PART-A

GENERAL INTELLIGENCE

Directions (1-10): In questions no. 1 to 10, select the related letters/word/number/figure from the given alternatives.

1. Question Figures

Answer Figures

2. Question Figures

Answer Figures

3. Hunger : Food : : Disease : ?
   (a) Weakness  (b) Medicine
   (c) Sickness  (d) Water

4. Thin : Thick : : Draft : ?
   (a) Short      (b) Tall
   (c) Broad      (d) Long

5. AN : BO : : LY : ?
   (a) KN        (b) JW
   (c) MZ        (d) IV

6. ACE : HIL : : MOQ : ?
   (a) TVX       (b) TUX
   (c) XVT       (d) SUW

7. BDFH : JLNP : : RTVX : ?
   (a) BDFH      (b) BDFZ
   (c) ZBDF      (d) YZAB

8. 400 : 20 : : 484 : ?
   (a) 20        (b) 21
   (c) 22        (d) 23
9. $4 : 32 :: 7 : ?$
   (a) 98  (b) 343  
   (c) 88  (d) 49

10. $624 : 426 :: 745 : ?$
    (a) 475  (b) 726  
    (c) 547  (d) 645

**Directions (11-18):** Find the odd number/letters/figure/number pair from the given alternatives.

11. (a) 2  (b) 9  
    (c) 63  (d) 28

12. (a) $9.09$  (b) $\frac{909}{100}$  
    (c) $\frac{9}{100}$  (d) $\frac{909}{1000}$

13. (a)   (b)   (c)   (d)

14. (a)   (b)   (c)   (d)

15. (a) 16-25  (b) 64-81  
    (c) 36-49  (d) 100-110

16. (a) XV  (b) ZW  
    (c) YV  (d) WT

17. (a) ADF  (b) BEG  
    (c) LOQ  (d) SUW

18. (a) HIXW  (b) BAQP  
    (c) SRVU  (d) UTYX

**Directions (19):** Which one set of letters when sequentially placed at the gaps in the given letters series shall complete it?

19. $\text{w}_\_\text{xw}_\_\_\_\text{ax}_\_\_\_\_\text{wa}_\_\_\_$
    (a) axawxa  (b) aawaxx  
    (c) aawxx  (d) waawxx

**Directions (20-24):** A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

20. Question Figures

21. AE, FJ, ?, PT
    (a) MN  (b) UV  
    (c) KO  (d) YZ

22. BDF, HJL, NPR, ?
    (a) TRP  (b) TVY  
    (c) TVX  (d) UWX

23. 9, 17, 31, 57, ?, 205
    (a) 102  (b) 104  
    (c) 107  (d) 109

24. Question Figures
25. The average age of three friends A, B, C is 20 years. The average age of A and B is 19 years. What is the age of C?
   (a) 20 years  (b) 21 years  (c) 22 years  (d) 24 years
26. Arun runs faster than Elias, but not as fast as Dinesh. Dinesh runs faster than Chander, but not s fast as Bikram. Who runs fastest?
   (a) Arun  (b) Bikram  (c) Chander  (d) Dinesh
27. Question Figures:
   Answer Figures:
28. Ramu’s mother said to Ramu. “My mother has a son whose son is Achyut”. How is Achyut related to Ramu?
   (a) Uncle  (b) Cousin  (c) Brother  (d) Nephew
   Directions (29-30): From the given alternatives select the word which can be formed using the letters given in the word.
   29. GLAZE
       (a) GLAD  (b) LAZY  (c) LEASE  (d) ZEAL
   30. CIRCUMSCRIBE
       (a) TRIBES  (b) BARBER  (c) SCARE  (d) CRUMBS
   Directions (31-32): From the given alternatives select the word which cannot be formed using the letters to the given word.
   31. SIGNIFICANT
       (a) SCANT  (b) FIASCO  (c) GIANT  (d) FACT
   32. COMMISSIONER
       (a) MISSION  (b) COMMON  (c) MISSILE  (d) SIREN
   33. If A is coded as 2, B as 3 and so on, what is the code for FACE?
       (a) 7246  (b) 6245  (c) 6357  (d) 7345
   34. In the code TIGER is written as SHFDQ, how shall HORSE be written in the code?
       (a) GNRQD  (b) GNQRD  (c) GRNQD  (d) GMQRD
   Directions (35): Which answer figure will complete the pattern in the question figure?
   35. Question Figure
       Answer Figures
Directions (36): From the given answer figures, select the one in which the question figure is hidden/ embedded.

