Banks

81. EXIM Policy of India is prepared by

- A SEBI
- B Ministry of Finance
- C Ministry of Commerce
- D RBI

82. Which Indian has become the first woman in the world to be awarded with the International Maritime Organisation (IMO) award for Exceptional Bravery at sea ?

- A P.V. Sindhu
- B Radhika Menon
- C Bhawana Kanth
- D Avani Chaturvedi

83. What do you call the study of inscriptions ?

- A Palaeography
- B Archaeology
- C Numismatics
- D Epigraphy

84. 'Grapevine' is the term used in relation to

- A E-mail Communication
- B Group Communication
- C Formal Communication
- D Informal Communication

85. Birla Industrial and Technological Museum is located in the state

- A Maharashtra
- B West-Bengal

- C Bihar
- D Karnataka

86. The length of the longest railway platform in India is

- A 4481.6 ft.
- B 4412 ft.
- C 4492 ft.
- D 4432 ft.

87. MDMK is Political Party, what does it stand for ?

- A Makkal Dravida Munnetra Kazhagam
- B Munnetra Dravida Marumalarchi Kazhagam
- C Marumalarchi Dravida Munnetra Kazhagam
- D Madras Dravida Munnetra Kazhagam

88. Which city houses the headquarters of International Atomic Energy Agency (IAEA), the World's 'Atoms for Peace' organisation set-up in 1957 within the United Nations family ?

- A Vienna (Austria)
- B NewYork (USA)
- C Tokyo (Japan)
- D Geneva (Switzerland)

89. The country which is also known as Persia is

- A Iran
- B Iraq
- C Qatar
- D Kuwait

90. Which is the oldest Veda ?

- A Atharveda
- B Samveda

- C Rigveda
- D Yajurveda

91. Who is the only batsman to score five centuries in a single edition of ICC World Cup ?

- A Rohit Sharma
- B Hardik Pandya
- C Clive Loyd
- D Virat Kohli

92. To which field of literature is the 'Booker Prize' awarded every year ?

- A Fiction
- B Autobiography
- C Religion
- D Philosophy

93. The bank which merged with Capital First was

- A IDBI
- B ICICI
- C IDFC
- D SBI

94. Which city is known for its 'Chicken embroidery' ?

- A Surat
- B Pune
- C Indore
- D Lucknow

95. is gained when a bullet is fired upwards vertically.

- A Synergy
- B Kinetic Energy

- C Energy
- D Potential Energy

96. The famous hill station 'Kodaikanal' is in

- A Nilgiri Hills
- B Palani Hills
- C Javadi Hills
- D Cardomom Hills

97. What strait divides Moracco and Spain ?

- A Strait of Malacca
- B Strait of Hormuz
- C Strait of Bosphorus
- D Strait of Gibraltar

98. Who won the Miss Universe Australia title in 2019 ?

- A Sushmitha Rao
- B Preethi Lamba
- C Priya Serrao
- D Kalpana Chawla

99. The longest circle which can be drawn on the Earth's surface passes through :

- A Tropic of Capricorn
- B Tropic of Cancer
- C Arctic circle
- D Equator

100. 'Siamese Fighting Fish' is the national aquatic animal of which country ?

- A Australia
- B New Zealand
- C Thailand
- D Singapore

Answers

Quantitative Techniques and Data Interpretation

1.D	2.A	3.D	4.D	5.A	6.C	7.B	8.D
9.D	10.A	11.D	12.D	13.B	14.A	15.A	16.D
17.B	18.B	19.B	20.D	21.B	22.A	23.B	24.A
25.A							

Logical Reasoning

26.D	27.C	28.A	29.B	30.B	31.D	32.D	33.A
34.D	35.D	36.B	37.C	38.D	39.A	40.D	41.C
42.D	43.D	44.B	45.A	46.D	47.C	48.D	49.C
50.C							

Language Comprehension

51.D	52.A	53.A	54.D	55.B	56.A	57.A	58.C
59.A	60.A	61.D	62.D	63.C	64.A	65.A	66.B
67.A	68.A	69.D	70.B	71.B	72.D	73.B	74.D
75.D							

General Awareness

76.B	77.C	78.A	79.A	80.B	81.C	82.B	83.D
84.D	85.B	86.A	87.C	88.A	89.A	90.C	91.A
92.A	93.C	94.D	95.D	96.B	97.D	98.C	99.D
100.C							

Explanations

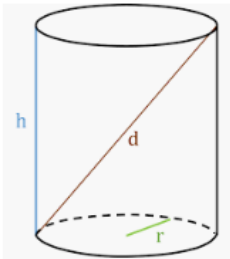
Quantitative Techniques and Data Interpretation

