120. What is the ultimate purpose of Defragmentation?
(A) Make the PC faster
(B) Create More Free Space
(C) Delete temporary files
(D) Reduce Power consumption
(E) All of the above

121. All of the following are examples of real security and privacy risks EXCEPT:
A. hackers.
B. spam.
C. viruses.
D. identity theft.

122. A process known as _____ is used by large retailers to study trends.
A. data mining
B. data selection
C. POS
D. data conversion

123. _____ terminals (formerly known as cash registers) are often connected to complex inventory and sales computer systems.
A. Data
B. Point-of-sale (POS)
C. Sales
D. Query

124. An _____ system is a small, wireless handheld computer that scans an item's tag and pulls up the current price (and any special offers) as you shop.
A. PSS
B. POS
C. inventory
D. data mining

125. The ability to recover and read deleted or damaged files from a criminal's computer is an example of a law enforcement specialty called:
A. robotics.
B. simulation.
C. computer forensics.
D. animation.

126. Which of the following is NOT one of the four major data processing functions of a computer?
A. gathering data
B. processing data into information
C. analyzing the data or information
D. storing the data or information

127. _____ tags, when placed on an animal, can be used to record and track in a database all of the animal's movements.
A. POS
B. RFID
C. PPS
D. GPS

128. Surgeons can perform delicate operations by manipulating devices through computers instead of manually. This technology is known as:
A. robotics.
B. computer forensics.
C. simulation.
D. forecasting.

129. Technology no longer protected by copyright, available to everyone, is considered to be:
A. proprietary.
B. open.
C. experimental.
D. in the public domain.

130. _____ is the study of molecules and structures whose size ranges from 1 to 100 nanometers.
A. Nanoscience
B. Microelectrodes
C. Computer forensics
D. Artificial intelligence

131. _____ is the science that attempts to produce machines that display the same type of intelligence that humans do.
A. Nanoscience
B. Nanotechnology
C. Simulation
D. Artificial intelligence (AI)

132. _____ is data that has been organized or presented in a meaningful fashion.
A. A process
B. Software
C. Storage
D. Information

133. The name for the way that computers manipulate data into information is called:
A. programming.
B. processing.
C. storing.
D. organizing.

134. Computers gather data, which means that they allow users to _____ data.
A. present
B. input
C. output
D. store

135. After a picture has been taken with a digital camera and processed appropriately, the actual print of the picture is considered:
A. data.
B. output.
C. input.
D. the process.

136. Computers use the _____ language to process data.
A. processing
B. kilobyte
C. binary
D. representational

137. Computers process data into information by working exclusively with:
A. multimedia.
B. words.
C. characters.
D. numbers.

138. In the binary language each letter of the alphabet, each number and each special character is made up

of a unique combination of:
A. eight bytes.
B. eight kilobytes.
C. eight characters.
D. eight bits.

139. The term bit is short for:
A. megabyte.
B. binary language.
C. binary digit.
D. binary number.

140. A string of eight 0s and 1s is called a:
A. megabyte.
B. byte.
C. kilobyte.
D. gigabyte.

141. A _____ is approximately one billion bytes.
A. kilobyte
B. bit
C. gigabyte
D. megabyte

142. A _____ is approximately a million bytes.
A. gigabyte
B. kilobyte
C. megabyte

D. terabyte

143. _____ is any part of the computer that you can physically touch.
A. Hardware
B. A device
C. A peripheral
D. An application

144. The components that process data are located in the:
A. input devices.
B. output devices.
C. system unit.
D. storage component.

145. All of the following are examples of input devices EXCEPT a:
A. scanner.
B. mouse.
C. keyboard.
D. printer.

146. Which of the following is an example of an input device?
A. scanner
B. speaker
C. CD
D. printer

147. All of the following are examples of storage devices EXCEPT:
A. hard disk drives.
B. printers.
C. floppy disk drives.
D. CD drives.
Answer: B

148. The _____, also called the brain of the computer, is responsible for processing data.
A. motherboard
B. memory
C. RAM
D. central processing unit (CPU)

149. The CPU and memory are located on the:
A. expansion board.
B. motherboard.
C. storage device.
D. output device.

150. Word processing, spreadsheet, and photo-editing are examples of:
A. application software.
B. system software.
C. operating system software.
D. platform software.

TEST-IV :
ENGLISH LANGUAGE

Directions (151-165) : Read the following passage very carefully and answer the questions given below appropriately. There are certain words in the passage printed in **bold** letters to lead you to find them out easily in order to help you in answering some of the questions.

I worked as health secretary for about five years from the middle of 1962 to the middle of 1967. Thereafter I worked as finance secretary until the end of 1969. Indiscipline was rampant in the health department. **Intense** lobbying to secure plum postings was the order of the day. Ministers, legislators, senior officers and other influential people openly pleaded the cause of their proteges. The Health Minister was an honest, well-meaning politician. He approved my proposals to bring about some system and objectivity in postings and transfers and put an end to lobbying. But those efforts met with only limited success. Doctors succeeded in getting desired postings by resorting to bribery. On the eve of the elections, the then minister sent down over 100 transfer orders from his camp office. They were in **conflict** with the guidelines and quite a few were confusing in as much as two doctors were posted to the same place, or one person was posted to more than one post. I did not carry out the orders. I submitted a note to Chief Minister through the Chief Secretary pointing out why the orders should not be implemented. The Chief Secretary **supported** me. The Chief Minister decided that the minister's orders should not be implemented. All the doctors who had paid money were disappointed. In several other departments also corruption became widespread. In the works departments corruption had existed since a long time in the matter of awarding contracts. Now bribes were freely offered to secure transfer to particular posts; and even for getting **promotions.**

As Finance Secretary I found that the finances of the state were in a **precarious** condition. Financial **discipline** had evaporated. Long before the advent of the wireless and the telephone, the British had included in the Treasury Code a rule (Rule 27) empowering collectors to draw money from the treasury to meet emergencies like floods, earthquakes, **devastating** fires, etc. To my dismay I found that collectors were freely drawing money for all manner of **trivial** purposes under Rule 27 of the Treasury Code. In one case a collector had drawn money under the rule to buy a staff car for the SDO of another district. All checks and balances had disappeared. There was no accountability and any one could do what he pleased. Resorting to a number of **harsh** measures I could restore a measure of financial discipline. But the administration continued to be in disarray.

151. How, many years did the author work as health secretary ?
(1) He worked as health secretary until the end of 1969
(2) He worked as health secretary before he took over as finance secretary
(3) He worked as health secretary till the health minister was found to be a man of integrity
(4) He worked as health secretary for about five years
(5) He did not work as health secretary at all

152. According to the author what was the order of the day ?
(1) Strict discipline
(2) Cut throat competition
(3) Racial discrimination
(4) Intense lobbying
(5) None of these

153. How did the doctors succeed in getting desired postings ?
(1) Through dedicated service
(2) By working in the health minister's constituency
(3) By joining hands with the underworld criminals
(4) By resorting to sycophancy
(5) By resorting to bribery

154. When the health minister sent down 100 transfer orders from his camp office, how did the author react?
(A) He immediately obeyed the minister
(B) He did not carry out the orders
(C) He submitted a note to Chief Minister through the Chief Secretary

(1) Only (A)
(2) Only (B)
(3) Only (A) & (B)
(4) Only (B) & (C)
(5) Only (A) & (C)

155. What happened when the Chief Minister decided that the minister's orders should not be implemented ?
(1) The author was very happy
(2) The author arranged a tea party to celebrate his victory
(3) The doctors resigned and left the hospitals
(4) The health minister submitted his resignation
(5) All the doctors who had paid money were disappointed

Directions (156-165) : Choose the word which is **MOST OPPOSITE** in meaning of the word given in **bold** as used in the passage.

156. Intense
(1) Active   (2) Vigorous
(3) Feeble   (4) Inferior
(5) Devise

157. Success
(1) Defeat   (2) Succeed
(3) Abrupt   (4) Failure
(5) Difficult

158. Conflict
(1) Conformity
(2) Disagreement
(3) Attest   (4) Combat
(5) Manifest

159. Supported
(1) Advocated   (2) Betrayed
(3) Opposed   (4) Abandoned
(5) Proposed

160. Promotion
(1) Premonition (2) Facilitate
(3) Demotion   (4) Obstruction
(5) Encourage

161. Precarious
(1) Menacing   (2) Threatening
(3) Secured   (4) Firmly
(5) Unsafe

162. Discipline
(1) Orderly   (2) Restrain
(3) Indiscipline   (4) Turbulence
(5) Confusion

163. Devastating
(1) Ravaging   (2) Wrecking
(3) Refreshing   (4) Restoring
(5) Replenishing

164. Trivial
(1) Perilous (2) Frivolous
(3) Important (4) Weighty
(5) Momentous

165. Harsh
(1) Peculiar (2) Blunt
(3) Mild (4) Melodious
(5) Coarse

Directions (166-175) : In the following passage, there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

With the (166) of Indian economy (167) various reforms initiated, banking sector (168), a pivotal role in the process of achieving (169) economic growth and also in (170) the social well being at large. The Public sector (171) in India have the twin tasks ahead of meeting the social banking (172) and at the same time generating (173) profits to meet the costs associated with growth. At present, banks have more than 76.1 per cent of their total branch (174) in rural and semi-urban (175).