36. Question Figures

Answer Figures

37. Among the four answer figures, which one can be formed from the cut out pieces given below in the question figure?

Question Figures

Answer Figures

38. Some equations are solved on the basis of some system. Using the same, solve the unsolved equation.

\[ 4 \times 5 \times 6 = 645 \]
\[ 5 \times 6 \times 7 = 756 \]
\[ 6 \times 7 \times 9 = ? \]
\[ 8 \times 7 \times 8 = 987 \]

(a) 768    (b) 867
(c) 876    (d) 678

39. Question Figure:

Answer Figures:

Directions (40-41): Select the missing number from the given alternatives.

40.

\[ \begin{array}{c|c|c|c|c}
46 & 22 & 69 & 42 & 79 & 38 \\
24 & 27 & \_ & \_ & \_ & \_ \\
\end{array} \]

(a) 40    (b) 41
(c) 31    (d) 51

41.

\[ \begin{array}{c|c}
6 & 12 \\
12 & 9 & 5 \\
10 & 5 & \_ \\
720 & 360 & 336 \\
\end{array} \]

(a) 9    (b) 12
(c) 7    (d) 14

42. Mrs. Kiran starts from Gandhi Square, Kolkata, drives her car towards west 6 kms and turning to her right she drives 4 kms, then again turns the car to her right and moves 6 kms. How far is she from the starting point?

(a) 6 kms    (b) 16 kms
(c) 4 kms    (d) 8 kms
Directions (43-44): A, B, C, D and E are five boys sitting in a circle. C is sitting immediately to the left of E. A is sitting between D and E.

43. Who is sitting to the immediate left hand side of C?
   (a) E (b) A (c) B (d) D

44. Who is sitting between B and A?
   (a) C (b) E (c) D (d) None

45. Which number is common to all the three geometrical figures?
   ![Figure 43-44](a) 1 (b) 2 (c) 3 (d) 4

46. Which one of the following figures represents the relationship among Tables, Chairs, Furniture?
   ![Figure 46](a) ![Diagram](b) ![Diagram](c) ![Diagram](d)

47. Which one of the following figures represents the relationship among Brinjal, Meat, Vegetables?
   ![Figure 47](a) ![Diagram](b) ![Diagram](c) ![Diagram](d)

Directions (48-50): In the following question one/two statements are given followed by two conclusions I and II. You have to consider the two statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow from the given statements.

48. Statements: Some phones are watches. All watches are guns.

   Conclusions:
   I. All guns guns are watches.
   II. Some guns are Phones.
   (a) Only I follows
   (b) Only II follows
   (c) Either I or II follows
   (d) Neither I nor II follows

49. Statements: In schools, students learn as they are able to understand what is taught to them.

   Conclusions:
   I. Student’s learning in schools, depends upon their ability to learn.
   II. Student’s learning in schools depends upon how they are taught.
   (a) Only I follows
   (b) Only II follows
   (c) Both I and II follows
   (d) Neither I nor II follows

50. Statements: Private firm workers are hard-working.

   Conclusions:
   I. Some hard-working persons are private firm workers.
II. Government employees are not hard-working
(a) Only I follows
(b) Only II follows
(c) Neither I nor II follows
(d) Both I and II follow

ANSWER SHEET

1. (d)  2. (c)  3. (b)  4. (b)  5. (c)  6. (b)  7. (c)  8. (c)  9. (a)  10. (c)
11. (b)  12. (d)  13. (a)  14. (c)  15. (d)  16. (a)  17. (d)  18. (a)  19. (c)  20. (c)
21. (c)  22. (c)  23. (c)  24. (c)  25. (c)  26. (b)  27. (c)  28. (b)  29. (d)  30. (d)
31. (b)  32. (c)  33. (a)  34. (b)  35. (a)  36. (c)  37. (b)  38. (b)  39. (d)  40. (b)
41. (c)  42. (c)  43. (c)  44. (c)  45. (d)  46. (d)  47. (c)  48. (b)  49. (c)  50. (a)
PART-II

GENERAL AWARENESS

51. Gandhiji’s movement of boycotting foreign goods aimed at
(a) full independence
(b) creating anti-British sentiment
(c) promotion of welfare state
(d) promotion of cottage industries

52. What is the maximum age limit prescribed for the post of the President of India?
(a) 58 years (b) 60 years
(c) 62 years (d) There is no maximum age limit

53. The implementation of Jawahar Rojgar Yojana rests with
(a) Gram Panchayats
(b) District Collectors
(c) State Governments
(d) Union Government

54. What is quorum required for convening the Lok Sabha?
(a) $\frac{1}{6}$ (b) $\frac{1}{8}$
(c) $\frac{1}{10}$ (d) $\frac{1}{5}$

