

All questions carry equal mark of 1 each. Attempt all questions.

Put a tick (✓) mark against the correct answer in the space given in each question.

If a candidate gives more than one answer to one question, it will be treated as wrong answer even if one of the given answers happens to be correct.

SIMPLE ARITHMETIC (50 MARKS)

1. The LCM of two numbers is 495 and their HCF is 5. If the sum of the numbers is 100, then their difference is:

- (a) 10 ()
 (b) 15 ()
 (c) 20 ()
 (d) 25 ()

2. How many three digits numbers are divisible by 7?

- (a) 126 ()
 (b) 127 ()
 (c) 128 ()
 (d) 129 ()

3. $\frac{5}{72} \div \left\{ 1\frac{1}{4} - \frac{1}{2} \left(2\frac{1}{2} - \frac{1}{4} - \frac{1}{6} \right) \right\} = ?$

- (a) $\frac{5}{6}$ ()
 (b) $\frac{5}{3}$ ()
 (c) $\frac{6}{5}$ ()
 (d) $\frac{3}{5}$ ()

4. If $\sqrt{15^4} + 3^{3x-5} = 306$, what is the value of x ?

- (a) 1 ()
 (b) 2 ()
 (c) 3 ()
 (d) 4 ()

5. If α, β are the roots of the equation $x^2 + \sqrt{\alpha}x + \beta = 0$, then the values of α and β are:
- (a) $\alpha = 1, \beta = -1$ ()
- (b) $\alpha = 1, \beta = 2$ ()
- (c) $\alpha = 2, \beta = 1$ ()
- (d) $\alpha = 1, \beta = -2$ ()
6. If $2x^2 - 4x + c = 0$ has equal roots, then the value of x is:
- (a) 1 ()
- (b) 2 ()
- (c) 3 ()
- (d) 4 ()
7. There were 45 students in a hostel. If the number of students increased by 10, the expenses of mess increase by ₹ 50 per day while the average expenditure per head diminishes by ₹ 2. Find the original expenditure of the mess.
- (a) ₹ 720 ()
- (b) ₹ 640 ()
- (c) ₹ 800 ()
- (d) ₹ 880 ()
8. Average age of a family of 6 persons four years ago was 'x' years. A baby is born in between these years. Now the average age of the family is same as it was four years ago. If the present age of baby is 2 years, then find the average age of the family after 3 years.
- (a) 20 years ()
- (b) 23 years ()
- (c) 26 years ()
- (d) 29 years ()
9. If on a marked price, the difference of selling prices with a discount of 30% and two successive discounts of 20% and 10% is ₹ 64, then the marked price (in ₹) is:
- (a) 3600 ()
- (b) 3400 ()
- (c) 3200 ()
- (d) 3000 ()
10. The marked price of an article is ₹ 7500. A shopkeeper gives a discount of 5% and still makes a profit of 25%. The cost price of the article is:
- (a) ₹ 4000 ()
- (b) ₹ 4700 ()
- (c) ₹ 5000 ()
- (d) ₹ 5700 ()

11. 800 chocolates were distributed equally among children in such a way that the number of chocolates received by each child is 20% of the total number of children. How many chocolates did each child receive if 10% of chocolates are taken back by teacher?
- (a) 60 ()
(b) 45 ()
(c) 12 ()
(d) 9 ()
12. Two students appeared for an examination, One of them secured 25 marks more than the other and his mark is 60% of the sum of their marks. The marks obtained by them are _____.
- (a) 50 and 75 ()
(b) 45 and 70 ()
(c) 55 and 80 ()
(d) 60 and 85 ()
13. By selling an article at $\frac{3}{5}$ of the marked price, there is a loss of 25%. The ratio of the marked price and cost price of the article is:
- (a) 3:5 ()
(b) 5:4 ()
(c) 3:4 ()
(d) 4:5 ()
14. A man sold an article at 20% profit, after offering a discount of 20%. If the marked price of the article is ₹ 180 more than its cost price, then find the selling price of the article.
- (a) ₹ 432 ()
(b) ₹ 464 ()
(c) ₹ 398 ()
(d) ₹ 472 ()
15. If the profit earned on selling an article for ₹ 720 is half the loss incurred on selling the same article for ₹ 360, find the selling price of article to earn a profit of 40%.
- (a) ₹ 780 ()
(b) ₹ 820 ()
(c) ₹ 840 ()
(d) ₹ 880 ()
16. The ratio of male to female in a village is 5:4, and the difference between number of males and females is 506. What is the population of the village?
- (a) 2024 ()
(b) 2530 ()
(c) 6120 ()
(d) 4554 ()
17. If 30% of a number is equal to two - third of another number, what is the ratio of first number to the second number?
- (a) 2:15 ()
(b) 20:9 ()
(c) 15:2 ()
(d) 9:20 ()

