

Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur (Autonomous)
Department of Zoology
Academic Year: 2018-2019

Surprise Test- I for B.Sc. III

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VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
DEPARTMENT OF ZOOLOGY

Surprise Test I

B.Sc. Part III

Date 26/8/2023 Marks- 10

Q. Attempt any one of the following

1. Explain torsion and detorsion in gastropoda.
2. Explain types of Correlation

AttendanceSurprise test - 1

S.N.	Name of student	Sign
1.	Pooja S. Ekal	<u>B. Ekal</u>
2.	Shivani K. Mane	<u>Shivani</u>
3.	Snehal Sanjivrao Patil	<u>Snehal</u>
4.	Nilesh M. Rajput	<u>Nilesh</u>
5.	Sutan. Akhota	<u>Sutan</u>
6.	Singh Vansha R.	<u>Vansha Singh</u>
7.	Naik Manjula B.	<u>Naik</u>
8.	Abhishek C. Jhiler	<u>Abhishek</u>
9.	Chougule Anna Dhondiba	<u>Chougule</u>
10.	Patil Trupti Tanaji	<u>Patil</u>
11.	Gaikwad Nivedita Babasa	<u>Gaikwad</u>
12.	Patil Rutuja Rajendra	<u>Patil</u>
13.	Pratull M. Chokakkar	<u>Pratull</u>
14.	Sunaj. V. Kapase	<u>Sunaj</u>
15.	Supriya Ramte	<u>Supriya</u>
16.	Parnej A. Golandaj.	<u>Parnej</u>
17.	Rohel Rujay Desa	<u>Rohel</u>
18.	Nisha Kamble	<u>Nisha</u>
19.	Nilam Kamble	<u>Nilam</u>
20.	Vinay M. Attyalkar	<u>Vinay</u>
21.	Monica Godard.	<u>Monica</u>

Gaund

Head,
Department of Zoology
Vivekanand College,
Kolhapur (Autonomous)


Vivekanand College, Kolhapur
Department of Zoology

B.Sc. III

Surprise test II Mark list

Total Marks-10

S.N.	Name of Students	Marks obtained
1	Atyalkar Vinay M.	05
2	Chokakkar Prafull Madan	07
3	Desa Rafel Rujay	06
4	Gaikwad Nivedita Babasaheb	08
5	Godad Monika Anton	09
6	Golandaj Paravej A.	05
7	Hange Omkar Atul	Ab
8	Kamble Nilam Chandrakant	Ab 04
9	Kamble Nisha Dinkar	05
10	Kapse Suraj V.	06
11	Mane Shivani Kiran	07
12	Naik Manjula Bhimrao	06
13	Patil Trupti Tanaji	06
14	Pawar Aniket Anil	Ab
15	Rajput Nilesh Mansing	08
16	Sayyad Yasmeen Ismail	Ab
17	Shirke Abhishek Chandrakant	09
18	Singh Varsha	09
19	Sutar Akshata Parsharam	08
20	Patil Rutuja Rajendra	09
21	Patil Pooja Ravindra	Ab
22	Ekal pooja Suresh	08
23	Chougule Aruna Dhondiba	09
24	Patil Snehal Sarjerao	09
25	Amate Supriya	06
26	Sanap Pooja	Ab


 Head,
 Department of Zoology
 Vivekanand College,
 Kolhapur (Autonomous)

॥ ज्ञान, विज्ञान आणि सुरांस्कार यांसाठी शिक्षण प्रसार ॥

- शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha Kolhapur's

48347

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)

SUPPLIMENT

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Suppliment No. :

Roll No. : 8764

Class : B.Sc.III

Signature
of
Supervisor

Subject :

Test / Tutorial No. :

Div. :

Q Explain types of Correlation

Correlation is the tendency of simultaneous variation between two variables. Correlation analysis is the study of relation-ship between two or more variable. It is the Co-variation of two variables.

Properties :-

- Correlation indicates the degree of relationship between two variables.
- The change in one variable is accompanied by corresponding movement in the other variable.
- According to Tuttle, correlation is an analysis of co-variation between two or more variable.
- The concept of correlation analysis and term correlation originated with Gotton in 1888.
- It is denoted by r i.e. $-1 \leq r \leq 1$
- It is measure of the closeness between two variables.

- IF $r = +1$ Correlation is perfect positive.
- IF $r = -1$ Correlation is perfect negative.
- IF $r = 0$ then there is no correlation between the two variables and said to be independent.

