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SSC-I NATIONAL BOOK FOUNDATION FBISE

COMPUTER SCIENCE TEST - UNIT 4: DATA AND ANALYSIS

Name:		Roll No.		Section:

Total Time: 2:30 Hour
Time Allowed: 150 Minutes

Total Marks: 150

PAPER OBJECTIVE
SECTION-A (MARKS 150)

NOTE: Section-A is compulsory. All parts of this section are to be answered on these pages and handed over to the center superintendent. Deleting / overwriting is not allowed. Do not use lead pencil.

Q.1 Fill the relevant bubble for each part. All parts carry one mark.

Questions	A	B	C	D	A B C D
1. Data science is a branch of knowledge that uses programming skills along with mathematics and:	painting	cooking	statistics	sports	○○●○
2. The goal of data science is to extract meaningful information from a collection of:	machines only	data	cables	paper only	○●○○
3. The process of examining raw data to draw conclusions is called:	data analytics	data entry	data hiding	data printing	●○○○
4. Data is a collection of facts, observations or:	machines	information	cables	printers	○●○○
5. Data can be represented by numbers, descriptions, sounds or:	only colours	pictures	only cables	only electricity	○●○○
6. A collection of related data is a:	database only	program	dataset	file extension	○○●○
7. A collection of brain CT scans of tumor patients is an example of a:	compiler	network	operating system	dataset	○○○●
8. Statistics is the analysis of the frequency of:	past events	future events only	imaginary events	no events	●○○○
9. Probability is used to predict the likelihood of:	future events	past events only	no events	printed events	●○○○
10. Data scientists use statistics and probability to find:	only colours	only hardware faults	only viruses	patterns and trends	○○○●
11. Which branch of knowledge helps interpret complex data into simple results?	Painting	Music	Sports	Mathematics	○○○●
12. The graphical representation of data is called:	data visualization	data entry	data deletion	data coding	●○○○
13. Data visualization helps to get:	more viruses	slower systems	longer files	meaningful insight	○○○●
14. Big data refers to handling:	large volumes of data	only small files	only printed data	no data	●○○○

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Questions	A	B	C	D	A B C D
15. Data science is used in predictive analytics, recommendation systems and:	fraud detection	farming tools only	building walls	painting	●○○○
16. Data science is used in industries such as healthcare, finance, marketing and:	technology	none	only farming	only fishing	●○○○
17. Sentiment analysis is used to find:	opinions or feelings in text	passwords	hardware faults	virus codes	●○○○
18. A recommendation system suggests:	only viruses	only passwords	only hardware	products or content to users	○○○●
19. A business problem is a:	solution	gap between existing and desired state	dataset	variable	○●○○
20. Data science combines mathematics, statistics, data analysis and:	painting	carpentry	cooking	machine learning	○○○●
21. Machine learning is a branch of:	painting	biology only	artificial intelligence	chemistry only	○○●○
22. Data in data science is mainly classified into qualitative and:	quadratic	quantitative	quarterly	qualified	○●○○
23. Qualitative data is also called:	numerical data	categorical data	continuous data	ratio data	○●○○
24. Data describing an object or group labelled by category is:	quantitative data	continuous data	qualitative data	interval data	○○●○
25. Qualitative data:	is always numerical	is always continuous	cannot be represented in numerical form	is a measurement	○○●○
26. Colours and places are examples of:	quantitative data	qualitative data	continuous data	ratio data	○●○○
27. Qualitative data is further divided into nominal and:	ratio data	interval data	discrete data	ordinal data	○○○●
28. Data with no order or ranking is:	ordinal data	ratio data	nominal data	interval data	○○●○
29. Gender, blood group and eye colour are examples of:	nominal data	ordinal data	ratio data	interval data	●○○○
30. Data with a specific order or ranking is:	ordinal data	nominal data	ratio data	continuous data	●○○○
31. Test grades (A, B, C) are an example of:	nominal data	ratio data	ordinal data	interval data	○○●○