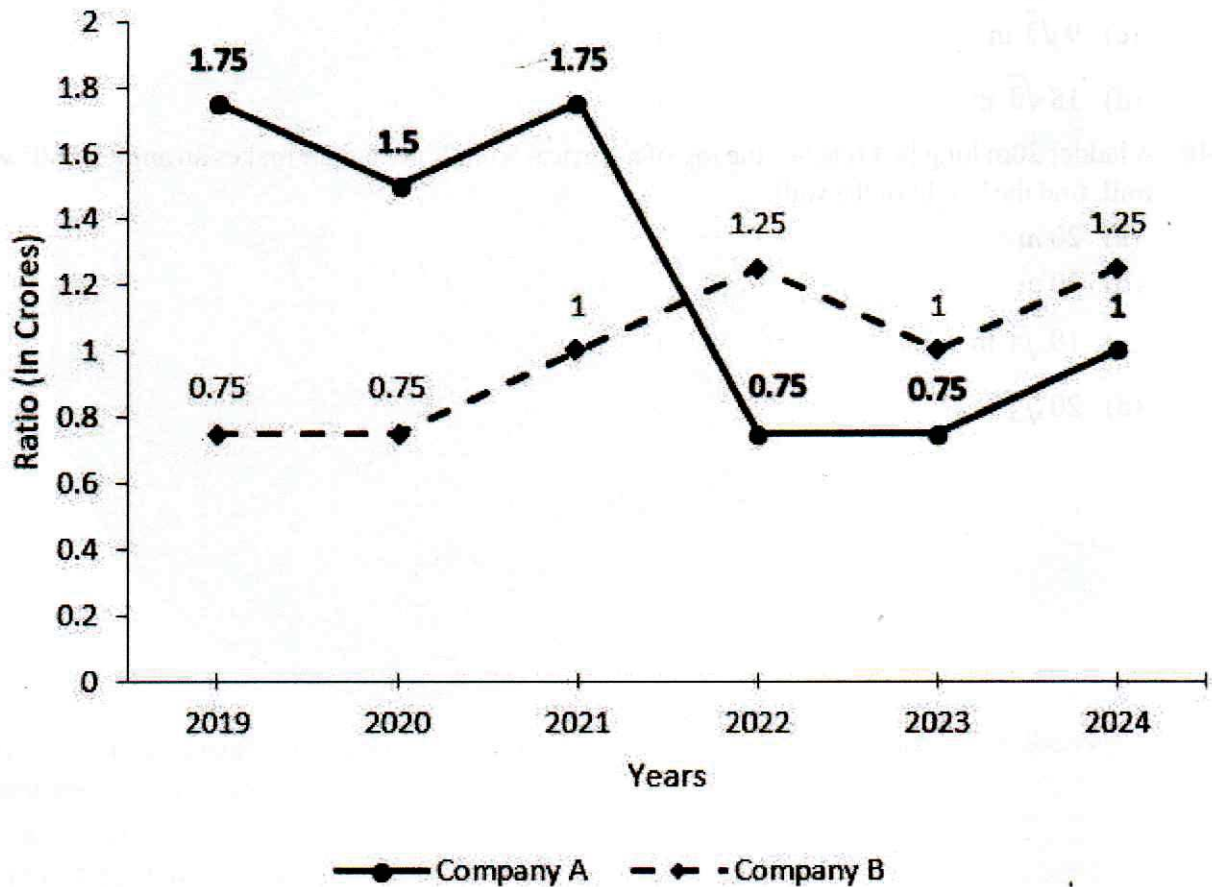
18. The ratio of age of Sawma 3 years ago to the age of Mawia 4 years hence is 5:3. Age of Sawma and age of Mawia is 8 years more and 9 years less than the age of Hminga. Find the present age of Mawia.
- (a) 11 years ()
(b) 28 years ()
(c) 20 years ()
(d) 25 years ()
19. A and B enter into business investing ₹ 12000 and ₹ 14000, respectively. After 5 months, they invested ₹ 6000 more each, and at the end of 9 months the total profit was ₹ 9400. Find the profit received by B.
- (a) ₹ 5400 ()
(b) ₹ 5200 ()
(c) ₹ 5000 ()
(d) ₹ 4800 ()
20. Rama and Siamā enter into a partnership with a capital ratio of 4: 5. After 3 months, Rama withdrew $\frac{3}{4}$ th and receives ₹ 3500 from the total profit at the end of the year, then find the total profit.
- (a) ₹ 13000 ()
(b) ₹ 13500 ()
(c) ₹ 14000 ()
(d) ₹ 14500 ()
21. A canteen requires 471 bananas for a week. Totally, how many bananas will it require for the months of April, May and June?
- (a) 6000 ()
(b) 6231 ()
(c) 6100 ()
(d) 6123 ()
22. If 6 persons working 8 hours a day earn ₹ 8400 per week, then how much 9 persons working 6 hours a day earn in a week?
- (a) ₹ 8400 ()
(b) ₹ 9450 ()
(c) ₹ 16200 ()
(d) ₹ 16800 ()
23. P can do a work in 24 days. When he had worked for 6 days, Q joined him. If they complete the work in 6 more days, In how many days can Q alone finish the work?
- (a) 12 days ()
(b) 10 days ()
(c) 8 days ()
(d) 6 days ()
24. 10 men can do a work in 20 days while 20 women can do the same work in 15 days. In how many days, will 18 men and 18 women do the same work?
- (a) $15/2$ days ()
(b) $16/3$ days ()
(c) $20/3$ days ()
(d) $25/3$ days ()

