

DATE 07/07/17



~~Ablyhak~~
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$$\frac{27}{30}$$

Am 19)

Median is the Middle most Data or the middle number in a set of numbers.

When the no of data is odd like

10, 5, 7, 2, 9, 13, 8

Then first arrange the numbers and the middle most data is median.

i.e, 2, 5, 7, 8, 9, 10, 13

Median = 8

when the no of data is even like

5, 7, 9, 2, 10, 12

Then first arrange the numbers and the average of middle two data is median.

i.e., 2, 5, 7, 9, 10, 12

$$\therefore \text{Median} = \frac{7+9}{2} = 8$$

C.I	F	C.F
10-20	10	10
20-30	5	15 = M
30-40	8	(23)
40-50	7	30
50-60	9	39

$$\Sigma F = N = 39$$

$$\therefore \frac{N}{2} = \frac{39}{2} = 19.5$$

$$\therefore \text{Median} = l + \frac{\frac{N}{2} - M}{f} \times C.I$$

$$\text{Here, } l = 30$$

$$M = 15$$

$$f = 8$$

$$C.I = 10$$

$$\therefore \text{Median} = \frac{30 + 19.5 - 15}{8} \times 10$$

$$= 30 + \frac{4.5}{8} \times 10$$

$$= 30 + \frac{45}{8}$$

$$= 30 + 5.625$$

$$= 35.625$$

OR

$$= 30 + \frac{45}{8}$$

$$= 30 + 5.625$$

$$= 35.625 \quad \underline{\underline{\text{Ans}}}$$

Ans 1 b) Mode is the highest frequency distribution of a table. In case of discrete data the data which occurs most number of times is the Mode. It is represented by Z

Ex:- 2, 1, 5, 2, 7, 2

$$\therefore \text{Mode} = 2$$

C.I	0-9	10-19	20-29	30-39	40-49	50-59
F	10	12	14	16	18	20

C.I	F
-0.5-9.5	10
9.5-19.5	12
19.5-29.5	14
29.5-39.5	16
39.5-49.5	18 f_{h-1}
49.5-59.5	20 $= f_h$

Here $l = 49.5$

$$f_h = 20$$

$$f_{h-1} = 18$$

$$f_{h+1} = 0$$

$$C.I = 10$$

$$\therefore \text{Mode} = l + \frac{f_h - f_{h-1}}{2f_h - f_{h-1} - f_{h+1}} \times C.I$$

$$= 49.5 + \frac{20-18}{2 \times 20 - 18 - 0} \times 10$$

$$= 49.5 + \frac{2}{40-18} \times 10$$

$$= 49.5 + \frac{2}{22} \times 10$$

$$= 49.5 + 0.909$$

$$= 50.409 \quad \underline{A}$$

OK

3 Ans a) Grouping or tabulation of the data on the basis of their common Properties is known as Classification. Classification is done, so to access or find the data easily. Without classification it is difficult, to select a Particular data as all data are gets mixed up.

On the basis of Properties classification are of three types.

- (i) Chronological classification
- (ii) Geographical classification
- (iii) Time - Series

(i) Chronological Classification :-

when the data is classified on the basis of time, then it is known as Chronological Classification.

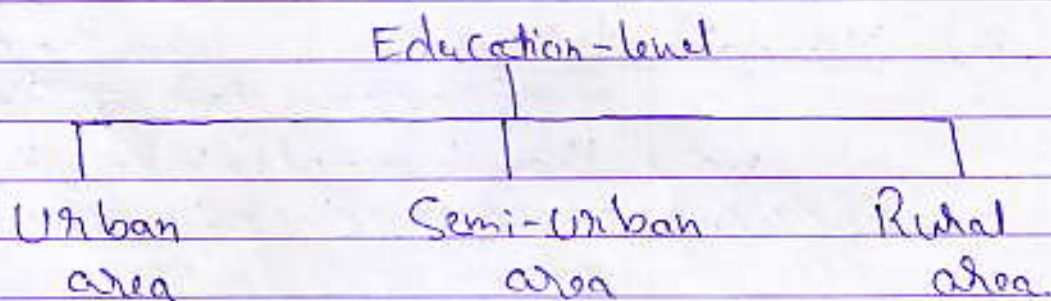
Example 1:- Price list of commodities in the year 2016.

On the basis of Price list and Index number National Income is decided.

(ii) Geographical Classification :-

When the data is classified on the basis of area or region, then it is known as Geographical classification.

Example 1:- Suppose we have the measure the education level of the Country State then we have to divide it into three parts.



(iii) Time-Series classification :-

When the data is classified on the basis of time and size of the data then it is called Time-series classification.

Example 1:- The Price list of 20 commodities in the year 2016.

