NAAC

CRITERIA: I

STUDENTS' CURRICULUM FEEDBACK

DEPARTMENT OF ZOOLOGY

II SEMESTER

2018-2019

Department: Zoology (Paper-2A)
Second Semester 2019

Analysis and Interpretation of Data:

1. UNIT: 1 Cell is a functional unit of life. How much do you think you have understood about the concept of cell, cell types and their structure and functions ?

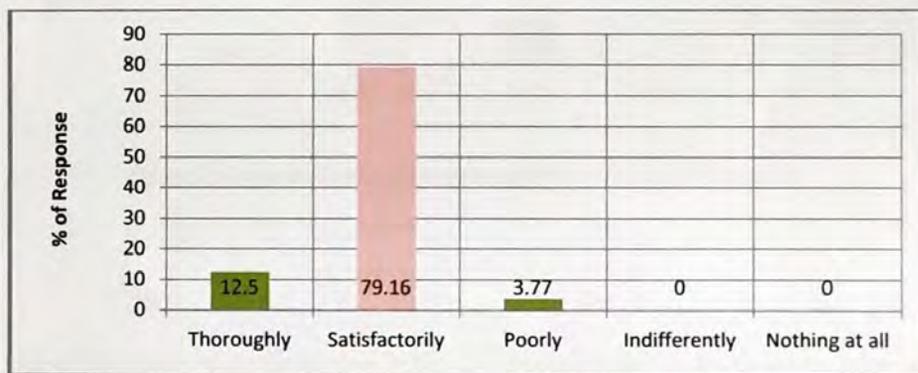| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	3	24	12.5
(b) Satisfactorily	3	19	24	79.16
(c) Poorly	2	2	24	8.33
(d) Indifferently	1	0	24	0
(e) Nothing at all	0	0	24	0

Fig. 1.1: Graphical representation of the response of students

Analysis:

Out of the total 24 students, only 12.5 % of students have understood the concept of cells thoroughly, 79.16 % of students have understood the topic satisfactorily. Only 3.77 % students are found to have poorly understood; may be these students were not consistently present in all the classes taken.

Action taken: 1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

2. UNIT: 1   Cell organelles are different structural bodies in the cell cytoplasm. How much do you think you have understood about different cell organelles and their functions ?

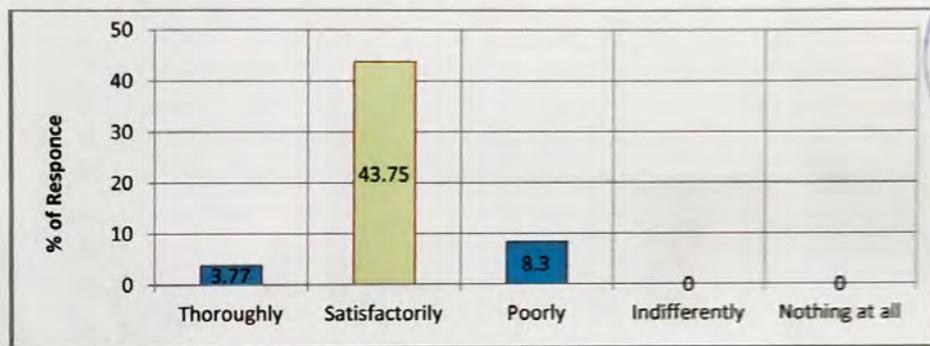| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	2	24	8.33
(b) Satisfactorily	3	18	24	75.00
(c) Poorly	2	4	24	16.6
(d) Indifferently	1	0	24	0
(e) Nothing at all	0	0	24	0

Fig. 1.2: Graphical representation of the response of students

Analysis:

Out of the total 24 students, only 8.33 % of students have understood the concept of cells thoroughly, 79.16 % of students have understood the topic satisfactorily. Only 16.6 % students are found to have poorly understood; may be these students were not consistently present in all the classes taken.

Action taken: 1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

3. UNIT: 2 In Unit II you have to study Euchromatin and Heterochromatin. Is your concept of chromatin clear to you ?

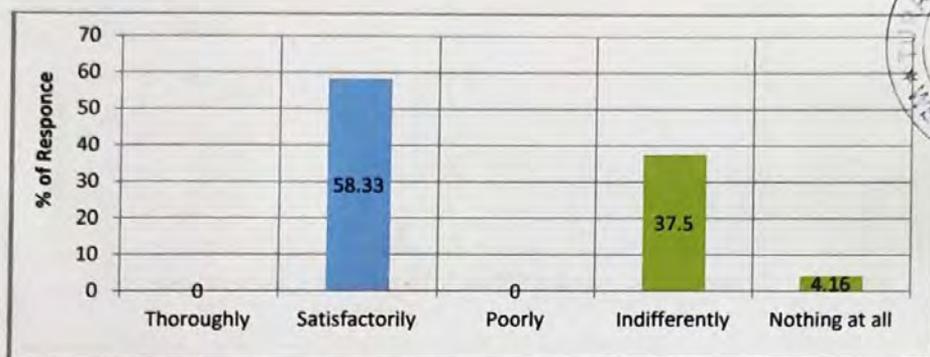| Variable	Grade	No. of Response	Total No. of Response	%
(a) Excellent	4	0	24	0
(b) Very good	3	14	24	58.33
(c) Not taught	2	0	24	0
(d) Can't say	1	9	24	37.5
(e) Don't know	0	1	24	4.16

Fig. 1.3: Graphical representation of the response of students

Analysis:

About 58.33 % of students were found to have responded as very good for understanding the concept of chromatin whereas 37.5 % of students could not say anything; may be they did not attend the class or did not listen properly. About 4.16 % which is only one student may be he/she did not attend the class.