25. 3 pumps, working 8 hours a day, can empty a tank in 2 days. How many hours a day must 4 pumps work to empty the tank in 1 day?
- (a) 9 ()
(b) 10 ()
(c) 11 ()
(d) 12 ()
26. Tluanga jogs 12 km at a speed of 8 km per hour. At what speed would he need to jog during the next 1.5 hour to have an average of 12 km per hour for the entire jogging session?
- (a) 24 km/hr ()
(b) 20 km/hr ()
(c) 16 km/hr ()
(d) 12 km/hr ()
27. If a Person walks from his house to office at 6 km/hr, he is late by half an hour. However, if he walks at 8 km/hr, he is late by 10 minutes only. What is the distance of his office from his house?
- (a) 7.5 km ()
(b) 8 km ()
(c) 6 km ()
(d) 9 km ()
28. Two boys, Siam and Sanga were coming towards each other. After 4 hours, they met each other and total distance covered by them to meet each other was 720 km. Find the time taken by Siam to travel 340 km, if ratio of speed of Siam to speed of Sanga was 4:5, respectively.
- (a) 4.25 hours ()
(b) 3.4 hours ()
(c) 4.5 hours ()
(d) 5 hours ()
29. Find the compound interest on ₹ 18000 at 20% per annum for 9 months, compounded quarterly:
- (a) ₹ 2638.5 ()
(b) ₹ 2837.25 ()
(c) ₹ 2867.75 ()
(d) ₹ 2632.75 ()
30. The simple interest on a sum of money is $\frac{9}{16}$ of the principal. Find the rate percent if rate and time both are numerically equal?
- (a) 6% ()
(b) 6.5% ()
(c) 7% ()
(d) 7.5% ()
31. The simple interest earned for 25 years at 5% rate of interest is equal to interest earned on compound interest for 2 years., then find the rate of interest on Compound Interest.
- (a) 40% ()
(b) 45% ()
(c) 50% ()
(d) 55% ()