On the basis of Method it is further classified into :-

- (i) One-way classification
- (ii) Two-way classification.
- (iii) Manifold classification.

i) One-way classification :- When the data is classified on the basis of only one attribute, then it is called one-way classification.

ii) Two-way classification :- When the data is classified on the basis of only two-attribute, then it is called Two-way classification.

iii) Manifold classification :- When the data is classified on the basis of more than two-attribute, then it is called manifold classification. h

Ans 3 b) Primary Data :-

Primary Data is a type of data which is collected by the organization itself or by the most concern person of the organizations. Primary Data are the most important type of Data which contains valuable information.

For example the Bank Manager himself collects the data before

giving loan to someone because the data is very important. Primary data can be collected by conduction Personal Interviews, head to head discussion, ~~some~~ Questionnaires, Direct Meetings e.t.c.

Data collected by Reporters, News Channels, News Paper agencies e.t.c are the type of Primary Data.

Secondary Data :-

Secondary Data is a type of Data which is collected by some other Persons, because Secondary Data is not much as important like Primary Data. When the data collected from the area is very large then Secondary Data is collected, because it is not possible to collect Primary Data there.

Like Census, to measure the Population of a country, Secondary data is collected. Data is collected from each level like in State level, Panchayat level e.t.c.

Write the following way

Primary data	Secondary data
①	①
②	②
③	③

Ans 6a) DBMS stands for Database Management System. DBMS is special System Software for creating and managing the Database. It provides the users to create, manage, update, delete and retrieve the Data. DBMS provides as an Interface between the data and end users or application Programs to easily access the database while ensuring that data is consistently organised.

Main advantages of using a database is that it allows Multiple users to access the same data while maintaining the data integrity. Following are the other advantages of DBMS.

- (i) Data Abstraction and Independence.
- (ii) Locking mechanism of data to be accessed among multiple users.
- (iii) The Main Components of a database is its Data, Data engine that allow user to access the data, and the Database Schema which defines the logical structure of a database.
- (iv) Low cost of Maintaining and updating Database as compared to data stored in conventional file system.
- (v) DBMS provides data security and Integrity, also avoids redundancy of data.

(vi) It provides simple access of data by using a standard Application Program Interface (APIs).

Ans 6 b)

DBMS

i) DBMS stands for Database Management System.

ii) In DBMS we cannot create relationship between two tables.

iii) DBMS may satisfy less than 7 to 8 rules of Dr. E.F. Codd.

iv) In DBMS each table is given extension.

v) There is no security at DBMS.

vi) Example of DBMS are D-Base, Foxbase, FoxPro, etc.

RDBMS

i) RDBMS stands for Relational Database Management System.

ii) In RDBMS we can create relationship between two tables.

iii) RDBMS may satisfy more than 7 to 8 rules of Dr. E.F. Codd.

iv) In RDBMS many tables are grouped together and give one extension.

v) In RDBMS security is at Multilevel.

- a) logging at o/s level
- b) user level
- c) object level

vi) Example of RDBMS are ORACLE, EXCESS, SQL Server, etc.

Ans 7a) Simple Commands of FoxPro are

(i) Create Command :-

Create Command is used to create a Database file. We have to specify the file name after create Command.

Syntax :- Create <filename>

Example :- Create Student

(ii) Display Structure Command :-

Display Structure Command is used to Display the structure of the table or database file which is currently open or in use.

syntax :- Disp Struct

Example :- Disp Struct.

(iii) Delete Command :-

Delete Command is used to make a mark of deletion to the records of a currently use table. Records Marked for deletion are not Physically deleted until Pack Command is used.

Syntax :- Delete <scope>

Example :- Delete all
will make mark of deletion to all the records.

iv) PACK Command :-

Pack Command is used to permanently delete ~~all~~ the records which are marked for deletion by delete Command.

Syntax :- Pack

Example :- Pack

v) Recall Command :-

Recall Command is used to remove the mark of deletion from the records which are marked for delete. Recall Command must be used before Pack or Zap Command.

Syntax :- Recall <scope>

Example :- Recall All

will remove the mark of deletion from all the records at one go.

Ans 3b)

Set talk off
for i = 3 to 100

C = 0

for j = 1 to i

if $i \% j = 0$ then

C = C + 1

endif

endfor

if C = 2

? C

endfor.

Ans 5a)

```
Set talk off
Clear
for i = 1 to 1000
    arm = 0
    for j = i
        do while j > 0
            r = mod(j, 10)
            arm = arm + r * r * r
            j = int(j / 10)
        enddo
        if arm = i, then
            ? i
        endif
    endfor
```

Ans 5b)

```
Set talk off
Clear
? " Press 1. for Addition "
? " Press 2. for Subtraction "
? " Press 3. for Multiplication "
? " Press 4. for Division "
input "Enter number"
input "Enter First number" to a
input "Enter Second number" to b
input "Enter your choice" to ch
Do Case
Case ch = 1
    add = a + b
    ? " addition of two number = ", add

Case ch = 2
    sub = a - b
    ? " Subtraction of two number = ", sub
```



Case $ch = 3$

$$Mul = a * b$$

? " Multiplication of two numbers = ", Mul

Case $ch = 4$

$$div = a / b$$

? " Division of two numbers = ", div

otherwise

? " Wrong choice "

end case.