1. D

Number of ways a committee consisting of 5 men and 6 women can be formed from 8 men and 10 women

$$\begin{aligned}
 &= C_6^{10} \times C_5^8 \\
 &= C_4^{10} \times C_3^8 \\
 &= \frac{10 \times 9 \times 8 \times 7}{1 \times 2 \times 3 \times 4} \times \frac{8 \times 7 \times 6}{1 \times 2 \times 3} \\
 &= (10 \times 3 \times 7) \times (8 \times 7) \\
 &= 210 \times 56 = 11760 \\
 &\Rightarrow \text{Ans - (D)}
 \end{aligned}$$

2. A



Height of cylinder = 8 units and radius = 8 units

$$\begin{aligned}
 &\Rightarrow \text{Farthest distance} = \text{hypotenuse} = \sqrt{(8)^2 + (16)^2} \\
 &= 8\sqrt{5} \text{ units} \\
 &\Rightarrow \text{Ans - (A)}
 \end{aligned}$$

3. D

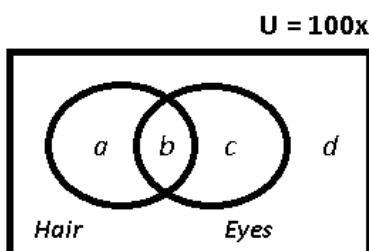
Prime factorization of :

$$2400 = (2)^5 \times (3) \times (5)^2$$

Now, to make it a perfect cube, we need to make the powers multiple of 3, and thus we need to divide it by = $(2)^2 \times 3 \times (5)^2 = 300$

\Rightarrow Ans - (D)

4. D



Let total number of people in the town = $100x$

People who have both brown hair and eyes = $b = 12x$

=> People who have brown hair = $a + b = 40x$

=> $a = 28x$

Similarly, $c = 18x$

∴ People who have neither brown hair nor brown eyes = $100x - (12x + 18x + 28x) = 42\%$

=> Ans - (D)

5. A

If a sum of money becomes x times in a years, it will become y times in b years

=> $(x)^{\frac{1}{a}} = (y)^{\frac{1}{b}}$

Similarly, $(8)^{\frac{1}{3}} = (16)^{\frac{1}{t}}$

=> $(2)^{\frac{3}{3}} = (2)^{\frac{4}{t}}$

=> $1 = \frac{4}{t}$

=> $t = 4$ years

=> Ans - (A)

6. C

Let the two numbers be $9x$ and $9y$, where x and y are co prime numbers.

=> $9x + 9y = 135$

=> $x + y = \frac{135}{9} = 15$

Now, pairs of natural numbers having sum 15 and co prime are = (1,14), (2,13), (4,11), (7,8)

Thus, **4** such pairs can be formed.

=> Ans - (C)

7. B

According to BODMAS,

first Multiply the given numbers

$0.3 \times 0.3 = 0.09$

$0.03 \times 0.03 = 0.0009$

$0.6 \times 0.03 = 0.018$

simplifying this according to the given question,

$0.09 - 0.0009 - 0.018 = 0.0729$

$$\text{now } \frac{0.0729}{0.54}$$

$$\Rightarrow 0.135$$

Therefore answer is option b

8. D

Let the two numbers be x and $4x$

$$\Rightarrow x \times 4x = 84 \times 21$$

$$\Rightarrow x^2 = (21)^2$$

$$\Rightarrow x = 21$$

$$\therefore \text{Larger number} = 4 \times 21 = 84$$

$$\Rightarrow \text{Ans - (D)}$$

9. D

Let $x = 2$ and $y = 3$

$$\text{To find : } \frac{3x+2y}{2x+5y}$$

$$= \frac{3(2)+2(3)}{2(2)+5(3)}$$

$$= \frac{12}{19}$$

$$\Rightarrow \text{Ans - (D)}$$

10. A

Let the efficiency of a man, woman and child be $3x$, $2x$, x respectively.

$$\text{Thus, 1 day wage} = (3x \times 20) + (2x \times 30) + (x \times 36) = 78$$

$$\Rightarrow 156x = 78$$

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

$$\therefore \text{Wages of 15 men, 21 women and 30 children for 18 weeks} = [(15 \times 3x) + (21 \times 2x) + (30 \times x)] \times 18 \times 7$$

$$= 117 \times \frac{1}{2} \times 126$$

$$= 117 \times 63 = \text{Rs. } 7,371$$

$$\Rightarrow \text{Ans - (A)}$$

11. D

Time taken by X to reach Y's house = 25 minutes and by Y to reach X's house = 50 min