166. (1) nationalization
(2) expansion
(3) liberalization
(4) computerization
(5) accommodation

167. (1) from (2) over
(3) between (4) through
(5) thorough

168. (1) manages (2) occupies
(3) facilitates (4) naturalize
(5) conquers

169. (1) fewer (2) fantastic
(3) higher (4) lower
(5) lesser

170. (1) increasing (2) enhancing
(3) encouraging
(4) improving (5) innovating

171. (1) organizations
(2) companies
(3) corporations
(4) banks
(5) institutions

172. (1) limitations
(2) obligations
(3) derivatives (4) facilities
(5) liabilities

173. (1) beautiful (2) lumpsum
(3) adequate (4) wonderful
(5) everlasting

174. (1) map (2) scenario
(3) network (4) system
(5) graph

175. (1) households (2) residences
(3) areas (4) locals
(5) suburbs

Directions (176-185) : In each question below, four words which are numbered (1),(2), (3) and (4) have been printed of which one may be wrongly spelt. The number of that word is answer. If all the four words are correctly spelt, mark (5) i.e. 'All correct' as the answer.

176. (1) Profesion (2) Justice
(3) Riot (4) Assembly
(5) All correct

177. (1) Shoddy (2) Affair
(3) Parade (4) Beard
(5) All correct

178. (1) Machstick (2) Death
(3) Birth (4) Spark
(5) All correct

179. (1) Suspect (2) Rope
(3) Religious (4) Ecsplode
(5) All correct

180. (1) Confident (2) Strach
(3) Road (4) Hire
(5) All correct

181. (1) Village (2) Pattrol
(3) Parole (4) Enough
(5) All correct

182. (1) Partition
(2) Independence
(3) Foreigner (4) Tricolour
(5) All correct

183. (1) Appointment (2) Broad
(3) Commisioner (4) Arrival
(5) All Correct

184. (1) Welcom (2) Urgent
(3) Introduce (4) Smile
(5) All correct

185. (1) Incarnation (2) Adoration
(3) Administation
(4) Authorization
(5) All correct

Directions (186-190) : Pick out the most effective word from the given words to make the sentence meaningfully complete.

186. I will _____ them for saving me from the agonies of old age.
(1) fire (2) beat
(3) thank (4) admonish
(5) shout

187. I have not done things which anyone else may feel are _____ recording.

188. I was handed _____ to Bhai Hari Singh.
(1) back (2) over
(3) through (4) upon
(5) again

189. We were _____ with the names of notorious criminals.
(1) constantly (2) convenient
(3) familiar (4) obvious
(5) ignorant

190. I do not know what _____ my father choose that particular school.
(1) happened (2) controlled
(3) made (4) asked
(5) thrilled

Directions (191-200) : Read each sentence to find out whether there is any grammatical/idiomatic/spelling mistake/error in it. The error, if any, will be in one part of the sentence. Mark the number of that part with error as your answer. If there is no error, mark (5).

191. I have citicize (1)/ the remarkable book (2)/ because I benefited (3)/ from reading it. (4) No error (5)

192. As Arundhati Roy (1)/ in her foreword write (2)/ John offers (3)/untold stories of people. (4) No error (5)

193. Citizens needed (1)/ to know that (2)/ our leader cannot (3)/ be trusted. (4) No error (5)

194. Responsibilities includes (1)/ working with the editors (2)/ on all aspects (3)/ of the editorial process. (4) No error (5)

195. We build a simple model (1)/ to test whether (2)/ there is a phase change (3)/ in the Indian economy. (4) No error (5)

196. Our results (1)/ indicate that (2)/ 1991 marked (3)/ the end of an era. (4) No error (5)

197. While grouping the words (1)/ care have been taken (2)/ to include the role (3)/ grammar plays in a language. (4) No error (5)

198. Between the years (1)/ 1952 to 1962 (2)/ I worked in the field (3)/ as sub-divisional officer. (4) No error (5)

199. The Chief Minister (1)/ was obliged (2)/ to honour the promise (3)/ made during the contest. (4) No error (5)

200. Distrust seems (1)/ to be a factor (2)/ borne out of (3)/ prevailing circumstances. (4) No error (5)

For 188-190:
(1) useless (2) worth
(3) good (4) historic
(5) bad

1

1. (4)	2. (5)	3. (2)	4. (1)
5. (1)	6. (1)	7. (4)	8. (4)
9. (2)	10. (5)	11. (4)	12. (2)
13. (1)	14. (5)	15. (2)	16. (1)
17. (2)	18. (1)	19. (3)	20. (5)
21. (4)	22. (1)	-23. (3)	24. (2)
25. (2)	26. (2)	27. (4)	28. (3)
29. (5)	30. (1)	31. (3)	32. (5)
33. (1)	34. (2)	35. (4)	36. (1)
37. (4)	38. (5)	39. (3)	40. (4)
41. (4)	42. (2)	43. (4)	44. (3)
45. (1)	46. (2)	47. (5)	48. (5)
49. (3)	50. (4)	51. (2)	52. (1)
53. (3)	54. (5)	55. (4)	56. (2)
57. (5)	58. (1)	59. (3)	60. (4)
61. (3)	62. (4)	63. (1)	64. (2)
65. (3)	66. (5)	67. (2)	68. (4)
69. (1)	70. (5)	71. (1)	72. (3)
73. (4)	74. (2)	75. (5)	76. (2)
77. (4)	78. (1)	79. (5)	80. (2)
81. (1)	82. (3)	83. (5)	84. (5)
85. (4)	86. (1)	87. (3)	88. (4)
89. (5)	90. (2)	91. (4)	92. (1)
93. (2)	94. (3)	95. (5)	96. (4)
97. (1)	98. (2)	99. (5)	100. (3)

157. (4)	158. (1)	159. (3)	160. (3)
161. (3)	162. (2)	163. (3)	164. (5)
165. (3)	166. (3)	167. (4)	168. (2)
169. (3)	170. (4)	171. (4)	172. (2)
173. (3)	174. (3)	175. (3)	176. (1)
177. (5)	178. (1)	179. (4)	180. (2)
181. (2)	182. (5)	183. (3)	184. (1)
185. (3)	186. (3)	187. (2)	188. (2)
189. (3)	190. (3)	191. (1)	192. (2)
193. (1)	194. (1)	195. (5)	196. (5)
197. (2)	198. (5)	199. (5)	200. (3)

151. (4)	152. (4)		
153. (5)	154. (4)	155. (5)	156. (3)

EXPLANATIONS

1.(4) R O A M I N G

Similarly,

P L A T E A U
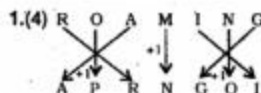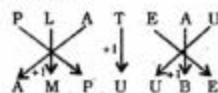
2.(5) Except dog, all other animals are Vegetarians.

3.(2) Meaningful words ⇒ POTS, POST

4.(1) The child of mother is referred to as offspring. Similarly, the nascent form of tree is called sapling.

5.(1) S P R I N G
↓ ↓ ↓ ↓ ↓ ↓
2 % @ 4 =

And,

G O N E
↓ ↓ ↓ ↓
= 7 4 ©

Therefore,

S I G N
↓ ↓ ↓ ↓
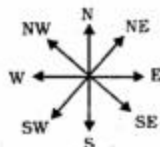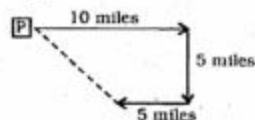# @ = 4

6.(1) June is a name of month.

7.(4) We can see dates in calendar. Similarly, we can see time in clock.

8.(4) Raju is the only son of Ayesha's maternal uncle's wife.

Therefore, Raju is the cousion brother of Ayesha.

The sex of Ayesha is not given.

9.(2)

It is clear from the diagram that point P is in North-West direction.

10.(5) 23 is a Prime Number. All other numbers are multiples of 3.