55. In the Parliamentary form of Government, “He is the first among equal”. Who is he?
(a) President (b) Prime Minister (c) Leader of Opposition (d) Speaker of lower house

56. Silicon Valley of India is located in
(a) Dehradun (b) Bangalore
(c) Hyderabad (d) Srinagar

57. The author of the book “India Wins Freedom” is
(a) Kuldeep Nayyar (b) Maulana Abul Kalam Azad
(c) Jawahar Lal Nehru (d) Indira Gandhi

58. The RBI issues currency notes under the
(a) Fixed Fiduciary System (b) Maximum Fiduciary System
(c) Fixed Minimum Reserve System (d) Proportional Reserve System

59. Which day is the International Human Rights Day?
(a) December 10th (b) October 24th
(c) November 25th (d) None of the above

60. The capital of Pakistan till 1959 was
(a) Islamabad (b) Karachi
(c) Lahore (d) Hyderabad

61. In India FERA has been replaced by
(a) FEMA (b) FETA
(c) FENA (d) FELA

62. The ‘Emerging Player of the Year 2008’ Award was given by ICC to which Sri Lankan cricketer?
(a) Ajantha Mendis (b) Muttiah Muralitharan
(c) C. Kapugedra (d) M. Mahroof
63. The term PC means
(a) Private Computer
(b) Personal Computer
(c) Professional Computer
(d) Personal Calculator

64. English is the official language of which one of the following Indian States?
(a) Nagaland  (b) Tripura
(c) Assam     (d) Manipur

65. Right to Information Act was passed in the year
(a) 2001    (b) 2005
(c) 2004    (d) 2002

66. Who has taken over as Chief Election Commissioner after the retirement of Shri. N. Gopalaswami?
(a) V.S. Sampath
(b) S.Y. Quraishi
(c) Navin Chawla
(d) M.S. Gill

67. The final of the Sultan Afzal Shah Hockey Tournament 2009 was played between
(a) India and Malaysia
(b) India and Pakistan
(c) Pakistan and Malaysia
(d) Malaysia and Japan

68. The 2011 Cricket World Cup shall be co-hosted by
(a) India, Sri Lanka, Pakistan and Bangladesh
(b) India, Sri Lanka and Bangladesh
(c) Bangladesh, Pakistan and Sri Lanka
(d) Bangladesh, Pakistan and India

69. Which one of the following Indian cricketers has been declared ‘The Leading Cricketer of 2008’ by Wisden?
(a) M.S. Dhoni  (b) Virender Sehwag
(c) Anil Kumble  (d) Saurav Ganguly

70. Who is the present chief of ISRO?
(a) G. Madhavan Nair
(b) Anil Kakodkar
(c) Mohan S. Shetty
(d) M. Arvindam

71. The relationship between the value of money and the price level in an economy is
(a) Direct    (b) Inverse
(c) Proportional (d) Stable

72. Depreciation is equal to—
(a) Gross national product—Net
(b) Net national product—Gross
(c) Gross national product—Personal income
(d) Personal income—Personal taxes

73. In an economy, the sectors are classified into public and private on the basis of
(a) employment conditions
(b) nature of economic activities
(c) ownership of enterprises
(d) use of raw materials

74. The author of the book ‘My Experiments With Truth’ is
(a) Maulana Abul Kalam Azad
(b) Govind Vallabhb Pant
(c) M.K. Gandhi
(d) Tara Ali Beg

75. Which one of the following business magnats has been adjudged the ‘Business Person of the Year 2008’ by The Times of India Survey?
(a) Ratan Tata  (b) Rahul Bajaj
76. An important river of the Indian desert is
   (a) Luni (b) Narmada (c) Krishna (d) Beas

77. The Nagarjunasagar dam is constructed on the river?
   (a) Krishna (b) Chambal (c) Kosi (d) Sutlej

78. The imaginary lines joining places of same height at equal intervals are
   (a) Hachures (b) Contours (c) Spot-heights (d) Isomers

79. Stagflation is a situation of
   (a) stagnation and deflation (b) stagnation and recession (c) stagnation and inflation (d) stagnation and recovery

80. What is Khetri in Rajasthan famous for?
   (a) Copper mines (b) Mica mines (c) Bauxite mines (d) Limestone mines

81. Which one of the following rivers forms an estuary?
   (a) Narmada (b) Kaveri (c) Krishna (d) Mahanadi

82. ‘Charak’ was the famous court physician of
   (a) Harsha (b) Chandra Gupta Maurya (c) Ashoka (d) Kanishka