Significance :- The study of correlation is of great significance in practical life, because of following reasons.

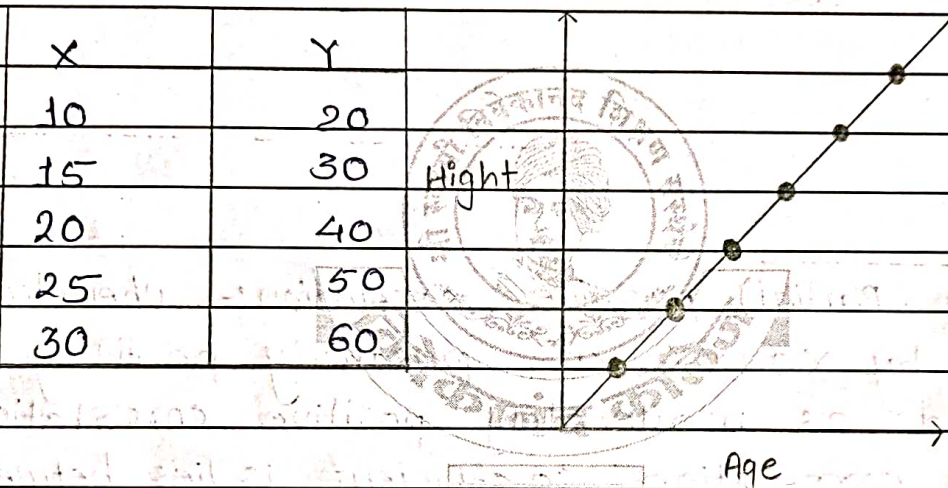
- 1] The study of correlation is of great significance in practical life, because of direction and degree of relationship between two or more variables.
- 2] It helps us to estimate the changes in the value of one variable as a result of change in the value of related variable. This is called regression analysis.
- 3] Correlation facilitates the decision making in the business world.
- 4] It helps in making predication.

1. Types OF correlation :

Depending on its extent and direction the correlation between two variables may be following types:-

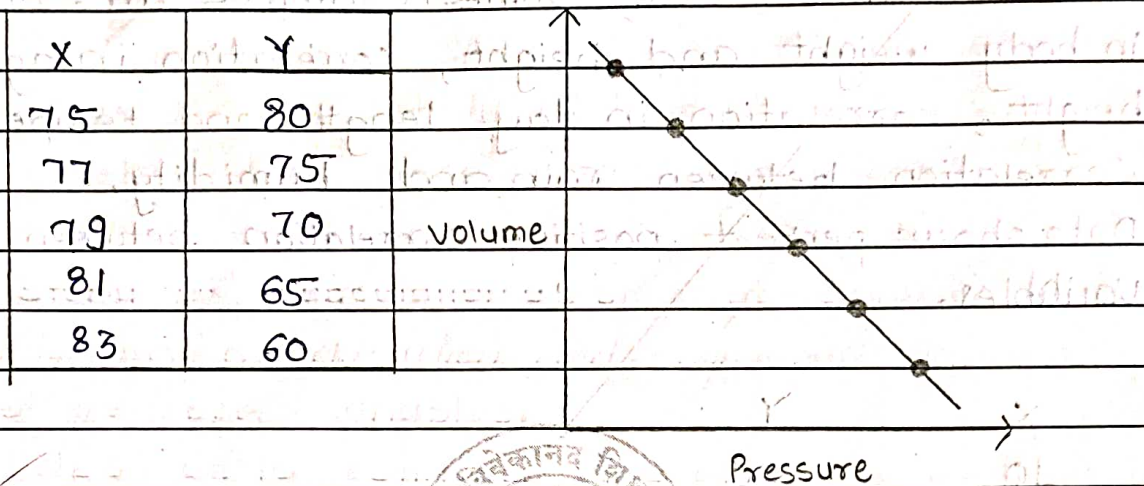
- 1] Perfect positive correlation : When the two variables move proportionally in the same direction. i.e. the increase in the value of one variable leads to corresponding increase in the values of other variable. so the correlation between them is called perfect positive correlation.
- Here the two variable denoted by letter X and Y are directly proportional and fully correlated with each other.

- The correlation coefficient $(r) = +1$ i.e. both variable increase or decrease in the same proportion.
- The example of perfect positive correlation is very rare in nature, but some examples are- correlation in body weight and height, correlation in age and height, correlation in day length and temperature, correlation between rain and humidity.
Data shows perfect positive correlation between X and Y variables.