32. What is the volume of a cylinder which has lateral surface area $24\pi \text{ cm}^2$ and height 6 cm?
- (a) $48\pi \text{ cm}^3$ ()
- (b) $36\pi \text{ cm}^3$ ()
- (c) $24\pi \text{ cm}^3$ ()
- (d) $12\pi \text{ cm}^3$ ()
33. Find the cost of ploughing a land whose length and breadth are in the ratio of 12:6 and its perimeter is 840 feet. If the cost of needed to plough a land is ₹ 11 per 100 sq. feet.
- (a) ₹ 5648 ()
- (b) ₹ 4312 ()
- (c) ₹ 6660 ()
- (d) ₹ 7550 ()
34. A zinc sphere of radius 6 cm is drawn into a wire of diameter 2mm. Find the length of the wire.
- (a) 288 m ()
- (b) 278 m ()
- (c) 268 m ()
- (d) 258 m ()
35. Three different rings are to be worn in 4 fingers. In how many ways can this be done if one finger can hold only one ring?
- (a) 12 ()
- (b) 24 ()
- (c) 64 ()
- (d) 81 ()
36. In how many ways can a committee of 5 members be selected from 6 men and 5 ladies, consisting of 3 men and 2 ladies?
- (a) 25 ()
- (b) 50 ()
- (c) 100 ()
- (d) 200 ()
37. How many different 4-digit ATM pin codes can be formed if no digit repeated?
- (a) 10000 ()
- (b) 8540 ()
- (c) 5040 ()
- (d) 3540 ()
38. The angle of elevation of an aeroplane from a point on the ground is 60° . After a flight of 15 seconds, the angle of elevation changes to 30° . If the aeroplane is flying at a constant height of $1500\sqrt{3}$ m, find the speed of the plane.
- (a) 720 km/hr ()
- (b) 750 km/hr ()
- (c) $720\sqrt{3}$ km/hr ()
- (d) $750\sqrt{3}$ km/hr ()

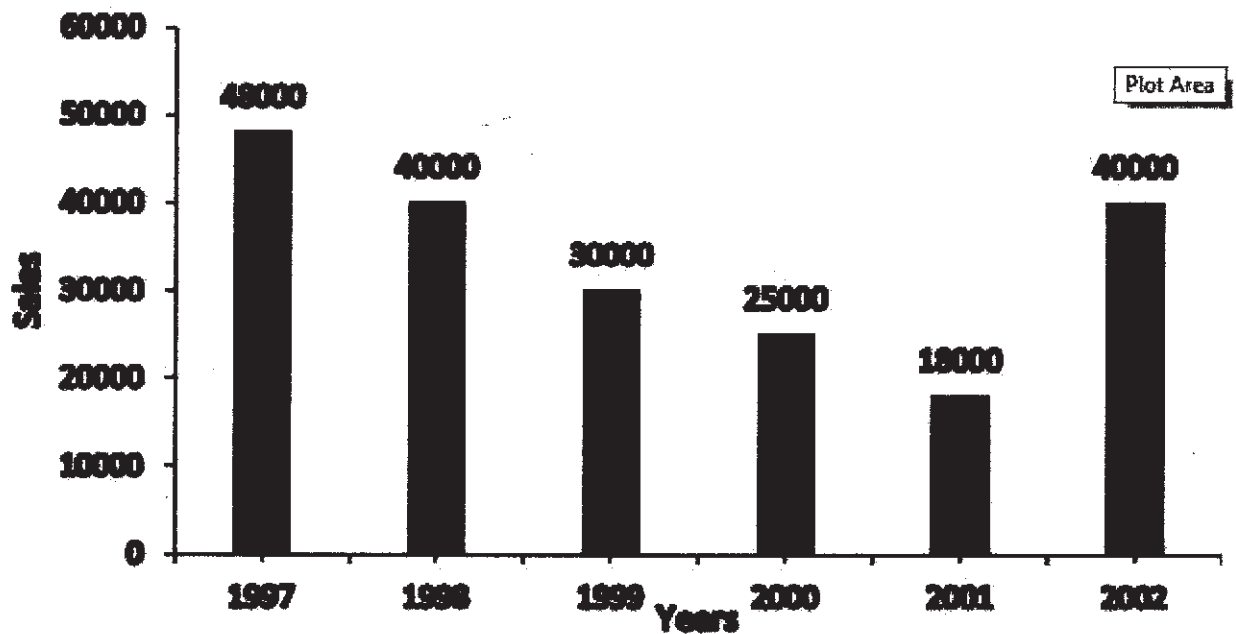
39. A tree breaks due to storm and the broken part bends so that the top of the tree touches the ground making an angle 30° with it. The distance between the foot of the tree to the point where the top touches the ground is 9 m. Find the height of the tree.
- (a) 9 m ()
- (b) 18 m ()
- (c) $9\sqrt{3}$ m ()
- (d) $18\sqrt{3}$ m ()
40. A ladder 20m long just reaches the top of a vertical wall. If the ladder makes an angle of 60° with the wall, find the height of the wall.
- (a) 20 m ()
- (b) 10 m ()
- (c) $10\sqrt{3}$ m ()
- (d) $20\sqrt{3}$ m ()