Ratio of time taken = 1 : 2

\therefore speed is inversely proportional to time, let speed of X = $2x$ km/min and speed of Y = x km/min and distance between their houses = $2d$ km

Using, speed = distance/time

$$\Rightarrow x = \frac{2d}{50} = \frac{d}{25}$$

$$\Rightarrow \frac{d}{x} = 25 \text{ -----(i)}$$

Now, time taken by Y to travel d km, i.e. mid way = $\frac{d}{x}$

= 25 minutes

Now, time taken by X to travel d km, i.e. mid way = $\frac{d}{2x}$

= 12.5 minutes

So, the correct answer is $25 - 12.5 = 12.5$ minutes

\Rightarrow Ans - (D)

12. D

Principal sum to be borrowed = Rs. 25,000

Amount when compounded annually = $P(1 + \frac{R}{100})^T$

\Rightarrow Amount to be paid after 3 years = $25,000(1 + \frac{3}{100})(1 + \frac{4}{100})(1 + \frac{5}{100})$

$$= 250 \times 103 \times \frac{26}{25} \times \frac{21}{20}$$

$$= 103 \times 13 \times 21 = \text{Rs. } 28,119$$

\Rightarrow Ans - (D)

13. B

Two successive discounts of x and $y \equiv x + y - \frac{xy}{100}$

$$= 12 + 8 - \frac{12 \times 8}{100}$$

$$= 20 - 0.96 = 19.04\%$$

\Rightarrow Ans - (B)

14. A

Let cost price of each article = Rs. 100 and number of articles sold be x

\Rightarrow Original selling price = Rs. 125

\Rightarrow Original profit = Rs. $(125 - 100)x = \text{Rs. } 25x$

After offering discount of 8%, \Rightarrow New selling price = $\frac{92}{100} \times 125 = \text{Rs. } 115$

Also, new cost price = $\frac{95}{100} \times 100 = \text{Rs. } 95$

\therefore Sale increases by 25%, \Rightarrow Number of articles now sold = $1.25x$

\Rightarrow New profit = Rs. $(115 - 95) \times 1.25x = \text{Rs. } 25x$

\therefore There is no change in profit.

=> Ans - (A)

15. A

Probability of brother's selection = $\frac{1}{8}$ and probability of brother's rejection = $\frac{7}{8}$

Probability of sister's selection = $\frac{1}{5}$ and probability of sister's rejection = $\frac{4}{5}$

Probability that only one of them is selected = (prob. that brother is selected) \times (prob. that sister is not selected) + (Prob. that brother is not selected) \times (Prob. that sister is selected)

$$= \left(\frac{1}{8}\right)\left(\frac{4}{5}\right) + \left(\frac{7}{8}\right)\left(\frac{1}{5}\right)$$

$$= \frac{4}{40} + \frac{7}{40} = \frac{11}{40}$$

=> Ans - (A)

16. D

Let Steve's salary = Rs. 10

$$\Rightarrow \text{John's salary} = \frac{80}{100} \times 10 = \text{Rs. } 8$$

$$\Rightarrow \text{Tom's salary} = \frac{150}{100} \times 8 = \text{Rs. } 12$$

$$\therefore \text{Ratio of Steve's salary to Tom's salary} = \frac{10}{12} = 5 : 6$$

=> Ans - (D)

17. B

There are 2 physics teacher. They can stand in a row in $P(2, 2) = 2! = 2 \times 1 = 2$ ways

Similarly, the two Chemistry and Mathematics teacher can stand in 2 ways each.

These three sets can be arranged in themselves in $3! = 3 \times 2 \times 1 = 6$ ways

$$\Rightarrow \text{Required number of ways} = 2 \times 2 \times 2 \times 6 = 48$$

=> Ans - (B)

18. B

$$\text{Sum of ages of A, B, C and D five years ago} = 45 \times 4 = 180$$

$$\text{Sum of their present ages} = 180 + (5 \times 4) = 200$$

$$\text{Sum of present ages of all five (including X)} = 49 \times 5 = 245$$

$$\Rightarrow \text{Present age of X} = 245 - 200 = 45 \text{ years}$$

=> Ans - (B)

19. **B**

In a triangle, the sum of two sides is always greater than the third side.

In the last two options, sum of first two sides is less than third side, and in first two options sum is equal to third side, hence these three are not possible.

Thus, possible lengths of triangle = [5,7,9]

=> Ans - (B)

20. **D**

Taking the vowels (EA) as one letter, the given word has the letters XTR (EA), i.e., 4 letters.