Action taken: 1.   Revised the topic and remedial classes are taken.
           2.   Students' attendance were strictly maintained
           3.   Committed to give effective mentoring to develop their strength and personal attributes.
           4.   Study materials were provided and advice the use of recommended text books and to read as much as possible.

4. **UNIT: 2** You have studied morphology, classification and different types of chromosomes in Unit II. How did your teacher make you understand in the class

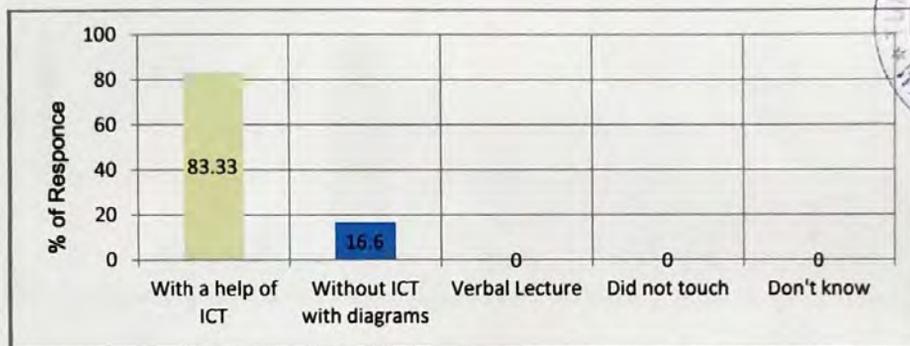| Variable	Grade	No. of Response	Total No. of Response	%
(a) With the help of ICT	4	20	24	83.33
(b) Without ICT with diagrams	3	4	24	16.6
(c) Verbal lecture	2	0	24	0
(d) Did not touch	1	0	24	0
(e) Don't know	0	0	24	0

Fig. 1.4: Graphical representation of the response of students

Analysis:

Maximum of 83.33 % of students have fully attended and know the fact that the classes were taken with the help of ICT with which they could understand the topic by visualizing the diagrams and pictures themselves. Whereas 16.6 % of students response as (b) is may be did not know what is ICT? or did not attend the class at all.

Action taken: 1.   Students were given awareness about the ICT tools which are being used in the department for effective teaching.

5. UNIT: 3 How well were you able to understand the concept of cell division and its relation to cancer ?

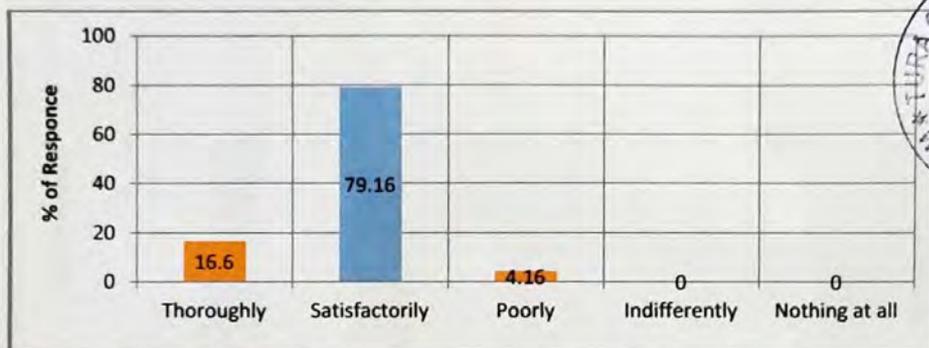| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	4	24	16.6
(b) Satisfactorily	3	19	24	79.16
(c) Poorly	2	1	24	4.16
(d) Indifferently	1	0	24	0
(e) Nothing at all	0	0	24	0

Fig. 1.5: Graphical representation of the response of students

Analysis:

Only about 16.6 % of students could understand the topic of cell division and cancer thoroughly. Maximum of 79.16 % of students were found to understand the topic satisfactorily and only one student (4.16 %) could not understand the topic properly.

Action taken: 1.   *Revised the topic and remedial classes are taken.*
2.   *Students' attendance were strictly maintained*
3.   *Committed to give effective mentoring to develop their strength and personal attributes.*
4.   *Study materials were provided and advice the use of recommended text books and to read as much as possible.*

6. UNIT: 3 Immunity is the ability of the body to fight against disease. Were the different types of immunity and the cells and organ of the immune system taught to you ?

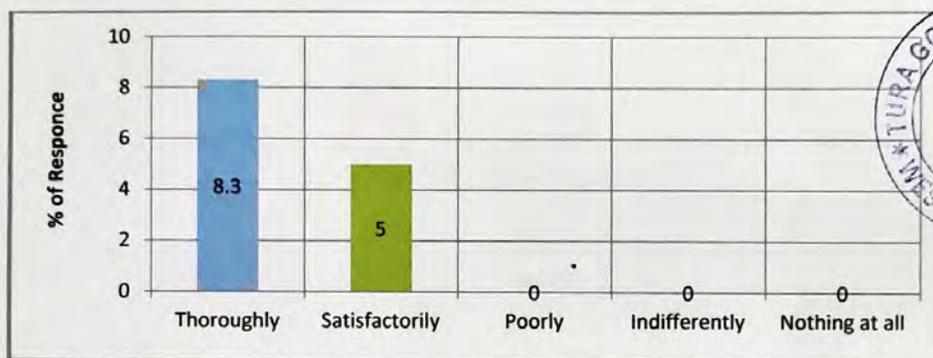| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	12	24	50.00
(b) Satisfactorily	3	12	24	50.00
(c) Poorly	2	0	24	0
(d) Indifferently	1	0	24	0
(e) Nothing at all	0	0	24	0

Fig. 1.6: Graphical representation of the response of students

Analysis:

About 50 % students have agreed and response to have thoroughly understood the topic of Immunity and 50 % students has agreed to understand the topic satisfactorily.