$21 = 3 \times 7; 51 = 3 \times 17$
$63 = 3 \times 21; 15 = 3 \times 5$

11.(4) The colour of milk is white. But here white is called yellow.

12.(2)
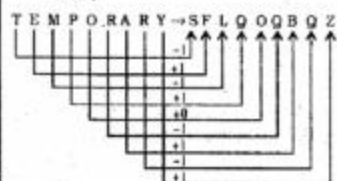
3 15 14 20 18 15 12
C O N T R O L

13.(1) W > T > M and V is the thinnest.
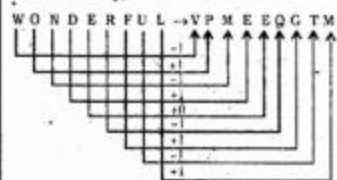
Thus, W > T > M > V

K or W is not the fattest. Therefore, O is the fattest.

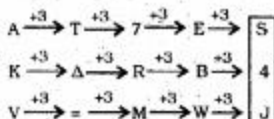K or W is not the fattest. Therefor, O is the fattest.

14.(5)

TEMPORARY →SFLQOQBQZ

Similarly,

WONDERFUL →VPMEEQGTM

15.(2) Teachers train students. Similarly, coach trains players.

16.(1)

Symbol	Number	Vowel

There is no such combination.

2

17.(2)

$$A \xrightarrow{+3} T \xrightarrow{+3} 7 \xrightarrow{+3} E \xrightarrow{+3} \boxed{S}$$
$$K \xrightarrow{+3} \Delta \xrightarrow{+3} R \xrightarrow{+3} B \xrightarrow{+3} \boxed{4}$$
$$V \xrightarrow{+3} = \xrightarrow{+3} M \xrightarrow{+3} W \xrightarrow{+3} \boxed{J}$$

18.(1)

Symbol	Consonant	Number

There is only one such combination : $\boxed{\beta Z 5}$

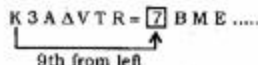**19.(3)** Sixth to the left of 18th from left means 18 − 6 = 12th from left.

But the order of the first twenty elements has been reversed. Therefore,

1st element from left has become 20th from left and vice-versa.

2nd element from left has become 19th from left and vice-versa.

3rd element from left has become 18th from left and vice-versa.

And so on.

Therefore, 9th element from the left would become the 12th from left.

$$K\ 3\ A\ \Delta\ V\ T\ R = \boxed{7}\ B\ M\ E\ \dots$$
$$\uparrow$$
9th from left

20.(5) $C \xrightarrow{-2} P \xrightarrow{+3} \beta$

$@ \xrightarrow{-2} W \xrightarrow{+3} J$

$7 \xrightarrow{-2} R \xrightarrow{+3} B$

$1 \xrightarrow{-2} 0 \xrightarrow{+3} Q$

But,

$A \xrightarrow{-1} 3 \xrightarrow{+3} V$

21.(4) First and second Premises are Particular Affirmative (I-type).

Third Premise is Universal Affirmative (A – type).

All trains are horses.

↗

Some horses are bells.

We know that,

A + I ⇒ No Conclusion

22.(1) First and second Premises are Universal Affirmative (A – type).

Third Premise is Particular Affirmative (I – type).

All roses are goats.

↘

All goats are kites.

. We know that,

A + A ⇒ A – type Conclusion

Thus, our derived Conclusion would be: "All roses are kites"

Conclusion I is the Converse of this Conclusion.

23.(3) First and third Premises are Universal Affirmative (A-type).

Second Premise is Particular Affirmative (I-type).

Some birds are classes.

↗

All classes are lions.

We know that,

I + A ⇒ I – type Conclusion

Thus, our derived Conclusion would be:

"Some birds are lions".

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

24.(2) First and third Premises are Particular Affirmative (I-type).

Second Premise is Universal Affirmative (A-type).

Some candles are papers.

↗

All papers are trees.

We know that,

I + A ⇒ I – type Conclusion

Thus, our derived Conclusion would be:

"Some candles are trees".

Some books are papers.

↗

All papers are trees.

We know that,

I + A ⇒ I – type Conclusion

Thus, our derived Conclusion would be:

"All roses are kites".

Conclusion II is the Converse of this derived Conclusion.

25.(2) First and third Premises are Universal Affirmative (A-type).

Second Premise is Particular Affirmative (I-type).

Some baloons are crows.

↗

All crows are bats.

We know that,

I + A ⇒ I – type Conclusion

Thus, our derived Conclusion would be:

"Some baloons are bats".

All crows are bats.

↗

All bats are elephants.

We know that,

A + A ⇒ A – type Conclusion

Thus, our derived Conclusion would be:

"All crows are elephants."

Conclusion II is the Converse of this derived Conclusion.

26.(2)

3	1	4	9	2	6
↓	↓	↓	↓	↓	↓
M	P	B	T	N	D

27.(4)

R	A	T	H	I	M
↓	↓	↓	↓	↓	↓
0	5	9	8	7	3

28.(3)

4	5	2	1	7	3	6
↓	↓	↓	↓	↓	↓	↓
#	A	N	P	I	M	#

29.(5)

3	4	8	0	5	7
↓	↓	↓	↓	↓	↓
$	B	H	R	A	$

30.(1)

#	A	M	P	T	#
↓	↓	↓	↓	↓	↓
Even	5	3	1	9	Even
digit					digit

(31-35) : On the basis of given information and conclusions drawn we can construct the following table :

Friends	Boy or Girl	Building	Fruit
R	Girl	Z	Apple
M	Boy	Z	Jackfruit
K	Girl	X	Mango
P	Girl	Y	Grape
L	Boy	Z	Pineapple
W	Boy	Y	Orange
B	Boy	X	Watermelon

31.(3) K likes mango.

32.(5) L, M & R stay in building Z.

33.(1) R likes apple.

34.(2) K, P and R are girl.

35.(4) B likes watermelon.

36.(1) In each subsequent figure one design is added in the corner in anticlockwise direction and after every two figures the designs of corners are inverted. In the subsequent figures respectively one and two design(s) is/are inverted in the middle.

3

37.(4) From first figure to second figure the small designs move one step in anticlockwise direction and they are enclosed by such designs if the smaller designs move in clockwise direction. Similar changes would occur from Problem Figure (5) to Answer Figure.

38.(5) Problem Figure (5) is the water image of the Problem Figure (1). Therefore, Answer Figure would be the water image of the Problem Figure (2).

39.(3) The top design descends stepwise after being rotated through 90° anticlockwise and inverted laterally and ascends in one step. After every two figures the arrow moves one step in anticlockwise direction and in each step it is rotated through 180° and then inverted laterally. Now we can eliminate Answer Figures (1), (2) and (4). The third design moves to left or right after every two figures and it changes in a set order.

40.(4) The outer design of Problem Figure (1) becomes the inner design in Problem Figure (4) and the outer design of Problem Figure (2) becomes the inner design in Problem Figure (5).

Therefore, the other design of Problem Figure (3) would become the inner design in Answer Figure. Therefore, we can eliminate the Answer Figures (2) and (3). The same pattern is followed in the case of outer design but it gets inverted.

41.(4) In the subsequent figures respectively two and three line segments change their positions in a set order.

42.(2) In the subsequent figures the plane of designs rotate through 45° anticlokwise direction and the designs interchange positions in a set order. The first design becomes the third design, the second design becomes the fourth design, the third design becomes the second design and fourth design becomes the first design and it is replaced by a new design. In the second step the fourth design in replaced with a new design.

43.(4) In the subsequent figures the arrow head moves two steps in anticlockwise direction.

44.(3) In each subsequent figure one line segment is added and design reoriented in a set order.

45.(1) In each subsequent figure all the designs move in anticlockwise direction and the first design moves to the central positions and it is replaced by a new design and the central design moves to the middle position (second position) and the last design moves to the first position.

46.(2) From Problem Figure (1) to (2) one curve and an arrow head are inverted. From Problem Figure (2) to (3) both the curves and an arrow head are inverted. From Problem Figure (3) to (4) both the arrow heads are inverted. From Problem Figure (4) to (5) both the curves and an arrow head are inverted. Therefore, from Problem Figure (5) to Answer Figure one curve and an arrow head would be inverted.

47.(5) In the subsequent figures the plane of designs rotates through 45° anticlockwise. From Problem Figure (1) to (2) the first two designs interchange positions, the third design moves to the fourth position and the fifth design moves to the third position. The fourth design moves to the fifth position and it is replaced with a new design. From Problem Figure (2) to (3) the first design moves to the second position and the third design moves to the first position. The second design moves to the third position and it is replaced with a new design. The fourth and the fifth designs interchange positions. These two steps are repeated alternately.