These letters can be arranged in $4! = 24$ ways

The letters EA may be arranged amongst themselves in $2! = 2$ ways.

Number of arrangements having vowels together = $(24 \times 2) = 48$ ways

Total arrangements of all letters = $5! = 120$ ways

=> Number of arrangements not having vowels together = $(120 - 48) = 72$ ways

=> Ans - (D)

21. **B**

Water capacity for 50 days is

$$33000 \times 50 = 1650000 \text{-----(1)}$$

water capacity for 35 days is

$$37000 \times 35 = 1295000 \text{-----(2)}$$

Let the minimum water to be used is K litres

so, $K \times 15 = 355000$

$$K = \frac{355000}{15}$$

$K = 23666.66$ litres.

Therefore, estimation of how much minimum water should be used daily so that it could last 50 days is 23666.66liters.

22. **A**

Number of boys in school D in the year 2017 = 530

Number of boys in school D in the year 2016 = 640

$$\Rightarrow \text{Required percent decrease} = \frac{640 - 530}{640} \times 100$$

$$= \frac{1100}{64} \approx 17\%$$

=> Ans - (A)

23. **B**

The number of girls in school B in the year 2018 = 590

Total number of students in school E in the year 2015 = 550+360 = 910

$$\Rightarrow \text{Required \%} = \frac{590}{910} \times 100 \approx 65\%$$

=> Ans - (B)

24. A

Total number of girls in school A in all years taken together = 360+420+690+960+1290+1440 = 5160

$$\Rightarrow \text{Required average} = \frac{5160}{6} = 860$$

=> Ans - (A)

25. A

Number of boys in school C in the year 2018 = 870

Number of girls in school A in the year 2018 = 1290

$$\Rightarrow \text{Required ratio} = \frac{870}{1290} = 29 : 43$$

=> Ans - (A)

Logical Reasoning

26. D

The two words given are synonyms, meaning at a higher level, similarly only pairs of synonyms in the options are Dirty : Filthy

=> Ans - (D)

27. C

The statement is Should religion be taught in schools ?

of the options only argument in II Presents a strong case in favor of teaching religion , rest options are not very strong to consider teaching or not .

So C is the correct answer.

28. A

The pattern followed after filling all the blanks.

(A) : $a b a b a b a b a b a b$

(B) : $b a a b a a b b a b a b$

(D) : $b b a b a a b b a a a b$

If we look carefully, we can find only first option making a pattern, ab/ab/ab/ab/ab/ab

=> Ans - (A)

29. B

The pattern followed is that odd multiples of 3 (starting from 9 are added).

$$3 + 9 = 12$$

$12 + 15 = 27$

$27 + 21 = 48$

$48 + 27 = 75$

$75 + 33 = 108$

$108 + 39 = \mathbf{147}$

=> Ans - (B)

30. **B**

Expression = FJUL : BOQQ :: LHRX :

The pattern followed is :

F $\xrightarrow{-4}$ B

J $\xrightarrow{+5}$ O

U $\xrightarrow{-4}$ Q

L $\xrightarrow{-5}$ Q

Similarly, LHRX : **HMNC**

L $\xrightarrow{-4}$ H

H $\xrightarrow{+5}$ M

R $\xrightarrow{-4}$ N

X $\xrightarrow{+5}$ C

=> Ans - (B)

31. **D**

The given statement begs a question whether the factories should be shifted to outskirts away from the main crowded cities, if we look at the hindsight, it will definitely help curb the pollution. Hence, I is strong because pollution control is highly desirable. II is weak. There may be some inconvenience initially but in fact their families would live better lives in the outskirts.

=> Ans - (D)

32. **D**

There are 30 red gloves and 10 green gloves, so he needs to take atleast two socks, to get a pair, now there can be one sock of each colour, so to be definite sure about a matching pair, he should once again pull out a sock, and the resulting sock will definitely match with either of the earlier ones, and he will get a pair.

Thus, he needs to take **3** to be sure for a matching pair.