Action taken: 1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

7. UNIT: 4 Did you understand the principle of multiple alleles and how it implies on the ABO blood groups in man ?

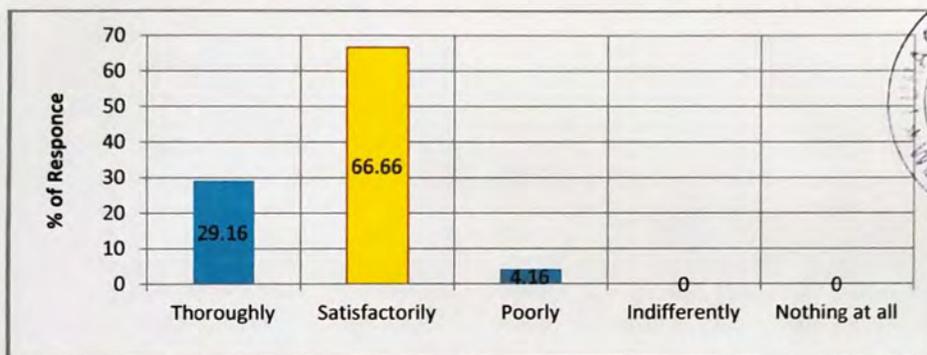| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	7	24	29.16
(b) Satisfactorily	3	16	24	66.66
(c) Poorly	2	1	24	4.16
(d) Indifferently	1	0	24	0
(e) Nothing at all	0	0	24	0

Fig. 1.7: Graphical representation of the response of students

Analysis:

Regarding the principles of multiple alleles and ABO blood groups in man, about 29.16 % of students were found to understand the topic thoroughly whereas 66.66 % of students were found to understand the topic satisfactorily. Only one student (4.16 %) understood the topic poorly may be because he did not attend fully in the class.

Action taken: 1.   *Revised the topic and remedial classes are taken.*
2.   *Students' attendance were strictly maintained*
3.   *Committed to give effective mentoring to develop their strength and personal attributes.*
4.   *Study materials were provided and advice the use of recommended text books and to read as much as possible.*

8. UNIT: 4 Were you able to understand and differentiate between different types of genetic interactions?

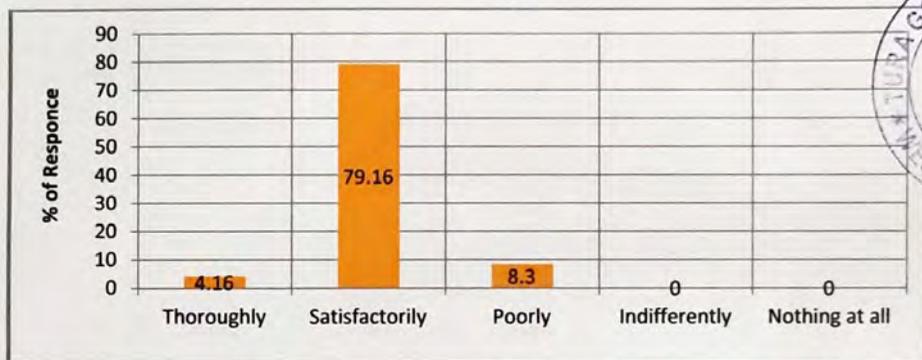| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	1	24	4.16
(b) Satisfactorily	3	19	24	79.16
(c) Poorly	2	4	24	8.3
(d) Indifferently	1	0	24	0
(e) Nothing at all	0	0	24	0

Fig. 1.8: Graphical representation of the response of students

Analysis:

Only one student (4.16 %) could understand the topic of genetic interaction thoroughly. About 79.16 % of students were found to understand the topic satisfactorily. Some four students (8.3 %) have poorly understood the topic may be because they did not fully attended in the class or very slow in understanding the molecular concept of genes.

Action taken: 1. Revised the topic and remedial classes are taken.
 2. Students' attendance were strictly maintained
 3. Committed to give effective mentoring to develop their strength and personal attributes.
 4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

9. **UNIT: 5** Linkage and Crossing over is study of how chromosomes are linked together and how chromosomes are exchanged. Do you understand how crossing over influences the variation of characters from one generation to the next ?

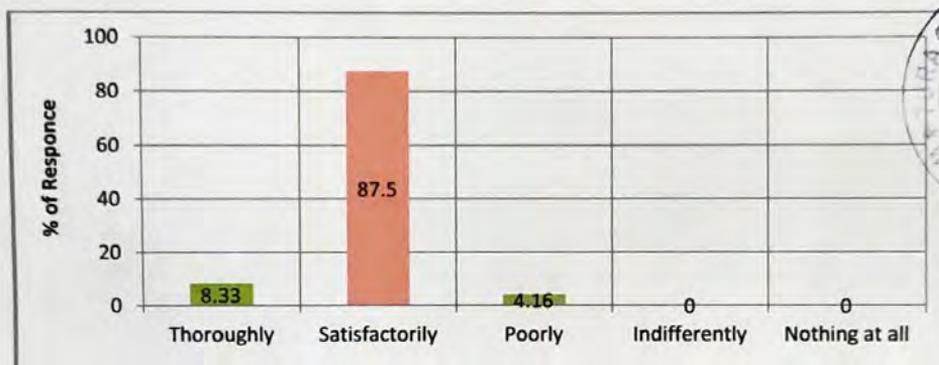| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	2	24	8.33
(b) Satisfactorily	3	21	24	87.5
(c) Poorly	2	1	24	4.16
(d) Indifferently	1	0	24	0
(e) Nothing at all	0	0	24	0

Fig. 1.9: Graphical representation of the response of students

Analysis:

Only two students (8.33 %) were found to understand the topic of Linkage and Crossing over of chromosomes thoroughly. Whereas 87.5 % of students could understand satisfactorily. Only one student (4.16 %) have understood the topic poorly may be because he/she is a slow learner or did not attend the class.