83. Great Stupa at Sanchi is in
   (a) Uttar Pradesh (b) Madhya Pradesh (c) Arunachal Pradesh (d) Andhra Pradesh

84. What was the age of Akbar at the time of his coronation as Kalanaur?
   (a) Thirteen (b) Fifteen (c) Eighteen (d) Twenty

85. Which one of the following stages of the life of man in Aryan Society, in ascending order of age, is correct?
   (a) Brahmacharya-Grihastha-Vanaprastha-Sanyasa (b) Grihastha-Brahmacharya-Vanaprastha-Sanyasa (c) Brahmacharya-Vanaprastha-Sanyasa-Grihastha (d) Grihastha-Sanyasa-Vanaprastha-Brahmacharya

86. The resource which can be used continuously, year-after year are called
   (a) Biotic (b) Abiotic (c) Non-renewable (d) Renewable

87. The coast that belongs to Kerala is known as
   (a) Konkan Coast (b) Malabar Coast (c) Coromandel Coast (d) Canara Coast

88. Anantapur district in Andhra Pradesh is famous for
   (a) Copper (b) Zinc (c) Mica (d) Gold
89. Bahadur Shah was the
   (a) last ruler of the Lodis
   (b) successor of Shar Shah Suri
   (c) last Mughal ruler
   (d) successor of the Maratha ruler Shivaji

90. Mangal Pandey fired the first shot of the Revolt of 1857 at
   (a) Barrackpore  (b) Meerut
   (c) Kanpur       (d) Jhansi

91. Who said ‘Swaraj is my birthright and I shall have it’?
   (a) M.K. Gandhi
   (b) B.G.Tilak
   (c) G.K.Gokhale
   (d) B.R. Ambedkar

92. Water boils as a lower temperature on the hills because
   (a) it is cold on the hills
   (b) there is less carbon dioxide on the hills
   (c) there is a decrease in air pressure on the hills
   (d) there is less oxygen

93. After the Chauri-Chaura incident, Gandhiji suspended the
   (a) Civil Disobedience Movement
   (b) Khilafat Movement
   (c) Non-Cooperation Movement
   (d) Quit India Movement

94. Refrigerator keep food un-spoiled because
   (a) at its low temperature, bacteria and moulds are inactive
   (b) at its low temperature, the germs are killed
   (c) at its low temperature the germs are frozen
   (d) it sterilises the food

95. A person having AB-group of blood and donate blood to person having
   (a) A-group  (b) B-group
   (c) AB-group  (d) O-group

96. Why do birds not have respiratory trouble at the time of flying at high altitude?
   (a) Their lungs are very large
   (b) They fly inactively
   (c) They have extra air sacs
   (d) They use less oxygen

97. Source of energy in ecosystem is
   (a) Sun  (b) Green plants
   (c) Sugar produced in photosynthesis
   (d) ATP

98. Which of the following elements is not present in stainless steel?
   (a) Iron  (b) Tungsten
   (c) Chromium  (d) Nickel

99. Select the one which is not a mixture
   (a) Air  (b) Gasoline
   (c) LPG  (d) Distilled water

100. The temperature which has the same reading on both Fahrenheit and Celsius scales is
   (a) 40°   (b) -40°
    (c) -34°   (d) -140°
51. (d) 52. (d) 53. (d) 54. (c) 55. (b) 56. (b) 57. (b) 58. (c) 59. (a) 60. (b) 61. (a) 62. (a) 63. (b) 64. (a) 65. (b) 66. (c) 67. (a) 68. (b) 69. (b) 70. (a) 71. (d) 72. (a) 73. (c) 74. (c) 75. (a) 76. (a) 77. (a) 78. (b) 79. (c) 80. (a) 81. (a) 82. (d) 83. (b) 84. (a) 85. (a) 86. (d) 87. (b) 88. (d) 89. (c) 90. (a) 91. (b) 92. (c) 93. (c) 94. (b) 95. (c) 96. (c) 97. (a) 98. (b) 99. (d) 100. (b)
PART-III

ENGLISH LANGUAGE

Directions (101-105): In the following questions, some of the sentences have errors and some have none, find out which part of a sentence has an error. The number of that part is your answer. If there is no error, the answer is (d).

101. We saw (a)/ sand sculptures (b)/ in the beach. (c)/ No error. (d)

102. Everybody in the office (a)/ has early, (b)/ haven’t they? (c)/ No error. (d)

103. The teacher told that (a) the students should have gone to the library (b)/ instead having wasted their time. (c)/ No error. (d)

104. He is (a)/ one the tallest boy (b)/ in the class. (c)/ No error. (d)

105. He was awarded (a)/ with a doctorate degree (b)/ for his new invention. (c)/ No error. (d)

Directions (106-110): In the following questions, some of the sentences are given with blanks to be filled in with appropriate words. Four alternatives are suggested for each question. Choose the correct alternative out of the four.