48.(5) From Problem Figure (1) to (2) both the designs move one step in anticlockwise direction and the first design is replaced with a new design. From Problem Figure (2) to (3) both the designs move one step in anticlockwise direction and interchange positions and one of the designs is replaced with a new design. These two steps are repeated alternately.

49.(3) Alternately the designs move one step in clockwise direction and in each subsequent figure one new design appears in front of the pre-existing designs. Alternately, the first design moves to the last and it is replaced with a new design.

50.(4) In the subsequent figures respectively three and two line segments are added in a set order.

51.(2) $3785 + ? - 4297 = 5523$
$\Rightarrow ? = 5523 + 4297 - 3785$
$= 9820 - 3785 = 6035$

52.(1) $? = 11.02 \times 8 + 1.5 \times 0.6$
$= 88.16 + 0.9$
$= 89.06$

53.(3) $? = \dfrac{3}{5}$ of $\dfrac{4}{7}$ of $\dfrac{7}{9}$ of 1380

$= \dfrac{3}{5} \times \dfrac{4}{7} \times \dfrac{7}{9} \times 1380$

$= 368$

54.(5)
$? = 75\%$ of $580 + 58\%$ of 750

$= \dfrac{75 \times 580}{100} + \dfrac{58 \times 750}{100}$

$= 435 + 435 = 870$

55.(4) $36 \times 45 + \sqrt{?} = 1700$

$\Rightarrow 1620 + \sqrt{?} = 1700$

$\Rightarrow \sqrt{?} = 1700 - 1620$

$\Rightarrow \sqrt{?} = 80$

$\Rightarrow ? = (80)^2 = 6400$

56.(2) $? = 12^2 + 16$
$= 144 + 16 = 160$

57.(5) $? = 2\dfrac{3}{5} + 4\dfrac{1}{5} - 3\dfrac{2}{5}$

$= 2 + \dfrac{3}{5} + 4 + \dfrac{1}{5} - 3 - \dfrac{2}{5}$

$= (2 + 4 - 3) + \left(\dfrac{3}{5} + \dfrac{1}{5} - \dfrac{2}{5}\right)$

$= 3 + \left(\dfrac{3+1-2}{5}\right) = 3 + \dfrac{2}{5} = 3\dfrac{2}{5}$

58.(1) $10^? = 10^{7.5} \times 10^{4.5} \div 10^2$

$= 10^{7.5} \times \dfrac{10^{4.5}}{10^2}$

$= 10^{7.5} \times (10)^{4.5-2}$
$= 10^{7.5} \times 10^{2.5}$
$= (10)^{7.5+2.5}$
$\Rightarrow 10^? = 10^{10} \Rightarrow ? = 10$

59.(3) $? = 36^2 - 24^2$
$= (36 + 24)(36 - 24)$
$= 60 \times 12 = 720$

60.(4) $? = 32 \times 15 - 1850 \div 37$

$= 480 - 1850 \times \dfrac{1}{37}$

$= 480 - 50 = 430$

61.(3) $? = 11\dfrac{2}{9} \times \dfrac{36}{101}$

$= \dfrac{101}{9} \times \dfrac{36}{101} = 4$

4

62.(4) ? = 1087.05 + 187.005 + 87.005 = 1361.06

63.(1) $\sqrt{?} + 187 = 220$

$\Rightarrow \sqrt{?} = 220 - 187$

$\Rightarrow \sqrt{?} = 33 \Rightarrow ? = 33^2 = 1089$

64.(2) $? = \dfrac{27 \times 2^3 + 18}{6}$

$= \dfrac{27 \times 8}{6 \times 18} = 2$

65.(3)

80% of 135 + ? % of 750 = 228

$\Rightarrow \dfrac{80 \times 135}{100} + \dfrac{? \times 750}{100} = 228$

$\Rightarrow 108 + \dfrac{750 \times ?}{100} = 228$

$\Rightarrow \dfrac{750 \times ?}{100} = 228 - 108$

$\Rightarrow ? = \dfrac{120 \times 100}{750} = 16$

66.(5) $? = 632 \div 8 + 11^2$

$= \dfrac{632}{8} + 121 = 79 + 121 = 200$

67.(2) ? of $\dfrac{7}{8}$ of $\dfrac{1}{3}$ of $\dfrac{2}{7} = 12$

$\Rightarrow ? = \dfrac{12 \times 8 \times 3 \times 7}{7 \times 2} = 144$

68.(4) ? = 10101.001 + 1001.01 + 101.1 = 11203.111

69.(1) ? 2310 ÷ 14 ÷ 5

$= \dfrac{2310}{14 \times 5} = 33$

70.(5) ? = 198 × 15 ÷ 30

$= \dfrac{198 \times 15}{30} = 99$

71.(1) The given series is based on the following pattern :
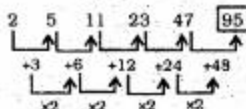
Hence, 95 will replace the question mark.

72.(3) The given series is based on the following pattern :
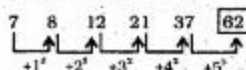
Hence, 62 will replace the question mark.

73.(4) The given series is based on the following pattern :
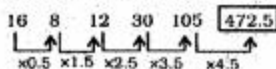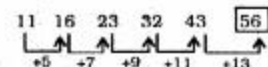

Hence, 472.5 will replace the question mark.

74.(2) The given series is based on the following pattern :
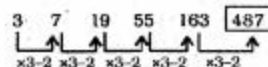
Hence, 487 will replace the question mark.

75.(5) The given series is based on the following pattern :

Hence, 56 will replace the question mark.

76.(2) Let the first and second numbers be x and y respectively.

As per given information,

40% of $x = \dfrac{3}{4} y$

$\Rightarrow \dfrac{40x}{100} = \dfrac{3y}{4}$

$\Rightarrow \dfrac{2x}{5} = \dfrac{3y}{4}$

$\Rightarrow \dfrac{x}{y} = \dfrac{3}{4} \times \dfrac{5}{2} = \dfrac{15}{8} = 15 : 8$

77.(4) When a train crosses a signal post it travels its own length.

$\therefore$ Speed $= \dfrac{360}{18} = 20$ m/sec.

$= \left(20 \times \dfrac{18}{5}\right)$ kmph

= 72 kmph

78.(1) (A + B)'s 1 day's work $= \dfrac{1}{4}$

A's 1 day's work $= \dfrac{1}{6}$

$\therefore$ B's 1 day's work $= \dfrac{1}{4} - \dfrac{1}{6}$

$= \dfrac{3 - 2}{12} = \dfrac{1}{12}$

$\therefore$ B alone can complete the work in 12 days.

79.(5) Amount $= P\left(1 + \dfrac{R}{100}\right)^T$

$= 18000\left(1 + \dfrac{10}{100}\right)^3$

$= 18000 \times \dfrac{11 \times 11 \times 11}{10 \times 10 \times 10}$

= Rs. 23958

$\therefore$ C. I. = Rs. (23958 − 18000)

= Rs. 5958

80.(2) Discount = 8% of printed price

$= \dfrac{8 \times 20000}{100} = $ Rs. 1600

$\therefore$ S.P. = Rs.(20000 − 1600)

= Rs. 18400

Gain % = 25

$\therefore$ Cost price

$= $ Rs. $\left(\dfrac{100}{125} \times 18400\right)$

= Rs. 14720

81.(1) Let the number of students in organisation X be $5x$ and that in organisation Y be $8x$.

New number of students in organisation X

$= \dfrac{120}{100} \times 5x = 6x$

New number of students in organisation Y

$= \dfrac{110 \times 8x}{100} = 8.8x$

$\therefore$ Required ratio = $6x : 8.8x$

= 60 : 88

= 15 : 22

82.(3) Let the original number be $10x + y$.

Number obtained by interchanging the digits = $10y + x$

$\therefore 10x + y - 10y - x = 18$

$\Rightarrow 9x - 9y = 18$

$\Rightarrow x - y = 2$ ...(i)

Again, $x + y = 6$ ...(ii)

From equations (i) and (ii),

$x = 4$ and $y = 2$

$\therefore$ Original number

$= 10 \times 4 + 2 = 42$

83.(5) Let Samar's monthly salary be Rs. x.