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Questions	A	B	C	D	A B C D
32. Economic status such as low, middle and high is:	nominal data	ratio data	interval data	ordinal data	○○○●
33. Satisfied, neutral and dissatisfied customer ratings are:	nominal data	ratio data	ordinal data	continuous data	○○●○
34. Quantitative data deals with:	only names	only colours	only labels	numeric values	○○○●
35. Quantitative data is divided into discrete and:	ordinal data	nominal data	qualitative data	continuous data	○○○●
36. Data that can take only certain values and cannot be subdivided is:	continuous data	discrete data	nominal data	ordinal data	○●○○
37. The number of students in a class is an example of:	continuous data	nominal data	ordinal data	discrete data	○○○●
38. The number of fruits in a basket is:	discrete data	continuous data	nominal data	ordinal data	●○○○
39. Data with an unspecified number of possible values between two points is:	continuous data	discrete data	nominal data	ordinal data	●○○○
40. A person's height is an example of:	continuous data	discrete data	nominal data	ordinal data	●○○○
41. Weight of a person is an example of:	continuous data	discrete data	nominal data	ordinal data	●○○○
42. Continuous data is further divided into interval and:	nominal data	ordinal data	ratio data	discrete data	○○●○
43. In interval-scaled data, the differences between measurements are equal but there is no:	difference	order	true zero point	numeric value	○○●○
44. Temperature in Celsius is an example of:	ratio data	nominal data	ordinal data	interval data	○○○●
45. 0 °C does not mean the:	absence of temperature	presence of water	boiling point	number zero	●○○○
46. Interval data can be added, subtracted and:	coloured only	named only	encrypted only	compared	○○○●
47. Ratio-scaled data has a:	no zero point	true zero point	nominal order	only labels	○●○○
48. 0 kg means:	presence of weight	a negative weight	absence of weight	a label	○○●○

Questions	A	B	C	D	A B C D
49. Weight in kilograms is an example of:	interval data	nominal data	ratio data	ordinal data	○○●○
50. Which of these data types has a true zero?	Interval data	Nominal data	Ordinal data	Ratio data	○○○●
51. Which of these data types has no true zero?	Ratio data	Weight	Interval data	Length	○○●○
52. The first and foremost step in a statistical investigation is:	data deletion	data collection	data printing	data hiding	○●○○
53. Data collection methods are divided into:	primary and secondary	digital and analog	fast and slow	big and small	●○○○
54. Original data collected directly from the source is:	secondary data	primary data	big data	stored data	○●○○
55. Data collected by someone else for another purpose is:	primary data	original data	live data	secondary data	○○○●
56. A person from whom statistical information is collected is a:	researcher	programmer	server	respondent	○○○●
57. Which is a primary data collection method?	Books	Websites	Surveys and questionnaires	Research papers	○○●○
58. Which is a primary data collection method?	Government records	Interviews	Published books	Websites	○●○○
59. Which is a primary data collection method?	Research papers	Observation	Past surveys	Books	○●○○
60. Which is a primary data collection method?	Websites	Experiments	Books	Newspapers	○●○○
61. Which is a secondary data source?	Own interview	Own experiment	Published research papers	Own observation	○○●○
62. Which is a secondary data source?	Own interview	Government and institutional records	Direct observation	Own survey	○●○○
63. Which is a secondary data source?	Questionnaire you design	Your experiment	Books and websites	Your observation	○○●○
64. Data collected through a questionnaire designed by you is:	secondary data	primary data	published data	archived data	○●○○
65. Data taken from a published book is:	primary data	secondary data	raw data	live data	○●○○