106. The works was _____ by the rains.
   (a) restricted (b) prevented
   (c) hampered (d) obstructed

107. He knows French and German _____ Russian.
   (a) beside (b) besides
   (c) aside (d) except

108. His reputation has been ____ by his foolish acts.
   (a) increased (b) decreased
   (c) retrieved (d) tainted

109. Meditation is _____ way to calm your nerves.
   (a) a best (b) one of the best
   (c) the best (d) an best

110. The Prime Minister of England called _____ the President of America.
   (a) in (b) out
   (c) on (d) at

Directions (111-115): In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

111. INADVERTENT
   (a) thoughtless (b) unintentional
   (c) insane (d) unintelligent

112. BARREN
   (a) insane (b) rough
   (c) infertile (d) lush

113. ABSTAIN
   (a) insist (b) persist
   (c) refrain (d) resist

114. COUNTERFEIT
   (a) constant (b) unknown
   (c) biased (d) fake

115. NOVICE
   (a) expert (b) specialist
   (c) generalist (d) beginner

Directions (116-120): In the following questions, for the following questions, choose the world opposite in meaning to the given word.

116. DIMINISH
   (a) increase (b) improve
   (c) introduce (d) decrease

117. COMPLY
   (a) challenge (b) complain
   (c) conform (d) comete

118. TREACHEROUS
   (a) tactful (b) violent
   (c) faithful (d) false

119. INQUISITIVE
   (a) inadequate (b) immature
   (c) uncomfortable (d) unconcerned

120. AFFLUENCE
   (a) poverty (b) influence
   (c) neglect (d) semblance

Directions (121-125): In the following questions, for the idiom/phrase bold in the
sentence. Chose the alternative which best expresses the meaning of the idiom/phrase.

121. Do not run down your friends in public.
   (a) fight with 
   (b) follow 
   (c) make a mention of 
   (d) criticise

122. Most parents find it difficult to make both ends meet because of inflation.
   (a) to lead a lavish life 
   (b) to live within one’s income 
   (c) to live a miserly life 
   (d) to lead an active life

123. The students were advised to pore over the lessons thoroughly.
   (a) go through 
   (b) go down 
   (c) go off 
   (d) go out

124. The two famous writers crossed swords with each on every issue.
   (a) fought physically 
   (b) crossed the road on meeting 
   (c) took different routes 
   (d) disagreed

125. The traffic came to a standstill after the heavy downpour of rain.
   (a) complete halt 
   (b) accident spot 
   (c) diversion 
   (d) confused disorder

Directions (126-130): In the following questions, a part of the sentence is bold. Below are given alternatives to the underlined part at (a), (b) and (c) which may improve the sentence. Choose the correct alternative. In case no improvement is needed. Your answer is (d).

126. Both the mother-in-laws welcomed the newly weds with garlands of flowers.
   (a) mothers-in-laws 
   (b) mother-in-law 
   (c) mothers-in-law 
   (d) No improvement

127. The workers looked run down.
   (a) happy 
   (b) relaxed 
   (c) exhausted 
   (d) No improvement

128. The relatives comforted the old man whose wife had died.
   (a) sympathized with 
   (b) pitied 
   (c) consoled 
   (d) No improvement

129. They obtained the top-secret information by wrong means.
   (a) clever 
   (b) fraudulent 
   (c) bad 
   (d) No improvement

130. His speech was broadcast over the radio last Thursday.
   (a) was broadcast 
   (b) had been broadcast 
   (c) has been broadcast 
   (d) No improvement

Directions (131-135): In the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentence.

131. To agree to something 
    (a) assure 
    (b) assent 
    (c) adapt 
    (d) adhere

132. A person who withdraws from the word to live in seclusion and often in solitude 
    (a) iconoclast 
    (b) recluse 
    (c) sage 
    (d) priest

133. A lover of books 
    (a) bibliomaniac 
    (b) bibliophile 
    (c) bibliographer 
    (d) bilingualist
134. Occurring at irregular intervals in time
   (a) epidemic  (b) endemic
   (c) temporal   (d) sporadic
135. To keep a great person or event in people’s memory
   (a) communicate (b) commensurate
   (c) commemorate (d) commiserate

Directions (136-140): In the following questions, group of four words are given. In each group, one word is correctly spelt. Find the correctly word.