Action taken:
1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

10.UNIT: 5 Chromosomal aberration is the cause of many mutations in an organism. Do you understand how the loss or addition of a chromosomal segment can cause abnormal phenotyphic changes in an organism ?

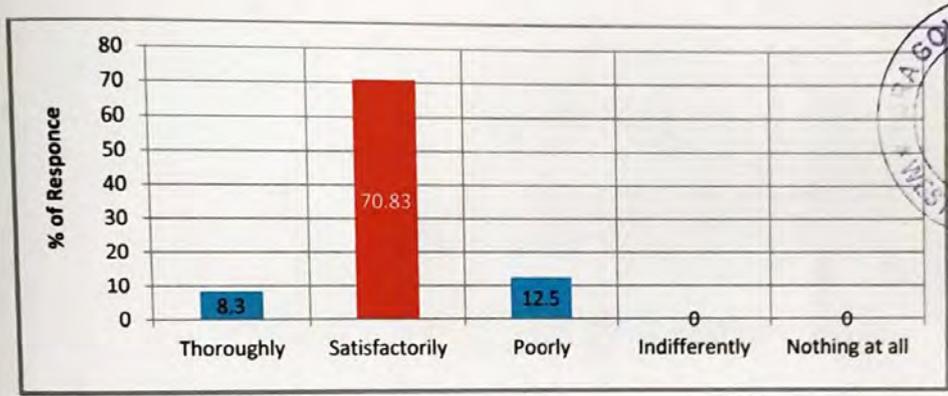| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	4	24	8.3
(b) Satisfactorily	3	17	24	70.83
(c) Poorly	2	3	24	12.5
(d) Indifferently	1	0	24	0
(e) Nothing at all	0	0	24	0

**Fig. 1.10: Graphical representation of the response of students**

Analysis:

Only four students (8.3 %) could understand the topic of chromosomal aberrations and mutations thoroughly. 70.83 % of students were found to understand the topic satisfactorily. Only 3 students were found to understand the topic poorly.

Action taken: 1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

Summary Table:

Variable	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total No.	%
					No. of Response							
4	3	2	0	20	4	12	7	1	2	4	55	22.91
3	19	18	13	4	19	12	16	19	21	17	158	65.83
2	2	4	0	0	1	0	1	4	1	3	16	6.66
1	0	0	9	0	0	0	0	0	0	0	9	3.75
0	0	0	1	0	0	0	0	0	0	0	1	0.41
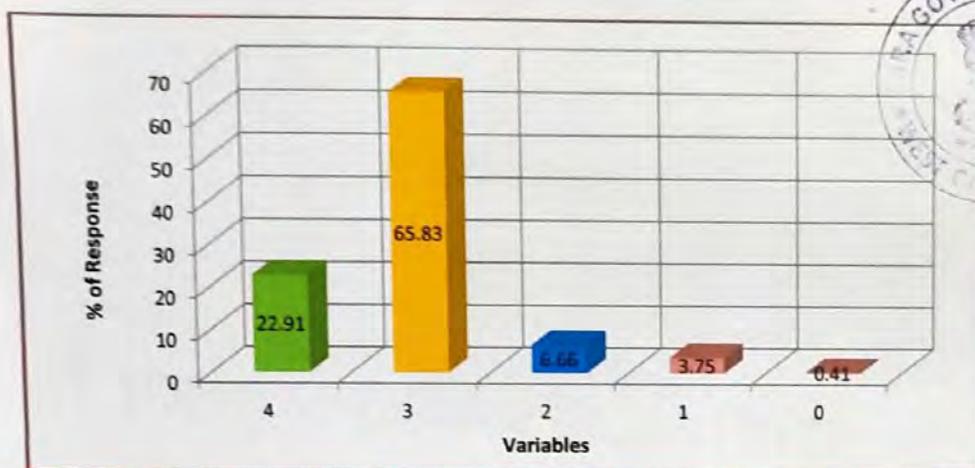
Findings:

1. 22.91 % of students were found to have thorough with the subjects taught and have found to be aware of syllabus prescribed by the NEHU. They were also found to be aware of the teaching methodology being used in the class room. 65.83 % of students were found to have satisfied with the teachings and understood the subject satisfactorily. About 6.66 % of students were found to have understood the subject poorly, 3.75 % of students have responded as indifferently and 0.41 % of students have responded as nothing at all or don't know. Therefore, it can be concluded that majority of the students have understood the subject taught up to certain extend and satisfied with the teachings, whereas about 10 % of students have problems with their understanding or they fail to attend the class regularly or not fully attended the classes.

2. Students need more guidance, mentoring, discussions etc. in the class.

3. ICT is being used in all the classes for effective teaching.

4. More of advice needs to be given to give more emphasis on development of reading culture.

Tura Govt. College, Tura.

HOD
Dept. of Zoology
Tura Govt. College, Tura

NAAC

CRITERIA: I

STUDENTS' CURRICULUM FEEDBACK

DEPARTMENT OF ZOOLOGY

IV SEMESTER

2018-2019

Department: Zoology (Paper-4A)
Fourth Semester 2019

Analysis and Interpretation of Data:

1. **UNIT: 1** Gastrulation is the formation of three germ layers during embryogenic development. Did you understand the different processes by which these three germ layers are formed ?