=> Ans - (D)

33. **A**

RUSTICATE is written as QTTUIDBSD

The pattern followed is :

R	U	S	T	I	C	A	T	E
(-1)	(-1)	(+1)	(+1)	(+0)	(+1)	(+1)	(-1)	(-1)
Q	T	T	U	I	D	B	S	D

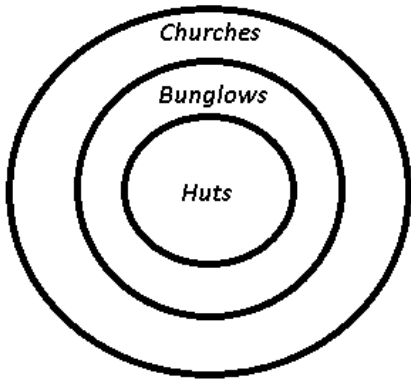
Similarly, STATISTIC :

S	T	A	T	I	S	T	I	C
(-1)	(-1)	(+1)	(+1)	(+0)	(+1)	(+1)	(-1)	(-1)
R	S	B	U	I	T	U	H	B

=> Ans - (A)

34. D

Venn diagram for above statements is :



Conclusions:

I. Some churches are huts = true

II. Some churches are bungalows = true

Thus, both conclusion I and II follow.

=> Ans - (D)

35. D

A clasp is one which holds a bracelet, similarly relationship is observed in buckle : belt.

=> Ans - (D)

36. B

Brinjal, Papaya and cucumber have seeds but Cabbage does not have seeds.

so, Answer is option B

37. C

(A) : From the first two statements, we cannot conclude any relation between tigers and wolves.

(B) : All hens are buses, and all buses are boxes, thus all hens are boxes, and not the other way around.

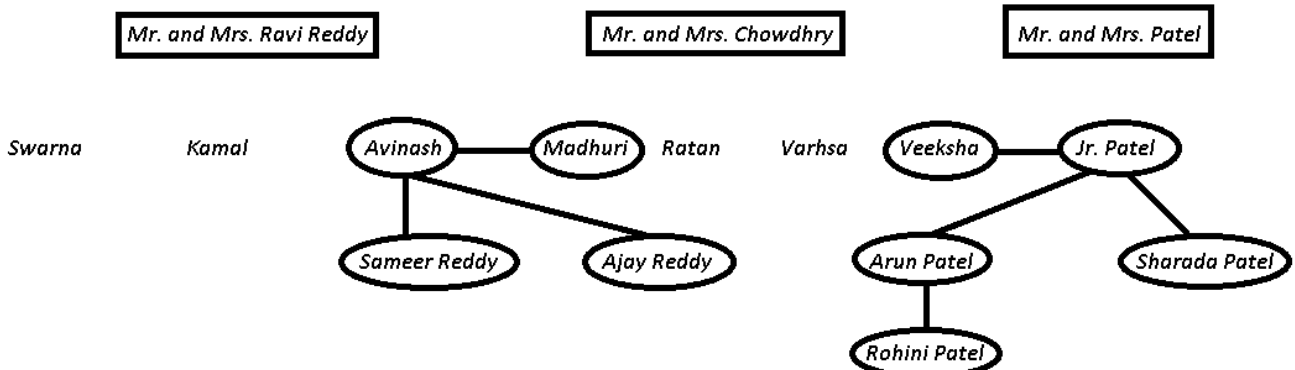
(C) : The first two statements matches with the conclusion that all ABC can run.

(D) : There is no defined relation between peaches and red.

=> Ans - (C)

38. D

The above statements when represented in pictorial graph is :

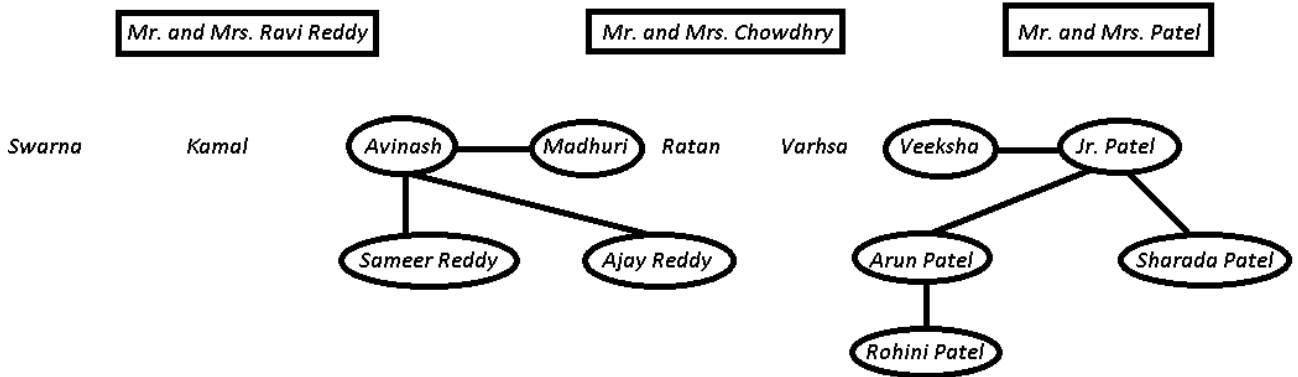


Thus, Surname of Rohini is Patel.