136. (a) column  (b) autumn
    (c) condamm (d) symptom
137. (a) precartius  (b) preceede
    (c) premier (d) preparation
138. (a) correspondent
    (b) commandent
    (c) superintendent
    (d) attendant
139. (a) imaginary  (b) dictionary
    (c) itinerery (d) stationery
140. (a) pronunciation
    (b) repercussion
    (c) rehabilitation
    (d) tution

Directions (141-150): In the following passage, some of the words have been left out. First read the passage over and try to understand that it is about. Then fill in the blanks with the help of the alternatives given.

PASSAGE

Experts are beginning to suspect that one of the major causes of crime in modern cities is the actual design of the city. Oscar Newman, a professor of architecture, in his book titled “Defensible Space” has published the result of his research on this question.

The effect of environment on crime is two-fold. Prof. Newman’s research shows that some buildings may encourage people not only to interfere but to allow crimes to happen. Crowded apartments in a huge block bring people physically together but isolate them. People living in what is one building with a common entry felt isolated within their own apartments.

They are unconcerned about their neighbours. Some years ago, a girl was stabbed to death without interfering, without even calling the police.

The other obvious effect of the design of buildings is that it affords room for crimes. Hidden nooks and corners, spaces between buildings out of sight are convenient spots where crimes can be committed without the fear of detection.

141. (a) exposition  (b) causes
    (c) theories  (d) results
142. (a) published  (b) printed
    (c) predicted  (d) pasted
143. (a) on  (b) in
    (c) over  (d) about
144. (a) witness  (b) show
    (c) appear  (d) happen
145. (a) spiritually (b) cognitively
    (c) intellectually  (d) mentally
146. (a) essentially  (b) deliberately
    (c) accidentally (d) ideologically
147. (a) for  (b) with
    (c) about  (d) at
148. (a) between (b) through
    (c) over  (d) across
149. (a) viewed  (b) studied  
    (c) observed  (d) watched  
150. (a) sight   (b) vision  
    (c) visual   (d) observation
151. \((256)^{0.16} \times (d)^{0.36}\) is equal to
(a) 64  (b) 16  
(c) 256.25  (d) 4

152. \([1^3 + 2^3 + 3^3 + \ldots + 9^3]\) is equal to
(a) 3575  (b) 2525  
(c) 5075  (d) 3025

153. Two number are in the ratio 3 : 4. The product of their H.C.F. and L.C.M. is 2028. The sum of the number is
(a) 68  (b) 72  
(c) 86  (d) 91

154. In the solution of the multiplication question given below, ‘a’ is s digit.
\[
\begin{array}{c}
\times 7 \\
5396 \\
\end{array}
\]

The value of ‘a’ is
(a) 3  (b) 8  
(c) 6  (d) 4

155. If \(3^{x+y} = 81\) and \(81^{x-y} = 3\), then the value of \(x\) is
(a) 42  (b) \(\frac{15}{8}\)  
(c) \(\frac{17}{8}\)  (d) 39

156. The smallest number that must be subtracted from 1000 to make the resulting number a perfect square is
(a) 37  (b) 38  
(c) 39  (d) 40

157. The sum and product of two numbers are 11 and 18 respectively. The sum of their reciprocals is
(a) \(\frac{2}{11}\)  (b) \(\frac{11}{2}\)  
(c) \(\frac{18}{11}\)  (d) \(\frac{11}{18}\)

158. A man at 100 grapes in 5 days. Each day, he ate 6 more grapes than those he ate on the earlier day. How many grapes did he eat on the first day?
(a) 8  (b) 12  
(c) 54  (d) 76

159. The missing number in the sequence 5, 6, 15, ?, 89, 170, 291, is
(a) 50  (b) 40  
(c) 42  (d) 32

160. Instead of multiplying a number by 0.72, a student multiplied it by 7.2. If his answer was 2592 more than the correct answer, then the original number was
(a) 400  (b) 420  
(c) 500  (d) 560

161. 7, 77, 777 ÷ 77 equals
(a) 1111  
(b) 101001  
(c) 10101  
(d) 1010101

162. Two pipes can fill a cistern separately in 10 hours and 15 hours. They can together fill the cistern in
(a) 6 hours  (b) 7 hours  
(c) 8 hours  (d) 9 hours
163. Number 1, 2, 3, 4, ..., 98, 99, 100 are multiplied together. The number of zeroes at the end of the product on the right will be equal to
(a) 24  (b) 22  
(c) 21  (d) 11  

164. A and B can do a piece of work in 12 days and 15 days respectively. They began to work together but A left after 4 days. In how many more days would B alone complete the remaining work?
(a) $\frac{20}{3}$  
(b) $\frac{25}{3}$  
(c) 6  
(d) 5  