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Questions	A	B	C	D	A B C D
66. Which is more time consuming to collect?	Secondary data	Published data	Archived data	Primary data	○○○●
67. After data collection, the next important step is:	storage of data	deleting data	hiding data	printing data	●○○○
68. A database is used to:	store and manage large amounts of data	print documents only	connect cables	clean screens	●○○○
69. DBMS stands for:	Data Backup Management System	Database Management System	Digital Base Management Software	Data Base Machine System	○●○○
70. The first database management system was developed in the:	1990s	1960s	2010s	1800s	○●○○
71. Before databases, computer scientists used:	cloud storage	file management systems	big data tools	AI systems	○●○○
72. Which is a relational database management system?	MongoDB	Cassandra	Hadoop	MySQL	○○○●
73. Which is a relational database management system?	MongoDB	Cassandra	NoSQL	Oracle	○○○●
74. Which is a non-relational (NoSQL) DBMS?	MongoDB	MySQL	Oracle	MS-SQL	●○○○
75. Which is a non-relational (NoSQL) DBMS?	MySQL	Cassandra	Oracle	MS-SQL	○●○○
76. Relational databases store data in:	key-value pairs only	graphs only	tables	pictures only	○○●○
77. Non-relational databases store data as key-value pairs, column families or:	graphs	tables only	rows only	pages only	●○○○
78. NoSQL stands for:	new SQL	non-relational DBMS	no storage	number SQL	○●○○
79. An online shopping website stores its products in a:	printer	scanner	database	spreadsheet only	○○●○
80. A table in a database consists of rows and:	pages	folders	columns	shapes	○○●○
81. A row in a table is also called a:	field	record	table	database	○●○○
82. A column in a table is also called a:	record	database	row	field	○○○●

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Questions	A	B	C	D	A B C D
83. The unique identifier for a product in a table, such as Pd001, is the:	Product Name	Product ID	Quantity	Expiry Date	○●○○
84. Cloud-based data storage means storing data:	only on a USB drive	on remote servers over the Internet	only on paper	only in RAM	○●○○
85. Summary statistics provide a quick overview of the:	colour of data	size of hardware	characteristics of data	speed of the Internet	○○●○
86. Summary statistics help to understand trends, outliers and:	the price of data	the colour of charts	hardware faults	distribution of data	○○○●
87. The average of a set of values is called the:	mode	range	median	mean	○○○●
88. The middle value of ordered data is the:	mean	mode	median	range	○○●○
89. The most frequently occurring value is the:	mean	median	range	mode	○○○●
90. The difference between the largest and smallest values is the:	range	mean	mode	median	●○○○
91. The mean of 2, 4, 6 and 8 is:	5	4	6	20	●○○○
92. The median of 3, 5, 7, 9, 11 is:	5	9	7	35	○○●○
93. The mode of 2, 3, 3, 4, 5 is:	2	3	4	5	○●○○
94. The range of 5, 9, 12 and 20 is:	20	5	46	15	○○○●
95. A value far from the others in a dataset is an:	average	mode	outlier	median	○○●○
96. Removing errors and incorrect data from a dataset is called:	data printing	data hiding	data coding	data cleaning	○○○●
97. Preparing data for analysis is called:	data preprocessing	data deletion	data printing	data hiding	●○○○
98. Bar charts, pie charts and line graphs are tools of:	data visualization	data entry	data deletion	hardware design	●○○○
99. A chart showing parts of a whole as slices of a circle is a:	pie chart	bar chart	line graph	scatter plot	●○○○

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Questions	A	B	C	D	A B C D
100. A chart that compares categories using rectangular bars is a:	pie chart	flowchart	concept map	bar chart	○○○●
101. A chart that shows trends over time with connected points is a:	pie chart	bar chart	line graph	table	○○●○
102. Big data refers to datasets so large that traditional software:	cannot manage them	manages them easily	deletes them	prints them	●○○○
103. The three Vs of big data are volume, velocity and:	value only	visibility	variety	validity only	○○●○
104. Volume of big data refers to:	the speed of data	the types of data	the amount of data	the cost of data	○○●○
105. Velocity of big data refers to:	the fast rate at which data is received and acted on	the size of data	the type of data	the colour of data	●○○○
106. Variety of big data refers to:	the amount of data	the speed of data	the price of data	different types of data	○○○●
107. Which of these is NOT one of the three Vs of big data?	Volume	Velocity	Virus	Variety	○○●○
108. Big data comes from sources such as social media, sensors and:	IoT devices	only paper	only books	only letters	●○○○
109. IoT stands for:	Internet of Tools	Internet of Things	Input of Things	Interface of Technology	○●○○
110. IoT devices gather data on:	only colours	customer usage patterns and product performance	only books	only paper	○●○○
111. The tool developed in 2005 to store and manage huge data is:	Excel	Paint	Notepad	Hadoop	○○○●
112. Hadoop was developed in the year:	1960	2005	1990	2020	○●○○
113. Big data helps businesses in:	product development	slowing sales	hiding data	reducing customers	●○○○
114. Big data helps in making:	worse decisions	no decisions	random decisions	optimized decisions	○○○●
115. Big data in healthcare is used to:	predict epidemic outbreaks	print X-rays only	clean hospitals	make medicine bottles	●○○○
116. Wearable devices and sensors collect:	only weather data	only sports data	no data	patient data	○○○●