Direction (Question Nos. 41 & 42): The following line chart gives the ratio of Exports to Imports (in terms of money in Rs. crores) of two Companies over the past five years. Answer the questions based on the given line graph.



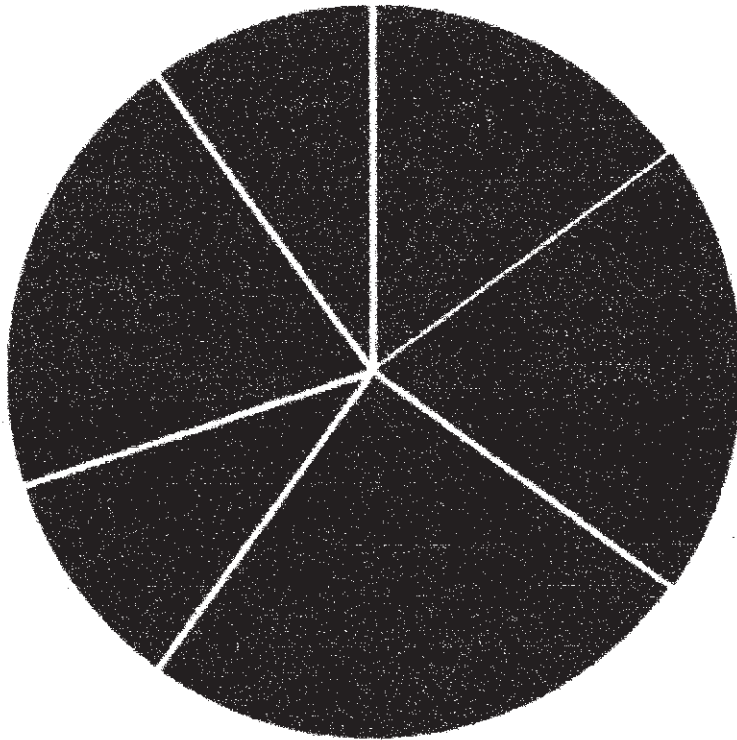
41. In how many of the given years were the exports more than the imports for Company A?
- (a) 2 ()
- (b) 3 ()
- (c) 4 ()
- (d) 5 ()
42. In 2019, the export of Company A was double that of Company B. If the imports of Company A during the year was Rs. 180 crores, what was the approximate amount of imports of Company B during that year?
- (a) 360 crores ()
- (b) 315 crores ()
- (c) 210 crores ()
- (d) 157.5 crores ()

Direction (Question Nos. 43-45): The following bar chart gives the sale of Cellular Phones in six different years. Study the bar chart and answer the questions.