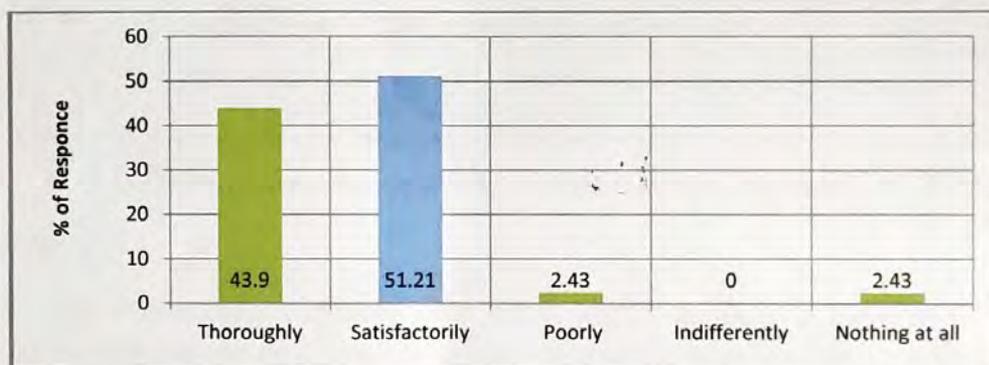| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	18	41	43.90
(b) Satisfactorily	3	21	41	51.21
(c) Poorly	2	1	41	2.43
(a) Indifferently	1	0	41	0
(b) Nothing at all	0	1	41	2.43

Fig. 1.1: Graphical representation of the response of students

Analysis:

About 434.90 % of students were found to have understood the topic of gastrulation and formation of three germ layers thoroughly. 51.21 % of students were found to have understood the topic satisfactorily. Only one student (2.43 %) was found to have understood poorly and another student responded as nothing at all; may be these students did not attend the class.

Action taken: 1.   Revised the topic and remedial classes are taken.
2.   Students' attendance were strictly maintained
3.   Committed to give effective mentoring to develop their strength and personal attributes.
4.   Study materials were provided and advice the use of recommended text books and to read as much as possible.

2. UNIT: 1   How was metamorphosis in insects and frog taught to you ?

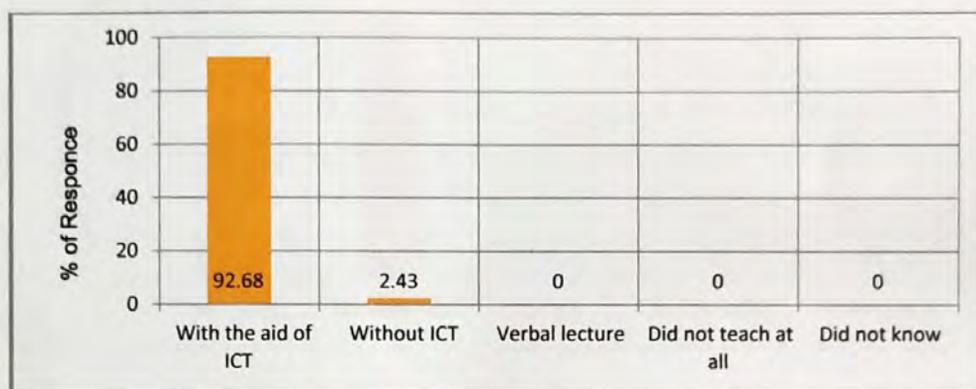| Variable	Grade	No. of Response	Total No. of Response	%
(a) With the aid of ICT	4	38	41	92.68
(b) Without ICT	3	1	41	2.43
(c) Verbal lecture	2	0	41	0
(d) Did not teach at all	1	0	41	0
(e) Did not know	0	0	41	0

Fig. 1.2: Graphical representation of the response of students

Analysis:

92.68 % of students understood what is ICT ? and so responded as expected. Only one student responded as without ICT; may be the student have not seen ICT or did not attended the class or may be he/she did not understand what is ICT?. The other two students did not give any response; may be because they did not understand the question.

Action taken: 1.   Students were given awareness about the ICT tools which are being used in the department for effective teaching.

4. UNIT: 2 The amount of energy decreases as it flows from one trophic level to another . Are you able to comprehend why along food chain will not be feasible in an ecosystem

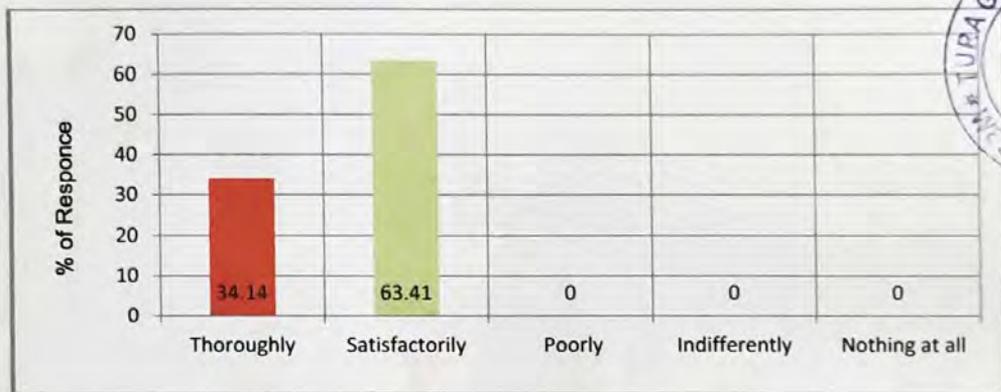| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	14	41	34.14
(b) Satisfactorily	3	26	41	63.41
(c) Poorly	2	0	41	0
(d) Indifferently	1	0	41	0
(e) Nothing at all	0	0	41	0

Fig. 1.4: Graphical representation of the response of students

Analysis:

        34.14 % of students were found to have understood the topic of energy flow in the food chain in the ecosystem thoroughly whereas 63.41 % of students have understood the topic satisfactorily.