=> Ans - (D)

39. A

The above statements when represented in pictorial graph is :

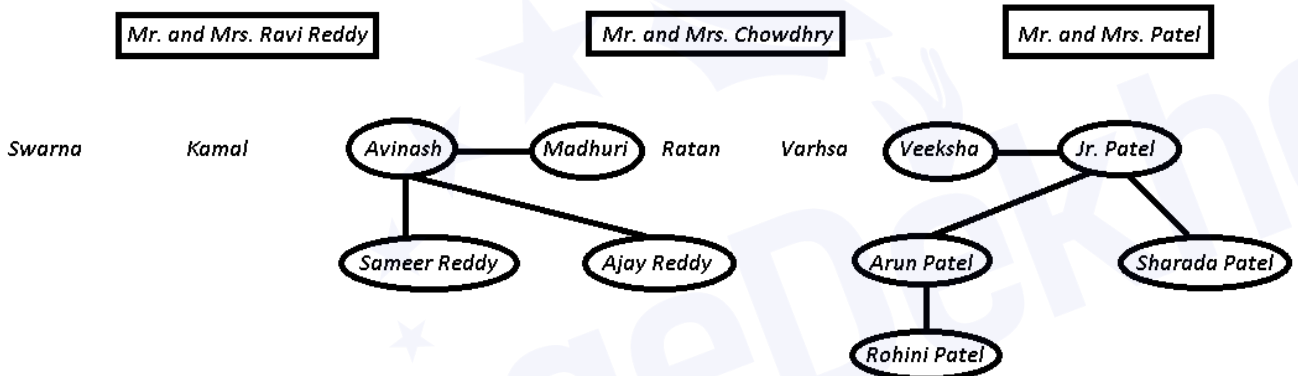


Thus, Sameer is **grandson** of Madhuri's father.

=> Ans - (A)

40. D

The above statements when represented in pictorial graph is :

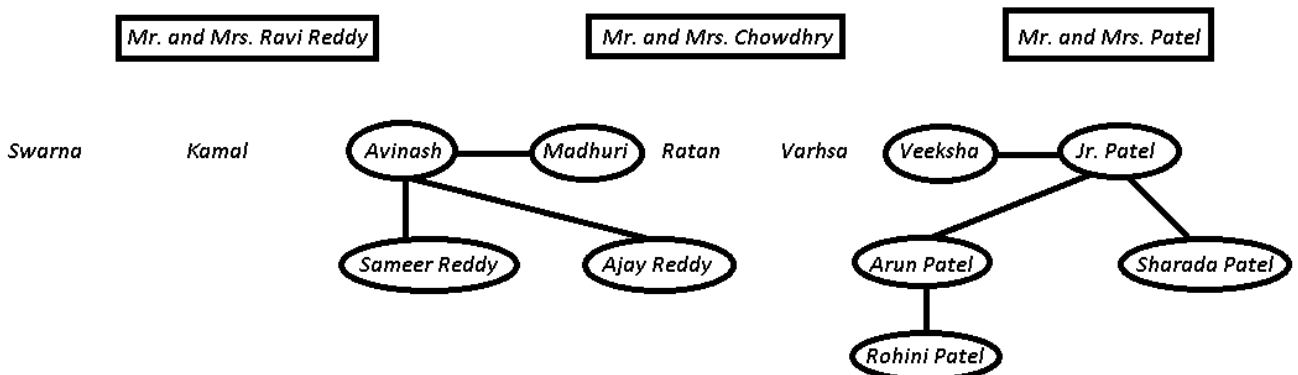


Thus, Surname of Sameer is Reddy.

=> Ans - (D)

41. C

The above statements when represented in pictorial graph is :



Thus, Mrs. Chowdhry is **mother-in-law** of Avinash.

=> Ans - (C)

42. **D**

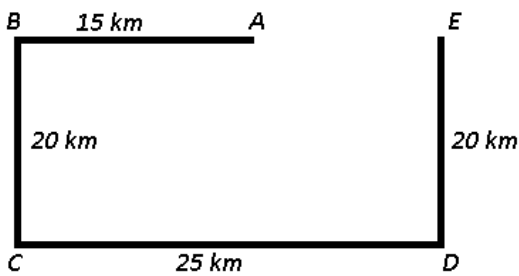
ZABCDEFGHIJKLMN**O**PQRSTUVWXYZ

Eighth to the right of the fourteenth letter from the right end = 6th letter from right end = **T**

=> Ans - (D)

43. **D**

Let Saritha starts from point A and went 15 km to the West from her house to reach B, then turned left and walked 20 km southwards to reach C. She then turned East and walked 25 km to go to D and finally turning left covered 20 km to finally stop at E.