According to the question,

$x - (52 + 23)\%$ of $x = 4500$

$\Rightarrow x - 75\%$ of $x = 4500$

$\Rightarrow 25\%$ of $x = 4500$

$\Rightarrow x = \dfrac{4500 \times 100}{25} =$ Rs. 18000

84.(5) 55% of total students = 44

$\Rightarrow$ Total number of students

$= \dfrac{44 \times 100}{55} = 80$

$\therefore$ Number of boys

$= 80 - 44 = 36$

85.(4) Required average marks

$= \dfrac{45 \times 75 + 40 \times 78}{45 + 40}$

$= \dfrac{3375 + 3120}{85}$

$= \dfrac{6495}{85} = 76.41$

86.(1) Purchasing price of articles

= Rs. (245×30)

= Rs. 7350

Total cost

= Rs. $(7350 + 980 + 1470)$

= Rs. 9800

$\therefore$ C.P. per piece $= \dfrac{9800}{245}$

= Rs. 40

S.P. = Rs. 50 per piece

$\therefore$ Gain $\% = \dfrac{10}{40} \times 100 = 25$

87.(3) When difference between the compound interest and simple interest on a certain sum of money for 2 years at $r\%$ rate is Rs. x, then the sum is given by :

Sum $= x\left(\dfrac{100}{r}\right)^2$

$= 128\left(\dfrac{100}{8}\right)^2 = 128\left(\dfrac{25}{2}\right)^2$

$= \dfrac{128 \times 25 \times 25}{2 \times 2} =$ Rs. 20000

88.(4) Let the present ages of father and son be $5x$ and x years respectively.

According to the question,

$\dfrac{5x + 7}{x + 7} = \dfrac{3}{1}$

$\Rightarrow 5x + 7 = 3x + 21$

$\Rightarrow 2x = 14$

$\Rightarrow x = \dfrac{14}{2} = 7$

$\therefore$ Son's present age = 7 years

89.(5) $\dfrac{49}{?} = \dfrac{?}{25}$

$\Rightarrow (?)^2 = 49 \times 25$

$\Rightarrow ? = \sqrt{49 \times 25} = 7 \times 5 = 35$

90.(2) Let the production of wheat from three sates X, Y and Z be $5x$, $8x$ and $7x$ tons respectively.

Now, $8x - 5x = 1350$

$\Rightarrow 3x = 1350$

$\Rightarrow x = \dfrac{1350}{3} = 450$

$\therefore$ Total production

$= 5x + 8x + 7x$

$= 20x$

$= 20 \times 450 = 9000$ tons.

91.(4) Let the original fraction be $\dfrac{x}{y}$.

Now, $\dfrac{\frac{120x}{100}}{y} = \dfrac{2}{3}$

$\Rightarrow \dfrac{6x}{5y} = \dfrac{2}{3}$

$\Rightarrow \dfrac{x}{y} = \dfrac{2}{3} \times \dfrac{5}{6} = \dfrac{5}{9}$

92.(1) 5 students can be seated on 5 seats in 5! ways

$= 5 \times 4 \times 3 \times 2 \times 1 = 120$

93.(2) $2x - 3y = 1$ ... (*i*)

$3x + y = 18$ ... (*ii*)

Multiplying equation (*i*) by 3 and (*ii*) by 2 and subtracting (*ii*) from (*i*),

$\begin{array}{r} 6x - 9y = 3 \\ 6x + 2y = 36 \\ \hline -11y = -33 \end{array}$

$\Rightarrow y = 3$

From equation (i),

$2x - 3 \times 3 = 1$

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

$\Rightarrow x - y = 5 - 3 = 2$

94.(3) Net effect on area

$= \left(x + y + \dfrac{xy}{100}\right)\%$

Here $x = 40$, $y = -20$ (decrease)

$\therefore$ Net effect =

$\left(40 - 20 - \dfrac{40 \times 20}{100}\right)\%$

= 12% increase

95.(5) Let the number be x.

$\therefore \dfrac{40}{100} \times \dfrac{70}{100} \times x = 336$

$\therefore x = \dfrac{336 \times 100}{4 \times 7} = 1200$

$\therefore \dfrac{1}{3}$ of $x = \dfrac{1}{3} \times 1200 = 400$

96.(4) Let the cost of a wrist watch be Rs. x and that of a calculator be Rs. y.

According to the question,

$7x + 5y = 3650$ ... (*i*)

and, $x - y = 110$

$\Rightarrow x = 110 + y$ ... (*ii*)

Putting the value of x is equation (*i*),

$7(110 + y) + 5y = 3650$

$\Rightarrow 770 + 7y + 5y = 3650$

$\Rightarrow 12y = 3650 - 770$

$\Rightarrow 12y = 2880$

$\Rightarrow y = \dfrac{2880}{12} = 240$
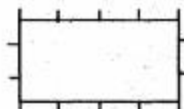
$\therefore$ Cost of a calculator = Rs. 240

97.(1) Let the length and breadth be $4x$ and $3x$ metres respectively.

$\therefore 2(4x + 3x) = 21$

$\Rightarrow 14x = 21 \Rightarrow x = \dfrac{21}{14} = 1.5$

$\Rightarrow$ Length = 6m and breadth = 4.5

Clearly, number of poles = 14

98.(2) Let the radius of circle be r cms.

$\therefore 2\pi r = 88$

$\Rightarrow r = \dfrac{88 \times 7}{2 \times 22} = 14$ cms.

$\therefore$ Area $= \pi r^2 = \dfrac{22}{7} \times 14 \times 14$

$= 616$ cm^2

99.(5) $2x + 3y + z = 25$ ... (*i*)

$x + y + z = 14$ ... (*ii*)

$x + y = z$ ... (*iii*)

From equations (*ii*) and (*iii*),

$z + z = 14 \Rightarrow z = 7$

$\therefore$ From equation (*iii*), $y = 7 - x$

From equation (*i*),

$2x + 3(7 - x) + 7 = 25$

$\Rightarrow 2x + 21 - 3x + 7 = 25$

$\Rightarrow 28 - x = 25$

$\Rightarrow x = 3$

100.(3) Number of students who can speak :

Only English $\rightarrow \dfrac{40 \times 60}{100} = 24$

Only Hindi $\rightarrow \dfrac{25 \times 60}{100} = 15$

Both languages
$= 60 - 24 - 15 = 21$

∴ Number of students who can speak English $= 15 + 21 = 36$

136.(3) Alphabetical order of words :

(2) Miniature
↓
(4) Minimalist
↓
(5) Miniscule
↓
(3) Ministerial
↓
(1) Minority

137.(2) Alphabetical order of words :

(3) Carbohydrate
↓
(1) Carbolic
↓
(5) Carbonate
↓
(2) Carbonise
↓
(4) Carburation

138.(5) Alphabetical order of words :

(2) Franchise
↓
(3) Frantic
↓
(1) Fraternity
↓
(5) Fraudulent
↓
(4) Fraught

139.(1) Alphabetical order of words :

(3) Predictor
↓
(4) Predispose
↓
(2) Prefabricate
↓
(1) Preferential
↓
(5) Preformative

140.(4) Alphabetical order of words :

(3) Transition
↓

(2) Translate
↓
(5) Transmit
↓
(4) Transplant
↓
(1) Transport

141.(3)
D	H	F	M	T	R	V
↓	↓	↓	↓	↓	↓	↓
1	5	7	9	0	2	8

142.(2)
P	R	F	L	K	H	V
↓	↓	↓	↓	↓	↓	↓
4	2	7	3	6	5	8

143.(5)
M	D	F	H	L	T	R
↓	↓	↓	↓	↓	↓	↓
9	1	7	5	3	0	2

144.(1)
R	P	F	L	V	T	D
↓	↓	↓	↓	↓	↓	↓
2	4	7	3	8	0	1

145.(4)
K	H	V	L	R	D	P
↓	↓	↓	↓	↓	↓	↓
6	5	8	3	2	1	4

156.(3) The word 'intense' means very strong. Out of the given answer choices the word 'feeble' means weak, faint. Hence, the words **intense** and **feeble** are antonymous.

157.(4) The words success and failure are antonymous.

158.(1) In the passage, the word 'conflict' means a serious disagreement. Out of the given answer choices, the word 'conformity' means behaviour etc. that conforms to established rules, customs etc. Hence, the words **conflict** and **conformity** are antonymous.

159.(3) In the passage the word support (Verb) means to help somebody/something by one's approval. Out of the answer choices, the word oppose (Verb) means to express strong disapproval of or disagreement with something/somebody with the aim of preventing or changing a course of action. Hence, the words **supported** and **opposed** are antonymous.

160.(3) The words **promotion** and **demotion** are antonymous.

161.(3) In the passage, the word precarious (Adjective) means not safe, uncertain. Out of the answer choices, the word 'secured' means protected, safe. Hence, the words **precarious** and **secured** are antonymous.