43. The two years between which the rate of change of cellular phones is minimum are ?
- (a) 1997 and 1998 ()
 - (b) 1999 and 2000 ()
 - (c) 2001 and 2002 ()
 - (d) Both option (a) and (b) ()
44. The sum of sales of cellular phones in the years 1999 and 2001 is equal to that in ?
- (a) 1997 ()
 - (b) 1998 ()
 - (c) 2000 ()
 - (d) 2002 ()
45. The percentage increases in sales from 2001 to 2002 was approximately equal to?
- (a) 115 % ()
 - (b) 118 % ()
 - (c) 122 % ()
 - (d) 128 % ()

Direction (Question Nos. 46-48) : The following pie chart shows the percentage distribution of the expenditure incurred in publishing a book. Study the pie-chart and the answer the questions based on it.



46. If for a certain quantity of books, the publisher has to pay ₹ 30,600 as printing cost, then what will be amount of royalty to be paid for these books?
- (a) ₹ 26,150 ()
(b) ₹ 22,950 ()
(c) ₹ 19,450 ()
(d) ₹ 21,200 ()
47. What is the central angle of the sector corresponding to the expenditure incurred on Paper?
- (a) 90° ()
(b) 60° ()
(c) 45° ()
(d) 30° ()
48. The price of the book is marked 20% above the C.P. If the marked price of the book is ₹ 180, then what is the cost of the paper used in a single copy of the book?
- (a) ₹ 36 ()
(b) ₹ 36.50 ()
(c) ₹ 37 ()
(d) ₹ 37.50 ()

Direction (Question Nos. 49 & 50): The following table gives the percentage distribution of population of five states, P, Q, R, S and T on the basis of poverty line and also on the basis of sex. Study the table and the answer the questions based on it.

State	Percentage of population below the Poverty Line	Proportion of Males and Females	
		Below Poverty Line	Above Poverty Line
		M:F	M:F
P	35	5:6	6:7
Q	25	3:5	4:5
R	24	1:2	2:3
S	19	3:2	4:3
T	15	5:3	3:2

49. If the male population above poverty line for State R is 1.9 million, then the total population of State R is:
- (a) 4.5 million ()
- (b) 5.35 million ()
- (c) 6.25 million ()
- (d) 7.5 million ()
50. What will be the male population above poverty line for State P if the female population below poverty line for State P is 2.1 million?
- (a) 2.1 million ()
- (b) 2.3 million ()
- (c) 2.7 million ()
- (d) 3.3 million ()

BASIC COMPUTER KNOWLEDGE (50 MARKS)

51. Which of the following is not used in Local Area Network (LAN)?
- (a) Computer ()
- (b) Modem ()
- (c) Printer ()
- (d) Cable ()
52. Super Computers are mainly used for:
- (a) Mathematical intensive scientific applications ()
- (b) Data-retrieval operation ()
- (c) Input-Output intensive processing ()
- (d) Financial transactions ()

53. Microsoft Word is an example of:
- (a) Operating System ()
 - (b) Application Software ()
 - (c) Input Device ()
 - (d) System Software ()
54. Which protocol is used for e-mail facility among the different hosts?
- (a) FTP ()
 - (b) SMTP ()
 - (c) TELNET ()
 - (d) SNMP ()
55. Microprocessor was introduced in which generation of computer?
- (a) Second generation ()
 - (b) Third generation ()
 - (c) Fourth generation ()
 - (d) Fifth generation ()
56. Which of the following memory is non-volatile?
- (a) SRAM ()
 - (b) DRAM ()
 - (c) ROM ()
 - (d) RAM ()
57. Verification of a login name and password is known as:
- (a) Configuration ()
 - (b) Accessibility ()
 - (c) Authentication ()
 - (d) Logging in ()
58. Choose the smallest memory size:
- (a) Terabyte ()
 - (b) Gigabyte ()
 - (c) Kilobyte ()
 - (d) Megabyte ()
59. Which of the following is not a computer language?
- (a) BASIC ()
 - (b) COBOL ()
 - (c) FORTRAN ()
 - (d) LOTUS ()
60. In a computer, parity bit is added for the purpose of:
- (a) Coding ()
 - (b) Error detection ()
 - (c) Controlling ()
 - (d) Indexing ()