Action taken: 1.   *Revised the topic and remedial classes are taken.*
              2.   *Students' attendance were strictly maintained*
              3.   *Committed to give effective mentoring to develop their strength and personal attributes.*
              4.   *Study materials were provided and advice the use of recommended text books and to read as much as possible.*

5. **UNIT: 3** Population ecology is the study of population of species in relation to its environment which itself is the regulatory factor. Did you understand how can the environment affect and regulate the population size and density ?

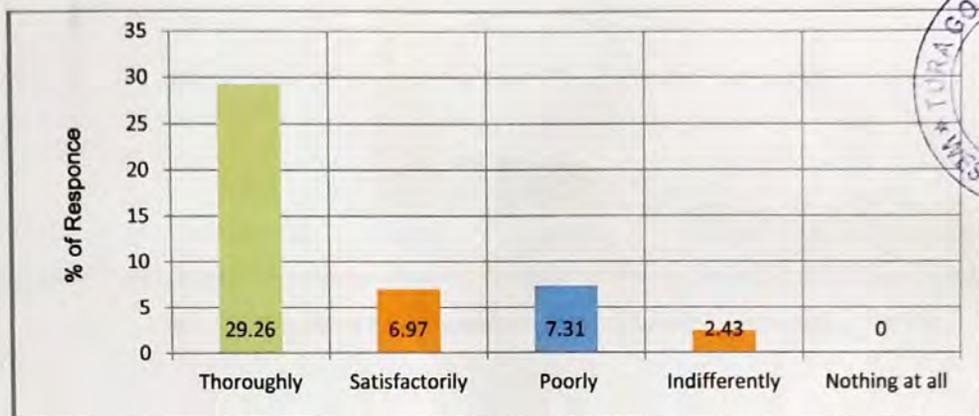| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	12	41	29.26
(b) Satisfactorily	3	25	41	60.97
(c) Poorly	2	3	41	7.31
(d) Indifferently	1	1	41	2.43
(e) Nothing at all	0	0	41	0

Fig. 1.5: Graphical representation of the response of students

Analysis:

29.26 % of students were found to have understood the topic of population ecology thoroughly whereas 60.97 % of students have understood the topic satisfactorily. Three students (7.31 %) have responded as poorly understood; may be because they are slow learner or not fully attended the class and only one student have responded as indifferently understood which may be because he/she must have attended the last part of the class.

Action taken: 1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

6. UNIT: 3 Do you agree that renewable resources could become non-renewable resources ?

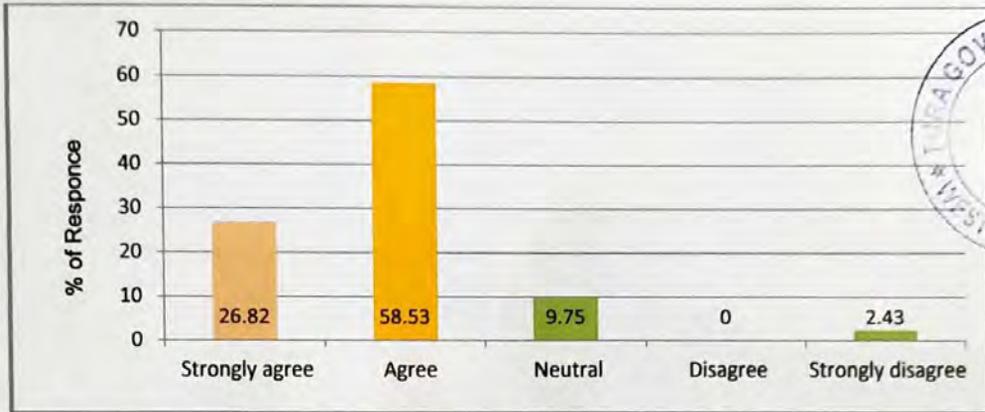| Variable	Grade	No. of Response	Total No. of Response	%
(a) Strongly agree	4	11	41	26.82
(b) Agree	3	24	41	58.53
(c) Neutral	2	4	41	9.75
(d) Disagree	1	0	41	0
(e) Strongly disagree	0	1	41	2.43

Fig. 1.6: Graphical representation of the response of students

Analysis:

About 26.82 % of students were found to have strongly agreed that renewable resources could become non-renewable resources; hence they have understood the topic thoroughly whereas 58.53 % of students have just agreed with the question may be they were confused little bit. 9.75 % of students answered neutral; may be they were fully confused to agree upon. Another one student was strongly disagree with the question; may be his/her concept of topic was completely different or may be unable foreseen the situation.

Action taken: 1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

7. UNIT: 4   In Pisciculture, you are supposed to study culture and management of fishes. Have you understood the different methods of composite fish and induced breeding so that you can start a fish farm on your own ?