163.(3) The word devastating (Adjective) means causing great destruction. Its antonym will be **refreshing**.

164.(5) In the passage the word 'trivial' means of little importance, concerned with unimportant things. Out of the given answer choices the word momentous (Adjective) means very important serious. Hence, the words **trivial** and **momentous** are antonymous.

165.(3) The word 'harsh' (Adjective) means sevre. The word 'mild' means not severe. Hence, the words **harsh** and **mild** are antonymous.

176.(1) The correct spelling is profession.

178.(1) The correct spelling is matchstick.

179. (4) The correct spelling is explode.

180.(2) The correct spelling is stretch.

181.(2) The correct spelling is patrol.

183.(3) The correct spelling is commissioner.

184.(1) The correct spelling is welcome.

185.(3) The correct spelling is administration.

191.(1) The error lies in part (1) of the sentence. 'I have criticize' should be replaced with 'I did not criticize'. It will make the sentence meaningful.

192.(2) The word 'write' is in Present Indefinite tense. It should be replaced with 'has written' as Present Perfect is used to express post action whose time is not given and not definite.

194.(1) The word responsibilities is a plural subject. It will take plural verb.

197.(2) The word care is singular and it will take singular verb. Hence, 'care have been taken' should be replaced with 'care has been taken'.

200.(3) The phrase 'borne out of,' should be replaced with 'born of' which means coming from the specified type of parents, background, origin etc. For example,

Her socialist beliefs were born of a hatred of injustice.

TEST-I : REASONING

1. In a certain code, 'ROAMING' is written as 'APRNGOI'. How would 'PLATEAU' be written in the same code ?
(1) AMPTUBE   (2) PMAUEBU
(3) ALPUUAE   (4) AMPUUBE
(5) None of these

2. Four of the following five are alike in a certain way and so form a group. Which is the one that **does not** belong to that group ?
(1) Horse   (2) Donkey
(3) Cow   (4) Goat
(5) Dog

3. How many meaningful English words can be formed with the letters of the word 'STOP' each using only once in a word but in different sequence, starting with the letter P ?
(1) None   (2) Two
(3) One   (4) Three
(5) More than three

4. 'Mother' is related to 'Offspring' in the same way as 'Tree' is related to —
(1) Sapling   (2) Fruit
(3) Root   (4) Stem
(5) None of these

5. In a certain code, 'SPRING' is written as '#2%@4=' and 'GONE' is written as '=74©'. How would SIGN be written in the same code ?
(1) #@4=   (2) 2@=4
(3) #@=4   (4) #%=4
(5) None of these

6. Four of the following five are alike in a certain way and so form a group. Which is the one that **does not** belong to that group ?
(1) June   (2) Year
(3) Week   (4) Month
(5) Day

7. 'Date' is related to 'Calendar' in the same way as 'Time' is related to —
(1) Day   (2) Hour
(3) Sun   (4) Clock
(5) None of these

8. Pointing to Raju, Ayesha says "He is the son of my mother's brother's wife". How is Ayesha related to Raju ?
(1) Sister   (2) Niece
(3) Cousin Sister
(4) Data inadequate
(5) None of these

9. Tom walked 10 miles from Point P towards the East. He then took right turn and walked 5 miles and taking another right turn walked again for another 5 miles. In which direction is Point P from where Tom is standing now ?
(1) West   (2) North-West
(3) North-East
(4) Cannot be determined
(5) None of these

10. Four of the following five are alike in a certain way and so form a group. Which is the one that **does not** belong to that group ?
(1) 21   (2) 51
(3) 63   (4) 15
(5) 23

11. If 'green' is called 'white', 'white' is called 'yellow', 'yellow' is called 'blue', 'blue' is called 'pink' and 'pink' is called 'black', then what is the colour of milk?
(1) green   (2) blue
(3) pink   (4) yellow
(5) None of these

12. How many such pairs of letters are there in the word CONTROL each of which has as many letters between them in the word as in the English alphabet ?
(1) None   (2) One
(3) Two   (4) Three
(5) More than three

13. In a group of six children T, K, V, O, M and W, T is fatter than M but not as fat as W. K is not the fattest nor is W whereas V is the thinnest. Who is the fattest among them all ?
(1) O   (2) T
(3) M
(4) Data inadequate
(5) None of these

14. In a certain code language, 'TEMPORARY' is written as 'SFLQOQBOZ'. How would 'WONDERFUL' be written in the same code ?
(1) VPMEFQGTM
(2) VPMEESGTM
(3) XPMEEQGTM
(4) VPMEESEVK
(5) None of these

15. 'Teacher' is related to 'students' in the same way as 'Coach' is related to _____
(1) Team   (2) Player
(3) Sports   (4) Play
(5) None of these

Directions (16-20) : Study the following arrangement of letter–number–symbol and answer the questions given below :

K3A∆VTR = 7BME4WS @JN9 PUCβ Z5ODIQG●LY

16. How many such numbers are there in the above arrangement each of which is preceded by symbol and immediately followed by a Vowel ?
(1) None   (2) One
(3) Two   (4) Three
(5) More than five

17. In the above arrangement what should come in the place of the question-mark (?) in the following series ?
AKV T∆= TRM EBW ?
(1) SW@   (2) S4J
(3) S4@   (4) @WH
(5) None of these

18. How many such Consonants are there in the above arrangement, each of which is preceded by symbol and immediately followed by a number ?
(1) One   (2) Two
(3) Three   (4) None
(5) None of these

19. In the above arrangement if the first twenty elements are written in the reverse order then what is the Sixth element to the left of eighteenth element from the left ?

(1) B   (2) =
(3) 7   (4) E
(5) None of these

20. Four of the following five are alike in a certain way based on their positions in the above arrangement and form a group. Which is the one that does not belong to that group ?

(1) CPβ   (2) @WJ
(3) 7RB   (4) IOQ
(5) A3V

Directions (21-25) : In each of the questions below are given three statements followed by two Conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the Conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Give answer (1) if only Conclusion I follows

Give answer (2) if only Conclusion II follows

Give answer (3) if either Conclusion I or II follows

Give answer (4) if neither Conclusion I nor II follows

Give answer (5) if both Conclusions I and II follow

21. Statements
Some buses are bells.
Some bells are horses.
All trains are horses.
Conclusions
I. Some buses are horses.
II. Some trains are bells.

22. Statements
All goats are kites.
All roses are goats.
Some kites are bees.
Conclusions
I. Some kites are roses.
II. Some goats are bees.

23. Statements
All classes are lions.
Some birds are classes.
All pens are lions.
Conclusions
I. No pen is bird.
II. Some birds are pens.

24. Statements
Some candles are papers.
All papers are trees.
Some books are papers.

Conclusions
I. Some books are candles.
II. Some trees are books.

25. Statements
All bats are elephants.
Some baloons are crows.
All crows are bats.
Conclusions
I. Some baloons are elephants.
II. Some elephants are crows.

Directions (26-30) : Study the following information carefully and answer the questions given below :

The digits from 0 to 9 are coded as shown below with the exceptions that follow :

Digit	0	7	3	1	4	6	8	5	9	2
Code	R	I	M	P	B	D	H	A	T	N

Exceptions 1 : If number begins and ends with an odd digit (non-zero), then both the first and last digits are to be coded as $.

2. If a number begins and ends with an even digit (including zero), then both the first and last digits are to be coded as #.

26. What will be the code for 314925 ?
(1) MPBDHA   (2) MPBTND
(3) MPBTNA   (4) $PBTN$
(5) None of these

27. 'RATHIM' represents which of the following numbers ?
(1) 095873   (2) 059673
(3) 059871   (4) 059873
(5) None of these

28. What will be the code for 4521736 ?
(1) BANPIMD   (2) BANPIRD
(3) #ANPIM#   (4) #BAMPI#
(5) None of these

29. What will be the code for 348057 ?
(1) $BHRIA   (2) MBHARI
(3) $MBHR$ (4) $BHRAI$
(5) None of these

30. Which of the following numbers can represent '#AMPT#' ?
(i) 453198   (ii) 753198
(ii) 653192
(1) Only (i) or (iii)
(2) Only (iii)
(3) Only (ii) or (iii)
(4) Only (i) or (ii)
(5) None of these

Directions (31-35) : Study the following information carefully and answer the questions given below :

Seven friends R, M, K, P, L, W and B live in three different buildings, i.e., X, Y and Z. Not less than two or more than three live in any of the buildings. Each of them has a liking for different fruits among apple, jackfruit, watermelon, orange, grapes, pineapple and mango, not necessarily in that order. Three among them are girls, one each every building. W likes orange and stays in building Y alongwith only P. M lives in building Z and likes jackfruit. None in building X likes apple or grapes. R and L don't stay in X building. K in R's close friend and she does not like watermelon. L likes pineapple. None of the girls likes orange and one of them likes apple. R does not like grapes.