61. Which of the following is not a multitasking operating system?
- (a) DOS ()
 - (b) Linux ()
 - (c) Windows ()
 - (d) Unix ()
62. Small squares on the rectangle that surrounds a graphic which can be used to change the dimensions of the graphic are called:
- (a) Scroll boxes ()
 - (b) Sizing handles ()
 - (c) Status indicators ()
 - (d) Move handlers ()
63. MS Word automatically moves texts to the next line when it reaches the right edge of the screen. This feature is called:
- (a) Carriage return ()
 - (b) Enter ()
 - (c) Word Wrap ()
 - (d) Indentation ()
64. In MS Excel, a numeric value can be treated as label value if it is preceded by:
- (a) Apostrophe (') ()
 - (b) Exclamation (!) ()
 - (c) Hash (#) ()
 - (d) Tilde (~) ()
65. A group of four bits is called:
- (a) Nibble ()
 - (b) Quartet ()
 - (c) Bit set ()
 - (d) Byte ()
66. Which command brings you to the first slide of your presentation in MS PowerPoint?
- (a) Page up ()
 - (b) Next slide button ()
 - (c) Home ()
 - (d) Ctrl + Home ()
67. The second generation of computer was based on:
- (a) VLSI ()
 - (b) Integrated Circuit ()
 - (c) Transistor ()
 - (d) Vacuum Tube ()
68. Which of the following is an absolute cell reference?
- (a) !A!1 ()
 - (b) \$A\$1 ()
 - (c) #A#1 ()
 - (d) A1 ()

69. Which shortcut key inserts a new slide in a current presentation?

- (a) Ctrl + N ()
- (b) Ctrl + O ()
- (c) Ctrl + S ()
- (d) Ctrl + M ()

70. System Operator is abbreviated as:

- (a) Sope ()
- (b) Systop ()
- (c) Syop ()
- (d) Sysop ()

71. Boot implies:

- (a) Basic unit of information in computer ()
- (b) Addresses of sites on World Wide Web ()
- (c) Process of loading or initializing an operating system ()
- (d) Memory Unit ()

72. In MS Word, which of the following will enable you to add a table?

- (a) Draw ()
- (b) Design ()
- (c) Insert ()
- (d) Format ()

73. Except for the _____ function, a formula with a logical function shows the word 'TRUE' or 'FALSE' as a result.

- (a) AND ()
- (b) IF ()
- (c) OR ()
- (d) NOT ()

74. Choose the correct one from the following:

- (a) TB>KB>MB>GB ()
- (b) KB>MB>GB>TB ()
- (c) TB>GB>MB>KB ()
- (d) KB>GB>MB>TB ()

75. Using _____, we can animate an object to move to any direction.

- (a) Motion path animation ()
- (b) Entrance animation ()
- (c) Exit animation ()
- (d) Moving animation ()

76. Peripheral devices such as printers and monitors are considered to be:

- (a) Software ()
- (b) Hardware ()
- (c) Source Code ()
- (d) Data ()