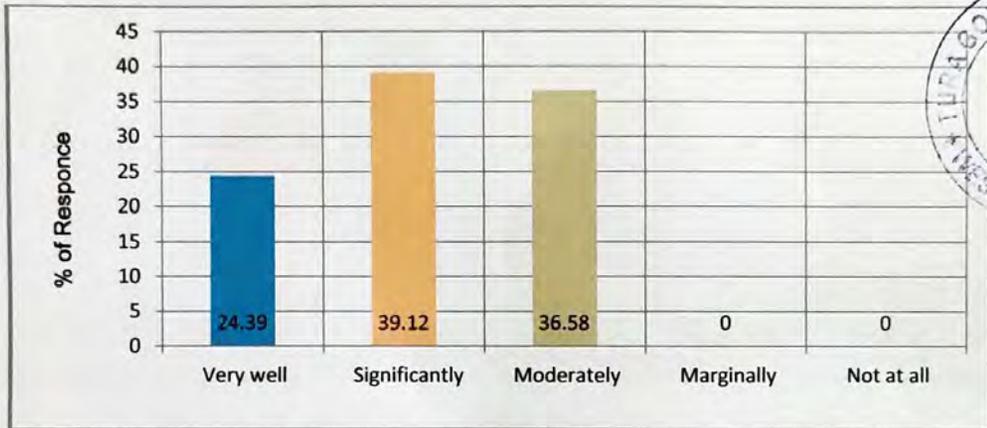| Variable	Grade	No. of Response	Total No. of Response	%
(a) Very well	4	10	41	24.39
(b) Significantly	3	16	41	39.12
(c) Moderately	2	15	41	36.58
(d) Marginally	1	0	41	0
(e) Not at all	0	0	41	0

Fig. 1.7: Graphical representation of the response of students

Analysis:
    About 24.39 % of students have been found to understand the topic on Pisciculture and Management of Fishes very well. 39.12 % of students were found to have understood the subject significantly. Whereas 36.58 % of students have responded to be moderately understood the topic.

Action taken: 1.   Revised the topic and remedial classes are taken.
              2.   Students' attendance were strictly maintained
              3.   Committed to give effective mentoring to develop their strength and personal attributes.
              4.   Study materials were provided and advice the use of recommended text books and to read as much as possible.

8. UNIT: 4 Sericulture is the practice of breeding silk worm for the production of raw silk. Have you learnt at which stage silk can be obtained and the importance of raw silk ?

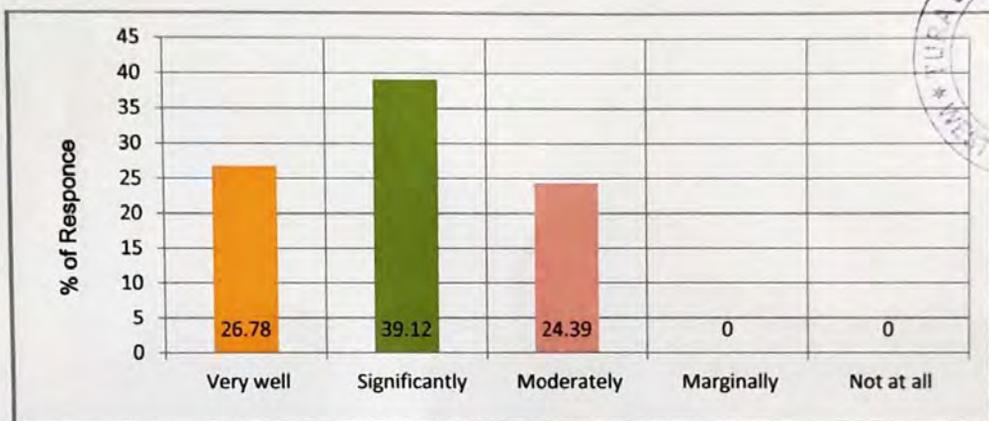| Variable	Grade	No. of Response	Total No. of Response	%
(a) Very well	4	15	41	36.58
(b) Significantly	3	16	41	39.12
(c) Moderately	2	10	41	24.39
(d) Marginally	1	0	41	0
(e) Not at all	0	0	41	0

Fig. 1.8: Graphical representation of the response of students

Analysis:

About 36.58 % of students have been found to understand the topic on Sericulture and production of silk very well. 39.12 % of students were found to have understood the subject significantly. Whereas 24.39 % of students have responded as moderately understood.

Action taken: 1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

9. **UNIT: 5** How far did you understand regarding the topic Apiculture ?

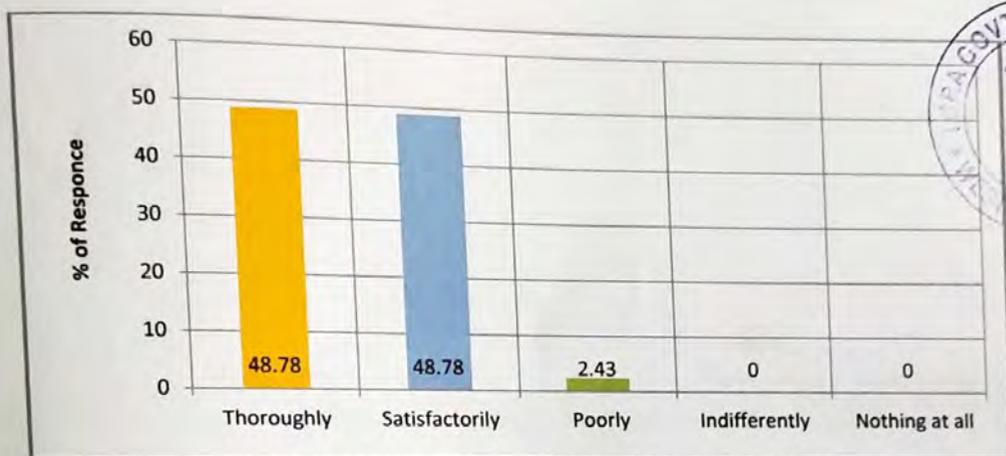| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	20	41	48.78
(b) Satisfactorily	3	20	41	48.78
(c) Poorly	2	1	41	2.43
(d) Indifferently	1	0	41	0
(e) Nothing at all	0	0	41	0

Fig. 1.9: Graphical representation of the response of students

Analysis:

About 48.78 % of students have been found to understand the topic on Apiculture thoroughly and the same percentage of students was found to have understood the subject satisfactorily. Only one student have found to understand the topic poorly or may be did not understand at all.