Thus, she is **10 km** east of her house.

=> Ans - (D)

44. **B**

The correct order as silkworm produces silk and then after yarn, in the end saree is made :

Silkworm -> Silk -> Yarn -> cloth -> Saree

=> Ans - (B)

45. **A**

In the first pair of pictures, a triangle is formed by joining two hypotenuse triangles, and the second picture shows left side triangle with a shade, similarly, for the two semi circles, we need one on the left side, i.e. curve on left with grey shade, as shown in first figure.

=> Ans - (A)

46. **D**

According to Ayushman : Koti was more than ten kilometres but less than 15 kilometres from there

=> Possible values = [11,12,13,14]

Similarly, According to Smitha, it was more than 12 kilometres but less than fourteen kilometres from there.

=> Possible values = [13]

If both of them were correct, combining above sets, we get the require distance = **13 km**

=> Ans - (D)

47. **C**

As per the pattern



will be the next figure .

48. **D**

In each row, the pattern followed is there are consecutive even or odd numbers as

(9,11,13), (13,15,17), (10,12,14)

Similarly, the missing series will be : 14,16,18 and 11,13,15

Thus, missing values = **18, 15**

=> Ans - (D)

49. **C**

Generally, every shirt has a collar and a pocket, but these two are different from each other, thus the venn diagram that best describes above relation is :



=> Ans - (C)

50. **C**

(A) : $16T2R4U6X8$

$$\equiv 16 \times 2 + 4 \div 6 < 8$$

L.H.S. = $32 + \frac{2}{3} = 32.67$ which is greater than 8, hence it is not correct.

(B) : $16U2R4S6W8$

$$\equiv 16 \div 2 + 4 - 6 > 8$$

L.H.S. = $8 - 2 = 6$ which is less than 8, hence it is also not correct.

(C) : $16R2S4V6R8$

$$\equiv 16 + 2 - 4 = 6 + 8$$

$$\text{L.H.S.} = 18 - 4 = 14$$

$$\text{R.H.S.} = 6 + 8 = 14$$

\therefore L.H.S. = R.H.S., hence it is correct.

=> Ans - (C)

Language Comprehension

51. **D**

From the lines of the passage, "...His influence was multiplied a thousandfold by his imprisonment, and his speech and his pen had acquired much greater power after he was discharged than before his imprisonment...", it can be inferred that it was Tilak's speech and the news of his imprisonment, which increased his influence in big proportions.

Options A, B and C do not reflect the main reason for Tilak's unprecedented increase in influence and hence are not the most appropriate choices.

Option D mentions one of the two aspects of Tilak's increased influence and hence, is the correct answer.

52. **A**

Option A is the direct inference from the ending lines of the passage; "...Today, his message rules millions of hearts which are determined to raise permanent a living memorial by the fulfilment of his ambition in their lives.".

Thus, the correct answer is option A.

53. **A**

From the lines of the last paragraph, "...Critics like me would perhaps be still finding fault in the expression of *this or that*.", it can be inferred that generally, critics find a reason to condemn the reform writers on any random interpretation of their writings or speeches. Option A aptly captures this idea.

Options B and C are nowhere mentioned in the passage.

Although option D can be potentially misunderstood as a possible inference from the last paragraph, it is a distorted inference. The reason behind the critics finding faults in a reform writer's composition is to condemn them.

Thus, the correct answer is option A.

54. **D**

From the first paragraph, it can be inferred that for a reformer to be effective, their writing should be the extension of their exemplary lives. Since option D aptly captures this idea,

The correct answer is option D.

55. **B**

From the first paragraph of the passage, we can infer that the people whose writing is an extension of their exemplary lives can be moral in their personal lives and lack in public.

Hence, the answer is option B.

56. **A**

From the first paragraph of the passage, we get that Tilak and reformers lead exemplary lives. They were lacking in their public life, but moral in their personal lives. Their writing was an extension of their lives.

Hence, the answer is option A.

57. **A**

Foreign is the correctly spelt word.

Answer is option A.

58. **C**

meddle is to interfere in something without permission.

Answer is option C.

59. **A**

Keeps an open house - Welcome visitors any time

In this question, option A is most appropriate answer.