31. Who likes mango ?
(1) B   (2) P
(3) K
(4) Data inadequate
(5) None of these

32. Who stay in building Z ?
(1) M, R   (2) K, B, M
(3) M, R, B   (4) M, K, R
(5) None of these

33. Which fruit does R like ?
(1) Apple   (2) Watermelon
(3) Mango
(4) Pineapple
(5) None of these

34. Who are the three girls among the friends ?
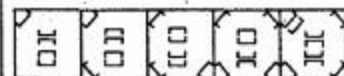(1) K, R, W   (2) R, K, P
(3) K, M, P
(4) Data inadequate
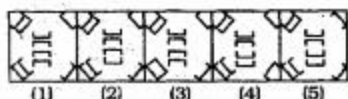(5) None of these

35. Which fruit does B like ?
(1) Mango   (2) Grapes
(3) Apple   (4) Watermelon
(5) None of these

Directions (36 – 50) : In each of the questions given below which one of the five answer figures on the right should come after the problem figures on the left, if the sequence were continued ?
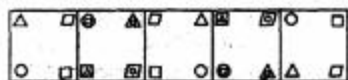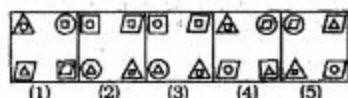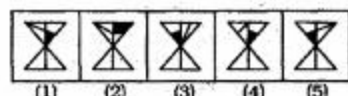
36. Problem Figures

3

Answer Figures

(1) (2) (3) (4) (5)

37. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)

38. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)

39. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
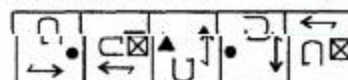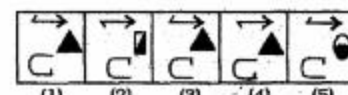
40. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
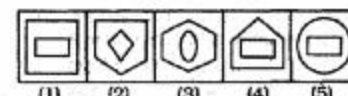
41. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)

42. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
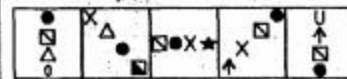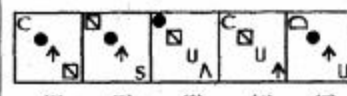
43. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
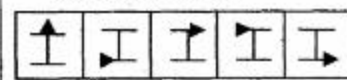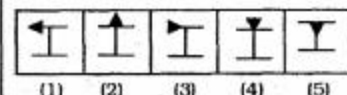
44. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
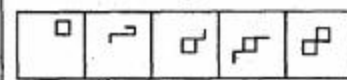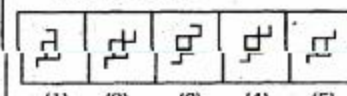
45. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
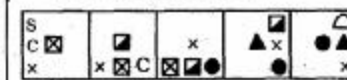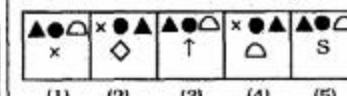
46. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
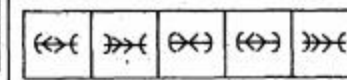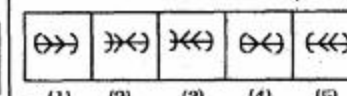
47. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
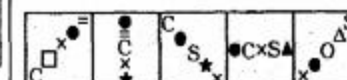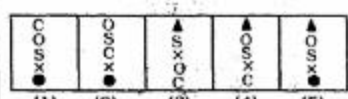
48. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
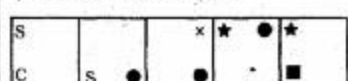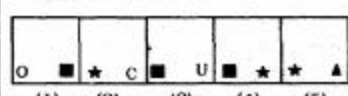
49. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
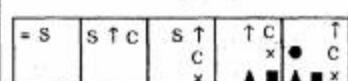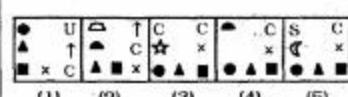
50. Problem Figures

Answer Figures

(1) (2) (3) (4) (5)
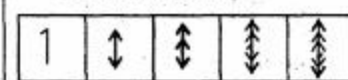
TEST-II : NUMERICAL ABILITY

Directions (51-70) : What will come in place of the question mark (?) in the following equations ?

51. $3785 + ? - 4297 = 5523$

(1) 6125   (2) 6035

(3) 6025   (4) 6135

(5) None of these

52. $11.02 \times 8 + 1.5 \times 0.6 = ?$

(1) 89.06   (2) 89.60

(3) 89.96   (4) 89.26

(5) None of these

53. $\dfrac{3}{5}$ of $\dfrac{4}{7}$ of $\dfrac{7}{9}$ of 1380 = ?

(1) 378   (2) 376
(3) 368   (4) 386
(5) None of these

54. 75% of 580 + 58% of 750 = ?

(1) 840   (2) 860
(3) 680   (4) 780
(5) None of these

55. $36 \times 45 + \sqrt{?} = 1700$

(1) 640   (2) 360
(3) 80   (4) 6400
(5) None of these

56. $12^2 + 16 = ?$

(1) 180   (2) 160
(3) 240   (4) 156
(5) None of these

57. $2\dfrac{3}{5} + 4\dfrac{1}{5} - 3\dfrac{2}{5} = ?$

(1) $3\dfrac{1}{5}$ (2) $3\dfrac{4}{5}$
(3) $4\dfrac{2}{5}$ (4) $4\dfrac{3}{5}$
(5) None of these

58. $10^{7.5} \times 10^{4.5} \div 10^2 = 10^?$

(1) 10   (2) 6
(3) 8.5   (4) 9.5
(5) None of these

59. $36^2 - 24^2 = ?$

(1) 840   (2) 640
(3) 720   (4) 960
(5) None of these

60. $32 \times 15 - 1850 \div 37 = ?$

(1) 295   (2) 326
(3) 410   (4) 430
(5) None of these

61. $11\dfrac{2}{9} \times \dfrac{36}{101} = ?$

(1) 16   (2) 18
(3) 4   (4) 7
(5) None of these

62. 1087.05 + 187.005 + 87.005 = ?

(1) 1361.066
(2) 1361.556
(3) 1361.055
(4) 1361.06
(5) None of these

63. $\sqrt{?} + 187 = 220$

(1) 1089   (2) 529
(3) 23   (4) 33
(5) None of these

64. $\dfrac{27 \times 2^3 + 18}{6} = ?$

(1) 3   (2) 2
(3) $\dfrac{9}{2}$ (4) 3
(5) None of these

65. 80% of 135 + ?% of 750 = 228

(1) 25   (2) 20
(3) 16   (4) 24
(5) None of these

66. $632 \div 8 + 11^2 = ?$

(1) 180   (2) 185
(3) 191   (4) 199
(5) None of these

67. ? of $\dfrac{7}{8}$ of $\dfrac{1}{3}$ of $\dfrac{2}{7} = 12$

(1) 108   (2) 144
(3) 132   (4) 136
(5) None of these

68. 10101.001 + 1001.01 + 101.1 = ?

(1) 12121.011   (2) 11111.111
(3) 12203.101   (4) 11203.111
(5) None of these

69. $2310 \div 14 \div 5 = ?$

(1) 33   (2) 825
(3) 35   (4) 233
(5) None of these

70. $198 \times 15 \div 30 = ?$

(1) 98   (2) 19
(3) 96   (4) 93
(5) None of these

Directions (71-75) : What should come in place of the question mark (?) in the following number series ?

71. 2 5 11 23 47 ?

(1) 95   (2) 93
(3) 98   (4) 94
(5) None of these

72. 7 8 12 21 37 ?

(1) 64   (2) 63
(3) 62   (4) 61
(5) None of these

73. 16 8 12 30 105 ?

(1) 387.5   (2) 470.5
(3) 367.5   (4) 472.5
(5) None of these

74. 3 7 19 55 163 ?

(1) 467   (2) 487
(3) 475   (4) 485
(5) None of these

75. 11 16 23 32 43 ?

(1) 55   (2) 57
(3) 58   (4) 59
(5) None of these

76. 40% of the number is equal to three-fourth of the another number. What is the ratio between first number and second number ?

(1) 15 : 16   (2) 15 : 8
(3) 9 : 15   (4) 8 : 17
(5) None of these

77. A 360 metre long train crosses a signal post in 18 seconds. What is the speed of the train in km per hour ?

(1) 76   (2) 60
(3) 64   (4) 72
(5) None of these

78. A and B together can do a piece of work in 4 days. If A alone can do in 6 days. In how many days B can alone complete the same piece of work ?