Action taken:
1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

10.UNIT: 5 Were you able to understand Integrated Pest management and its applications ?

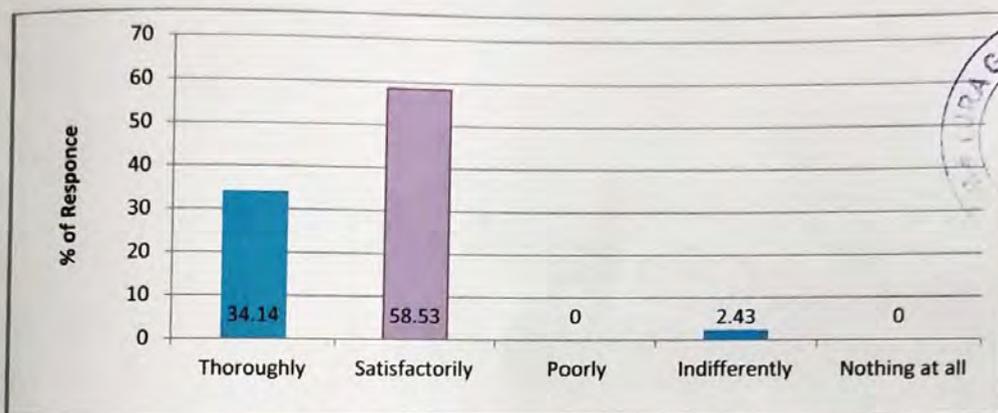| Variable	Grade	No. of Response	Total No. of Response	%
(a) Thoroughly	4	14	41	34.14
(b) Satisfactorily	3	24	41	58.53
(c) Poorly	2	2	41	4..87
(d) Indifferently	1	1	41	2.43
(e) Nothing at all	0	0	41	0

Fig. 1.10: Graphical representation of the response of students

Analysis:

It has been found that 34.14 % of students have understood the topic of Integrated Pest Management and its applications thoroughly. 58.53 % of students were found to have understood the subject satisfactorily. Two of the students (4.87 %) have responded as poorly understood; may be because they did not attend the previous classes or may be slow learner. Only one student (2.43 %) has responded as indifferently; which may be because did not attend the class at all.

Action taken:
1. Revised the topic and remedial classes are taken.
2. Students' attendance were strictly maintained
3. Committed to give effective mentoring to develop their strength and personal attributes.
4. Study materials were provided and advice the use of recommended text books and to read as much as possible.

Summary Table:

Variables	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total No.	%
					No. of Response							
4	18	38	15	14	12	11	10	15	20	14	167	40.73
3	21	1	26	26	25	24	16	16	20	24	199	48.53
2	1	0	0	0	3	4	15	10	1	2	36	8.78
1	0	0	0	0	1	0	0	0	0	1	2	0.48
0	1	0	0	0	0	1	0	0	0	0	2	0.48
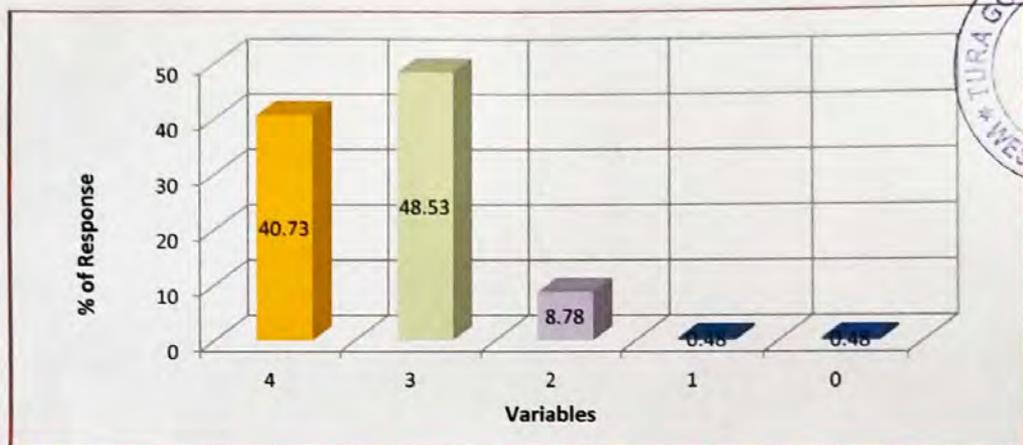
Findings:

1.   40.73 % of students were found to have thorough with the subjects taught and have found to be aware of syllabus prescribed by the NEHU. They were also found to be aware of the teaching methodology being used in the class room. 48.53 % of students were found to have satisfied with the teachings and understood the subject satisfactorily. About 8.78 % of students were found to have understood the subject poorly, only 0.48 % of students have responded as indifferently and 0.48 % of students have responded as nothing at all or don't know. Therefore, it can be concluded that majority of the students have understood the subject taught up to certain extend and satisfied with the teachings, whereas about 10 % of students have problems with their understanding or they fail to attend the class regularly or not fully attended the classes.

2.   Students need more guidance, mentoring, discussions etc. in the class.

3.   ICT is being used in all the classes for effective teaching.

4.   More of advice needs to be given to give more emphasis on development of reading culture.

Principal
Tura Govt. College, Tura.

HOD
Dept. of Zoology
Tura Govt. College, Tura