60. **A**

stir up a hornet's nest - to create a difficult situation

Answer is option A.

61. **D**

commissioned - started, sanctioned

Terminated is the opposite of the given word.

Answer is option D.

62. **D**

An Anarchist is the one who believes in no Government and therefore incites disorder in a state.

Answer is option D.

63. **C**

The word that will fill the first blank must be complementary to the word "Confused". Out of the given options, "incoherent" is the best choice. Also, filling both the blanks with option C forms a grammatically sound sentence.

Hence, the answer is option C.

64. **A**

Albeit - though, although, even-though

Answer is option A.

65. **A**

B: "to be he" is grammatically incorrect.

C: "anticipate" is a wrong choice to replace "want"

D: "desire" is also the wrong word to replace "want"

Option A is the correct answer.

66. **B**

Only option B forms a coherent sequence as "in so far as it focuses attention on development expenses / in the budget in artificial / but there is some merit in it / the bifurcation of plan and non-plan funds / as distinct from consumption "

67. **A**

utopia - imagined place or things

Similarly, utopian idea is an imaginary idea.

Answer is option A.

68. **A**

C and A form a logical pair as the "It" in A refers to "Team work" in C.

Similarly, B and D form a logical pair as the "It" in D refers to the "cause or purpose" mentioned in B.

As C mentions "Team Work", it is a better opening statement than B.

Hence, the correct order is CABD.

69. **D**

fratricide - killing of one's brother or sister

Answer is option D.

70. **B**

Clemency means Kindness, Mercy

The opposite of Clemency is cruelty, brutality

Therefore answer is option b.

71. **B**

Let us see the meaning of the given words

Word	Meaning
Titular	Holding or constituting a purely formal position or title without any real authority.
Hypothetical	being or involving a hypothesis. Hypothesis is a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation.
Nominal	(of a role or status) Existing in name only

While 'titular', 'former' and 'nominal' are possible options for the first blank, 'competition' is totally out of context for the second blank.

Now we are down to two choices, (B) or (D). One does not 'have pride' but 'takes pride' in the formulation of company policy.

Moreover, the sentence subtly indicates a non-appreciative tone in reference to the head of the organization.

Hence, option (D) would fit the blank.

72. **D**

Immortal - living forever, one who cannot die

Answer is option D.

73. **B**

The last part of the sentence, "when his laptop crashed", indicates that the event took place in the past perfect tense. Out of the given options, only option B satisfies.

74. **D**

voracious - having a huge appetite, excessively eager

Among the given options, ravenous is the most appropriate one.

Answer is option D.

75. **D**

Wreak means to cause the infliction of

Therefore, answer is D

General Awareness

76. **B**

The Paradoxical Prime Minister: Narendra Modi And His India is a 2018 non-fiction book written by senior leader of the Indian National Congress, Shashi Tharoor, about the Prime Minister of India, Narendra Modi.

77. **C**

VAIO was originally a brand of **Sony**, introduced in 1996

83. **D**

CollegeDekho

Epigraphy (Ancient Greek: ἐπιγραφή), "**inscription**", is the **study of inscriptions**

86. **A**

The world's longest station platform is at Gorakhpur Junction in India at 1,355.40 metres (**4481.627ft**)

90. **C**

The **Rigveda Samhita** is the oldest extant Indic text. It is a collection of 1,028 Vedic Sanskrit hymns and 10,600 verses in all, organized into ten books

92. **A**

The International Booker Prize is awarded annually for a single work of **fiction**, translated into English and published in the UK by a registered imprint. Both works of long form **fiction** and collections of short stories are eligible.

94. **D**

Chikan embroidery is produced in the **city of Lucknow**, the capital of the state of Uttar Pradesh, India.

95. **D**

If you fire a bullet vertically upwards, it may rise as high as 10000 feet or around 2.7 km. When the bullet is fired it has Kinetic energy and the direction is vertically upward. The bullet continues to **lose** Kinetic energy and **gains** potential energy at higher heights.

Therefore answer is option D

96. **B**

Kodaikanal is one of the very popular holiday destination hill resorts in South India. This hill station stands 7200 feet above sea level and situated in upper **palani hills** of the **westernghats** near Madurai in Tamil Nadu. Kodaikanal is also popularly known as the princes of Hill Stations.

99. **D**

The equator is the **circle** that is equidistant from the North Pole and South Pole. It divides the **Earth** into the Northern Hemisphere and the Southern Hemisphere. Of the parallels or **circles** of latitude, it is **the longest**, and the only 'great **circle**' (a **circle on the surface** of the **Earth**, centered on **Earth's** center).