77. Which of the following acts as a buffer between the CPU and the main memory?
- (a) Primary memory ()
 - (b) Cache memory ()
 - (c) Secondary memory ()
 - (d) RAM ()
78. Which tab contains the options to change the font and paragraph formatting in MS Word?
- (a) Insert ()
 - (b) Review ()
 - (c) View ()
 - (d) Home ()
79. How can you apply page break in Word document?
- (a) Ctrl + P ()
 - (b) Shift + Enter ()
 - (c) Ctrl + Enter ()
 - (d) Alt + Enter ()
80. What is a "Footer" in Microsoft Word?
- (a) Content that appears at the bottom of each page ()
 - (b) A tool to align text in the centre ()
 - (c) Content that appears at the top of each page ()
 - (d) A feature to add graphics ()
81. Which one of the following is a 'Date & Time' function in Excel?
- (a) FIND() ()
 - (b) MOD() ()
 - (c) NOW() ()
 - (d) TIME() ()
82. What is the purpose of Tab in excel?
- (a) Moves cell pointer to previous column ()
 - (b) Moves cell pointer to next column ()
 - (c) Moves cell pointer to previous row ()
 - (d) Moves cell pointer to next row ()
83. Which option in MS Excel is used to display the rows that meet certain conditions?
- (a) Find ()
 - (b) Filter ()
 - (c) Format ()
 - (d) Sort ()
84. Columns in MS Excel are named in the form of:
- (a) Alphabets(A,B,C,...) ()
 - (b) Numbers (1,2,3,...) ()
 - (c) Roman Numerals (I,II,III,...) ()
 - (d) None of the above ()

85. The intersection of rows and columns in Excel is called:

- (a) Spreadsheet ()
- (b) Workbook ()
- (c) Document ()
- (d) Cell ()

86. MS Excel can _____ the given data.

- (a) Sort ()
- (b) Statistically analyse ()
- (c) Draw graphs for ()
- (d) All of the above ()

87. The maximum zoom percentage in MS Word is:

- (a) 100% ()
- (b) 300% ()
- (c) 500% ()
- (d) 700% ()

88. What does HTTP stand for?

- (a) Hyper Text Transmission Protocol ()
- (b) Hyper Text Transfer Protocol ()
- (c) Hyper Transfer Text Protocol ()
- (d) Hyper Transmission Transfer Protocol ()

89. Which of the following is not a file extension of an image file?

- (a) .wav ()
- (b) .png ()
- (c) .jpg ()
- (d) .tiff ()

90. What is the smallest unit of data in a computer?

- (a) Byte ()
- (b) Bit ()
- (c) Nibble ()
- (d) Kilobyte ()

91. Which of the following is an open-source operating system?

- (a) Windows ()
- (b) macOS ()
- (c) Linux ()
- (d) iOS ()

92. Which of the following is a function of a router?

- (a) To store data ()
- (b) To direct network traffic between devices ()
- (c) To display images ()
- (d) To play audio ()

93. What is the default file name of a PowerPoint file?
- (a) Presentation ()
 - (b) Mypresentation ()
 - (c) Presentation1 ()
 - (d) Untitled-1 ()
94. What is the full form of CRT in CRT monitor?
- (a) Cathode Ray Test ()
 - (b) Collective Rays Tube ()
 - (c) Cathode Ray Tube ()
 - (d) Combined Ring Tube ()
95. Which of the following is true about RAM?
- (a) It is non-volatile ()
 - (b) It is used to store long-term data ()
 - (c) It is faster than secondary storage ()
 - (d) It permanently stores the operating system ()
96. What is the shortcut key to delete the current slide in PowerPoint?
- (a) Delete ()
 - (b) Backspace ()
 - (c) Insert ()
 - (d) Both (a) and (b) ()
97. Dot Matrix printer is an example of:
- (a) Impact Printer ()
 - (b) Non-Impact Printer ()
 - (c) Thermal Printer ()
 - (d) Plotters ()
98. Which of the following is used to permanently delete a file in Windows?
- (a) Shift + Delete ()
 - (b) Ctrl + Delete ()
 - (c) Alt + Delete ()
 - (d) Alt + Ctrl + Delete ()
99. What does BIOS stand for?
- (a) Basic Input Output System ()
 - (b) Basic Input Outsource System ()
 - (c) Basic Information Output System ()
 - (d) Basic Information Outsource System ()
100. What is the purpose of firewall in a computer network?
- (a) To speed up the internet ()
 - (b) To protect against unauthorised access ()
 - (c) To manage network traffic ()
 - (d) To boost WiFi signal ()