165. Lengths of the perpendiculars from a point in the interior of an equilateral triangle on its sides are 3 cm, 4 cm and 5 cm. Area of the triangle is
(a) $48\sqrt{3}$ cm$^2$  
(b) $54\sqrt{3}$ cm$^2$  
(c) $72\sqrt{3}$ cm$^2$  
(d) $80\sqrt{3}$ cm$^2$  

166. If a triangle with base 8 cm has the same area as a circle with radius 8 cm, then the corresponding altitude (in cm) of the triangle is
(a) $12\pi$  
(b) $20\pi$  
(c) $16\pi$  
(d) $32\pi$  

167. The radius of the base and height or a right circular cone are in the ratio 5 : 12. If the volume of the cone is $314\frac{2}{7}$ cm$^3$, the slant height (in cm) of the cone will be
(a) 12  
(b) 13  
(c) 15  
(d) 17  

168. A sole metallic cone is melted and recast into a solid cylinder of the same base as that of the cone. If the height of the cylinder is 7 cm, the height of the cone was
(a) 20 cm  
(b) 21 cm  
(c) 28 cm  
(d) 24 cm  

169. A single discount equivalent to three successive discounts of 20%, 25% and 10% is
(a) 55%  
(b) 50%  
(c) 48%  
(d) 46%  

170. The marked price of an article is 20% more than its cost price. A discount of 20% is given on the marked price. In this kind of sale, the seller bears
(a) no gain, no loss  
(b) a loss of 4%  
(c) a gain of 4%  
(d) a gain of 8%  

171. A man, a woman and a boy can complete a work in 20 days, 30 days and 60 days respectively. How many boys must assist 2 men and 8 women so as to complete the work in 3 days?
(a) 8  
(b) 12  
(c) 4  
(d) 6  

172. The measures (in cm) of sides of a right angled are given by consecutive integers. Its area (in cm$^2$) is
(a) 9  
(b) 8  
(c) 5  
(d) 6  

173. Which number when added to each of the number 6, 7, 15, 17 will make the resulting numbers proportional?
(a) 6  
(b) 5  
(c) 4  
(d) 3  

174. The ratio of the first and second class fares between two railway stations is 4 : 1 and that of the number of passengers travelling by first and second classes is 1 : 40. If on a day
Rs. 1,100 are collected as total fare, the amount collected from the first class passengers is
(a) Rs. 315  (b) Rs. 275
(c) Rs. 137.50  (d) Rs. 100

175. The marked price of a radio is Rs. 4,800. The shopkeeper allows a discount of 10% and gains 8%. If no discount is allow, his gain per cent will be
(a) 18  (b) 20
(c) 22  (d) 25

176. If A = $\frac{4}{5}$ of B and B = $\frac{5}{2}$ of C, then the ratio of A : C is
(a) 1 : 2  (b) 2 : 1
(c) 2 : 3  (d) 1 : 3

177. The average of all odd numbers less than 100 is
(a) 49.5  (b) 50
(c) 50.5  (d) 51

178. Amount incomes of A and B are in the ratio 4 : 3 and their annual expenses in the ratio 3 : 2. If each saves Rs. 60,000 at the end of the year, the annual income of A is
(a) Rs. 1,20,000  (b) Rs. 1,50,000
(c) Rs. 2,40,000  (d) Rs. 3,60,000

179. In one glass, milk and water are mixed in the ratio 3:5 and in another glass they are mixed in the ratio 6:1. In what ratio should the contents of the two glasses be mixed together so that the new mixture contains milk and water in the ratio 1:1?
(a) 20 : 7  (b) 8 : 3
(c) 27 : 4  (d) 25 : 9

180. The average age of eleven cricket players is 20 years. If the age of the coach is also included, the average age increases by 10%. The age of the coach is
(a) 48 years  (b) 44 years
(c) 40 years  (d) 36 years

181. The average marks of 32 boys of section A of class X is 60 whereas the average marks of 40 boys of section B of class X is 33. The average marks of both the sections combined together is
(a) 44  (b) 45
(c) $\frac{461}{2}$  (d) $\frac{451}{2}$

182. The average age of a husband and wife was 27 years when the married 4 years ago. The average age of the husband, the wife a new-born child is 21 years now. The present age of the child is
(a) 4 years  (b) 3 years
(c) 2 years  (d) 1 years

183. A reduction of 25% in the price of sugar enables a man to buy $7\frac{1}{2}$ kg more sugar for Rs. 360. The original price per kg of sugar was
(a) Rs. 16  (b) Rs. 18
(c) Rs. 20  (d) Rs. 25