- 2] Perfect negative Correlation:- when the two variables show negative correlation when one variable increases with a constant interval and another decreases with constant interval. This variables deviates in opposite direction. This is also called inverse correlation.
- Here the two variables denoted by letter X and Y are inversely proportional to each other i.e. when one rises, the other falls in the same proportion.
 - The correlation coefficient $(r) = -1$
 - The example of perfect negative correlation is very rare in nature, but some examples are to that extend.

- Example:- pressure and volume of gas at particular temp. Data showing the perfect negative correlation between X and Y variables.



- Moderately (Partial) positive correlation:- when two variables denoted by X and Y are partially positively correlated is termed as moderately positive correlation.

- Here the correlation coefficient lies between 0 and +1, i.e. $0 < r < 1$

- In moderately positive relationship, the scatter will be there around imaginary mean line, rising from lower ends of both X and Y variables.

e.g. 1] Tallness of plant and manure quality used.

2] Age of husband and age of wife.

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48352

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)**SUPPLIMENT**Signature
of
Supervisor

Suppliment No. :-

Roll No. :-

Class :-

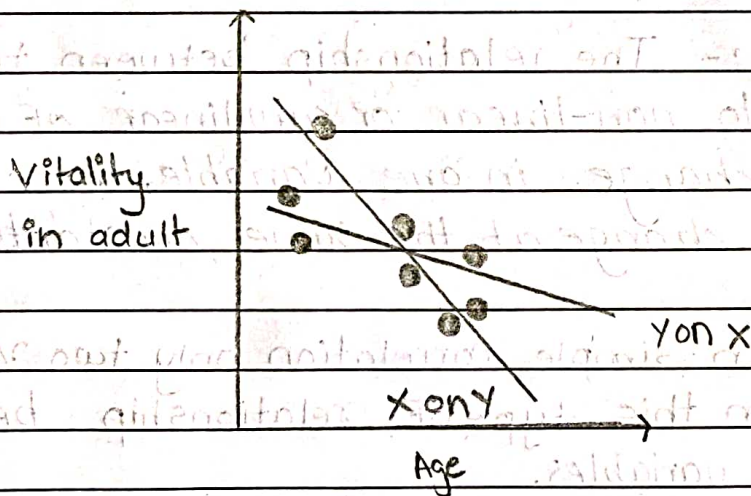
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4] Moderately (Partial) negative correlation:- When two variables denoted by x and y are partially negatively correlated, the correlation is termed as moderately negative correlation.

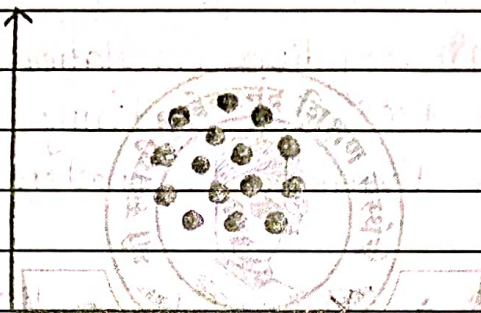
- Here the correlation coefficient (r) lies between 0 and -1. i.e. $-1 < r < 0$
- In moderately negative relationship, the scatter will be there around imaginary mean line, rising from extreme values variables.
e.g:- age and vitality in adult



5] Absolutely no correlation :- When two variables are completely independent of each other, the correlation is termed as no correlation.

- Here the value of correlation coefficient (r) is 0, indicate no linear relationship between two variables.
- Here both variables x and y are completely independent
- Here points are scattered, so that no imaginary line can be drawn.

e.g.:- height and pulse rate, body weight and I.Q.



6] Linear correlation :- Correlation between two variables is said to be linear if there is some constant relationship between two variables, when the values of two variables are plotted, a straight line is formed. It is rare in biological observation.

7] Non-linear correlation :- The relationship between two variables is said to be non-linear or curvilinear if corresponding to a unit change in one variable, the other variable does not change at the same constant.

8] Simple correlation :- In simple correlation only two variables are involved, i.e. in this type of relationship between is in between two variables.

9] Multiple correlation:- In this three or more variables are studied simultaneously. eg. study of relationship between yield of wheat per acre, the amount of rainfall and the Fertilizers applied are example of multiple correlation.

10] Partial Correlation:- In partial correlation, relation between more than two variables is considered but correlation is studied only between two variables, other variable is assumed to constant. e.g. the correlation between amount of Fertilizer and yield of wheat per acre, in case rainfall is assumed to be normal.