(1) 12   (2) 8
(3) 9   (4) 16
(5) None of these

79. What is the compound interest accrued by Ravindra on an amount of Rs. 18000 at the rate of 10 p.c.p.a. at the end of three years ?

(1) Rs. 23498
(2) Rs. 23400
(3) Rs. 23958
(4) Rs. 23900
(5) None of these

80. A shopkeeper sells a T.V. set on discount of 8% of print price and gains 25%. If print price was Rs. 20000 then, what was the cost price ?

(1) Rs. 13800   (2) 14720
(3) Rs. 14800   (4) 13720
(5) None of these

81. The ratio of number of students taking admission in organisation X and Y was 5 : 8. If 20% of students exceed in organisation X and 10% of students exceed in organisation Y, then new ratio of students is

(1) 15 : 22   (2) 15 : 16
(3) 5 : 4   (4) 5 : 7
(5) None of these

82. The number obtained by interchanging the digits of a two digit number is less than the original number by 18. If sum of the digits is 6, what was the original two digit number?

(1) 51   (2) 24
(3) 42   (4) 15
(5) None of these

83. Samar spends 52% of his monthly salary on household expenditure and 23% on miscellaneous expenditure. If he is left with Rs. 4500, what is his monthly salary ?

(1) Rs. 16000
(2) Rs. 17500
(3) Rs. 17000
(4) Rs. 18500
(5) None of these

84. Number of girls in a class is 44 which is 55% of the total number of students. How many boys are there in the class ?

(1) 75   (2) 76
(3) 84   (4) 82
(5) None of these

85. Average marks obtained in History by 45 students in 'A' division are 75 and the average marks obtained by 40 students in 'B' division are 78. What are the overall average marks obtained in History by the students in both the divisions (rounded off to two digits after decimal) ?

(1) 76.81   (2) 77.11
(3) 77.41   (4) 76.41
(5) None of these

86. A shopkeeper purchased 245 pieces of an article at Rs. 30 per piece. He spent Rs. 980 on transport and Rs. 1470 on packing the articles. He sold the articles at the rate of Rs. 50% per piece. What is the per cent profit earned?

(1) 25   (2) 20
(3) 28   (4) 22.5
(5) None of these

87. Difference between the compound interest and simple interest accrued in two years at 8 p.c.p.a. is Rs. 128. What is the principal amount?

(1) Rs. 18000
(2) Rs. 16000
(3) Rs. 20000
(4) Cannot be determined
(5) None of these

88. Present ages of father and the son are in the ratio of 5 : 1 respectively. Seven years hence this ratio becomes 3 : 1. What is son's present age in years?

(1) 8   (2) 5
(3) 6   (4) 7
(5) None of these

89. What will come in place of both the question marks (?) in the following equation ?

$$\frac{49}{?} = \frac{?}{25}$$

(1) 45   (2) 42
(3) 32   (4) 37
(5) None of these

90. Production of wheat in 2004 from three states X, Y and Z was in the ratio of 5 : 8 : 7 respectively. If production of state 'Y' is more than that of state 'X' by 1350 tons, what was the total production of the three states in tons ?

(1) 8500   (2) 9000
(3) 9200
(4) Cannot be determined
(5) None of these

91. If the numerator of a fraction is increased by 20% and the denominator is not changed, the resultant fraction thus obtained is $\frac{2}{3}$. What was the original fraction ?

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

(3) $\frac{4}{9}$ (4) $\frac{5}{9}$

(5) None of these

92. 5 students are to be seated on 5 seats. In how many different ways can they be seated ?

(1) 120   (2) 20
(3) 60   (4) 72
(5) None of these

93. If $2x - 3y = 1$ and $3x + y = 18$ then what is the value of $x - y$?

(1) −2   (2) 2
(3) −3   (4) 3
(5) None of these

94. If the length of a rectangle is increased by 40% and the breadth is reduced by 20%, what will be the effect on its area ?

(1) Increase by 8%
(2) Increase by 20%
(3) Increase by 12%
(4) Increase by 16%
(5) None of these

95. 40% of 70% of a number is 336. What is one-third of that number ?

(1) 475   (2) 480
(3) 420   (4) 450
(5) None of these

96. Cost of 5 calculators and 7 wrist watches is Rs. 3650. If the cost of a wrist watch is more than the cost of a calculator by Rs. 110, what is the cost of a calculator ?

(1) Rs. 320
(2) Rs. 250
(3) Rs. 350
(4) Rs. 240
(5) None of these

97. Poles are to be created along the boundary of a rectangular field in such a way that distance between any two adjacent poles is 1.5 metres. The perimeter of the field is 21 metres and length and the breadth are in the ratio of 4 : 3 respectively. How many poles will be required ?

(1) 14   (2) 16
(3) 15   (4) 20
(5) None of these

98. What will be the area of a circle whose perimeter is 88 cms ?

(1) 576 cm²
(2) 616 cm²
(3) 636 cm²
(4) Cannot be determined
(5) None of these

99. If $2x + 3y + z = 25$, $x + y + z = 14$ and $x + y = z$. then what is the value of x ?

(1) 7   (2) 4
(3) 6   (4) 5
(5) None of these

100. In a class of 60 students 40% can speak only Hindi, 25% can speak only English and rest of the students can speak both the languages. Total how many students can speak English ?

(1) 32   (2) 28
(3) 36   (4) 15
(5) None of these

TEST-III - COMPUTER AWARENESS

101. One advantage of dial-up Internet access is —
(1) it utilizes broadband technology
(2) it utilizes existing telephone security
(3) it uses a router for security
(4) modem speeds are very fast
(5) None of these

102. What is backup?
(1) Adding more components to your network
(2) Protecting data by copying it from the original source to a different destination
(3) Filtering old data from the new data
(4) Accessing data on tape
(5) None of these

103. Network components are connected to the same cable in the _____ topology.
(1) Star (2) ring (3) bus
(4) mesh (5) mixed

104. Two or more computers connected to each other for sharing information form a
(1) network (2) router (3) server
(4) tunnel (5)pipeline

105. A computer checks the _____ of user names and passwords for a match before granting access.
(1) website (2) network (3) backup file (4) database (5) None of these

106. Computers that are portable and convenient for users who travel are known as —
(1) supercomputers (2) Laptops
(3) minicomputers (4) file servers
(5) None of these

107. What is the term for unsolicited e-mail?
(1) newsgroup (2) usenet
(3) backbone (4) flaming (5) spam

108. What type of program controls the various computer parts and allows the user to interact with the computer?
(1) Utility software (2)Operating system (3) World processing software (4) Database program
(5) None of these

109. Each cell in a Microsoft Office Excel document is referred to by its cell address, which is the
(1) cell's column label
(2) cell's column label and worksheet tab name
(3) cell's row label
(4) cell's row and column labels
(5) None of these

110. Which of the following is true?
(1) byte is a single digit in a binary number
(2) bit represents a grouping of digital numbers
(3) eight-digit binary number is called a byte
(4) eight-digit binary number is called a bit
(5) None of these

111. Office LANs that are spread geographically apart on a large scale can be connected using a corporate —
(1)CAN (2)LAN (3) DAN
(4)WAN (5)TAN

112. What is the process of copying software programs from secondary storage media to the hard disk
(1) configuration (2) download
(3) storage (4) upload (5) installation

113. The code for a Web page is written using —
(1) a fifth generation language
(2) WinZip
(3) Pen
(4) Hypertext Markup Language
(5)URL

114. Small application programs that run on a Web page and may ensure a form is completed properly or provide animation are known as —
(1) flash (2) spiders (3) cookies
(4) applets (5) sparks

115. In a relational database, this is a data structure that organizes the information about a single topic into rows and columns.
(1)block (2) record (3)tuple (4) table
(5) command line interface

116. The first computers were programmed using —
(1) assembly language
(2) machine language
(3) source code
(4) object code
(5) spaghetti code

117. When the pointer, is positioned on a _____, it is shaped like a hand.
(1) grammar error (2) hyperlink (3) screen tip (4) spelling error
(5) formatting error

118. Which process checks to ensure the components of the computer are operating and connected properly?
(1) Booting (2) Processing (3) Saving
(4) Editing (5) None of these

119. How can the user determine what programs are available on a computer?
(1) Checking the hard disk properties
(2) Viewing the installed programs during the booting process
(3) Checking the operating system for a list of installed pro-
(4) Checking the existing files saved on the disk
(5) None of these