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Questions	A	B	C	D	A B C D
117. In healthcare, big data helps researchers to find:	colours of hospitals	prices of buses	names of doctors	the best treatment for a disease	○○○●
118. In media and entertainment, big data helps to:	delete content	stop advertising	hide shows	predict what audiences would like to see	○○○●
119. In manufacturing, big data is used for:	stopping production	testing and simulation of new processes	printing only	reducing sales	○●○○
120. Governments use big data to:	hide data from citizens	understand needs of citizens and combat fraud	stop services	increase errors	○●○○
121. A challenge of big data is:	storing and managing very large data	having too little data	having no sources	having no value	●○○○
122. Another challenge of big data is:	data privacy and security	data being free of cost	data being tiny	no data	●○○○
123. Big data analytics can reduce:	costs	profits only	customers	sales	●○○○
124. Machine learning is a branch of AI which uses data and algorithms to:	print documents	clean computers	imitate human learning	store files	○○●○
125. The emergence of machine learning has produced:	less data	no data	more data	only paper	○○●○
126. Data collection by questionnaire is often done with a list of:	answers only	questions	cables	printers	○●○○
127. Which of these is the best way to collect data from many people quickly?	Survey	Single interview	Single experiment	Reading a book	●○○○
128. Interviews are a method of collecting:	secondary data	published data	primary data	stored data	○○●○
129. A questionnaire is a set of:	answers only	questions for gathering information	hardware parts	pictures only	○●○○
130. Sampling means selecting:	a part of the population for study	all the population	no one	only one person	●○○○
131. The group of all individuals being studied is the:	sample	dataset only	respondent only	population	○○○●
132. A smaller group selected from the population is a:	population	dataset	sample	database	○○●○
133. A supermarket's monthly income data can be displayed using a:	keyboard	cable	chart	printer	○○●○

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Questions	A	B	C	D	A B C D
134. Predicting sales for next month from past data is an example of:	predictive analytics	data deletion	data printing	data entry	●○○○
135. Identifying fake transactions in banks uses:	data deletion	only sorting	fraud detection	printing	○○●○
136. Analysing customer reviews to find opinions is:	fraud detection	hardware testing	sentiment analysis	data deletion	○○●○
137. Netflix and YouTube suggesting videos use:	data deletion	recommendation systems	data printing	word processors	○●○○
138. A data scientist needs skills in programming, mathematics and:	painting	cooking	farming	statistics	○○○●
139. A person who analyses large data to find insights is a:	carpenter	data scientist	gardener	plumber	○●○○
140. The first step in any data science project is to:	understand the business problem	buy hardware	print reports	delete data	●○○○
141. Data that is in a ready-to-use form after processing is:	noise	raw data	a bug	information	○○○●
142. Raw facts and figures are:	information	knowledge	wisdom	data	○○○●
143. Processed data that is meaningful is:	raw data	information	noise	code	○●○○
144. The process of converting data into useful information is called:	data hiding	data processing	data printing	data cleaning only	○●○○
145. Data stored in tables with relationships between them is stored in a:	NoSQL database only	relational database	file only	cloud only	○●○○
146. Which of these shows structured data?	A table of student records	An audio clip	A video	A photograph	●○○○
147. Which of these is unstructured data?	A table of marks	A spreadsheet	A video clip	A database record	○○●○
148. Hospital records, bank transactions and sales receipts are examples of:	hardware	software	network devices	data	○○○●
149. Data collected by a researcher through a direct survey of 200 people is:	secondary data	big data only	primary data	archived data	○○●○
150. Which of these is the correct pair?	Nominal – height	Discrete – temperature in °C	Ordinal – exam grades	Continuous – number of students	○○●○

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