184. A man buys some articles at Rs. P per dozen and sells them at Rs. $\frac{P}{8}$ per piece. His profit per cent is
(a) 30  (b) 40
(c) 50  (d) 60

185. When an article is sold at a gain of 20%, it yields Rs. 60 more than when it is sold at a loss of 20%. The cost price of the article is
(a) Rs. 200  (b) Rs. 150
(c) Rs. 140  (d) Rs. 120
186. By selling 1 dozen ball pens, a shopkeeper earned the profit equal to the selling price of 4 ball pens. His profit per cent is
(a) 50  (b) 40
(c) $33\frac{1}{3}$  (d) $31\frac{1}{4}$

187. Two numbers x and y are respectively 20% and 50% more than a third number. x is how much per cent of y?
(a) 30  (b) 45
(c) 60  (d) 80

188. A man received Rs. 8,80,000 as his annual salary of the year 2007 which was 10% more than his annual salary in 2006. His annual salary in the year 2006 was
(a) Rs. 4,80,000  (b) Rs. 8,00,000
(c) Rs. 4,00,000  (d) Rs. 8,40,000

189. A reduction of 10% in the price of a T.V. set brought down its price by Rs. 1,650. The original price of the set (in rupees) was
(a) 16,500  (b) 16,000
(c) 15,000  (d) 16,550

190. The salary of a person is decreased by 25% and then the decreased salary in increased by 25%. His new salary in comparison with his original salary is,
(a) the same  (b) 6.25% more
(c) 6.25% less  (d) 0.625% less

191. A train, with a uniform speed, crosses a platform, 162 meters long, in 18 seconds and another platform, 120 meters long, in 15 seconds. The speed of the train is
(a) 14 km/hr  (b) 42 km/hr
(c) 50 km/hr  (d) 67.2 km/hr

192. In how many years will a sum of Rs. 3,000 yield a simple interest of Rs. 1,080 at 12% per annum?
(a) 3  (b) $2\frac{1}{2}$
(c) 2  (d) $3\frac{1}{2}$

193. The number of boys and girls in a college are in the ratio of 3 : 2. If 20% of the boys and 25% of the girls are adults, the percentage of students, who are not adults, is
(a) 58  (b) $66\frac{2}{3}$
(c) 78  (d) $88\frac{1}{3}$

194. A jeep is changing a car which is 5km ahead. Their respective speeds are 90km/hr. After how many minutes will the jeep catch the car?
(a) 18  (b) 20
(c) 24  (d) 25

195. The difference between the compound and simple interest on Rs. 1,000 for 2 years at the rate of 5% per annum is
(a) Rs. 2  (b) Rs. 2.50
(c) Rs. 3  (d) Rs. 3.50

196. What sum of money at compound interest will amount to Rs. 650 at the end of one year and Rs. 676 at the end of 2 years?
(a) Rs. 520  (b) Rs. 572
(c) Rs. 600  (d) Rs. 625

Directions (197-200): The pie-chart given here shows expenditures incurred by a family on various items and their saving, which amount to Rs. 8,000 in a month.
Study the chart and answer the questions based on the pie-chart

197. How much expenditure is incurred on education?
   (a) Rs. 3,000   (b) Rs. 5,000
   (c) Rs. 4,000   (d) Rs. 7,000

198. The ratio of the expenditure on food to the saving is
   (a) 3 : 2   (b) 2 : 1
   (c) 4 : 3   (d) 3 : 4

199. What is the total expenditure of the family for the month?
   (a) Rs. 40,000   (b) Rs. 48,000
   (c) Rs. 45,000   (d) Rs. 50,000

200. How much more amount is spent on food than on housing?
   (a) Rs. 1,000   (b) Rs. 3,000
   (c) Rs. 2,000   (d) Rs. 2,500

ANSWER SHEET

151 (d) 152 (d) 153 (d) 154 (b) 155 (c) 156 (c) 157 (d) 158 (a) 159 (b) 160 (a)
161 (d) 162 (a) 163 (a) 164 (c) 165 (a) 166 (c) 167 (b) 168 (b) 169 (d) 170 (b)
171 (c) 172 (d) 173 (d) 174 (d) 175 (b) 176 (d) 177 (b) 178 (c) 179 (a) 180 (b)
181 (b) 182 (d) 183 (a) 184 (c) 185 (b) 186 (a) 187 (d) 188 (b) 189 (a) 190 (c)
191 (c) 192 (a) 193 (c) 194 (b) 195 (b) 196 (d) 197 (c) 198 (b) 199 (a) 200 (c)