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T.K.M College of Arts & Science

Kollam – 691005, Kerala

Ref

Date

DEPARTMENT OF ZOOLOGY

CERTIFICATE COURSE IN ORNAMENTAL FISH CULTURE

FOR THE ACADEMIC YEAR 2023-24

**COURSE COORDINATOR
DR. ROHINI KRISHNA M V
ASSISTANT PROFESSOR**

CC3-ORNAMENTAL FISH CULTURE

CERTIFICATE COURSE

offered by

DEPARTMENT OF ZOOLOGY

T.K.M. College of Arts and Science, Kollam-05

(Accredited by NAAC at 'A++' level)

Duration: 30 hours



*For Third year B.Sc. Zoology
students*

Aim: To equip the Third year BSc. Zoology students with knowledge of ornamental fish culture.

Brief description:

The course features hands-on training activities like aquarium setting, fish larvae rearing, and live feed culture. Students will be taught behaviour and biology of the fish during aquarium maintenance as well as the breeding of different varieties of fish. Students will be made aware of how to make ornamental fish culture as a means of income generation.

Course coordinator: Rohini Krishna M. V

Course instructors: Dr. Jasin Rahman V. K., Rohini Krishna M. V and Dr. Mumthas Y.

CC3 21-24

SL NO	Roll No.	Admission Number	Candidate Code	Name of the Student	Sign
1	2503	57903	25021142001	Abhinanda. P M	<i>Abhinanda</i>
2	2504	58221	25021142002	Amrutha Krishnan	<i>Amrutha</i>
3	2505	58091	25021142003	Anagha. B S	<i>Anagha</i>
4	2506	57813	25021142004	Anze. A	<i>Anze</i>
5	2507	57774	25021142005	Archa. B. P	<i>Archa</i>
6	2508	57945	25021142007	Fathima. S	<i>Fathima</i>
7	2509	57780	25021142008	Irfana. I	<i>Irfana</i>
8	2510	57777	25021142009	Neethu Philip	<i>Neethu</i>
9	2511	57773	25021142010	Noora Nizam	<i>Noora</i>
10	2512	57840	25021142011	Parvathy. M S	<i>Parvathy</i>
11	2513	58120	25021142012	Remya Krishnan. R	<i>Remya</i>
12	2514	58134	25021142013	Sara Zahid	<i>Sara</i>
13	2515	58158	25021142014	Seenu. S	<i>Seenu</i>
14	2516	57801	25021142016	Sona S Kumar	<i>Sona</i>
15	2517	58344	25021142017	Vishnupriya. A	<i>Vishnupriya</i>
16	2518	58226	25021142020	Abhishek. P	<i>Abhishek</i>
17	2519	58171	25021142022	Akhil. C	<i>Akhil</i>
18	2520	57779	25021142028	Arjun Krishna. M	<i>Arjun</i>
19	2521	58349	25021142031	Shefeek. S	<i>Shefeek</i>
20	2522	57775	25021142018	Abhinandhini. J	<i>Abhinandhini</i>
21	2523	58145	25021142019	Abhirami Jayakrishnan	<i>Abhirami</i>
22	2525	58107	25021142021	Aiswarya Ajikumar	<i>Aiswarya</i>
23	2526	57837	25021142023	Akhila. S	<i>Akhila</i>
24	2527	58060	25021142024	Amina. A	<i>Amina A</i>
25	2528	58348	25021142026	Amina. H	<i>Amina H</i>
26	2529	57944	25021142025	Amina. J	<i>Amina J</i>
27	2530	57781	25021142027	Ansiya. S	<i>Ansiya</i>
28	2531	57970	25021142029	Fathima. N.K	<i>Fathima</i>
29	2532	57776	25021142030	Resmi. S J	<i>Resmi</i>

30	2533	58068	25021142032	Subina. N	<i>Subina</i>
31	2534	57772	25021142033	Subitha. S	<i>Subitha</i>
32	2535	58062	25021142034	Thasleema. S	<i>Thasleema</i>
33	2536	58321	25021142035	Athila Jasmin	<i>Athila</i>
34	2537	58064	25021142036	Nahidha Noushad	<i>Nahidha Noushad</i>

DEPARTMENT OF ZOOLOGY
CERTIFICATE COURSE ON ORNAMENTAL FISH CULTURE ZO 23 03

SYLLABUS

TOTAL- 30 HOURS

UNIT 1. INTRODUCTION TO ORNAMENTAL FISH CULTURE **12 HOURS**

1.1 Species of ornamental fishes, their taxonomy and biology. **7 hours**

Freshwater species - Live bearers and egg layers.

Marine ornamental species, Habitat and collection from nature.

Maturation, Breeding habits, Spawning, Parental care, Fertilization and development of eggs

Types of eggs-Pelagic and Demersal.

Hatching, larval rearing

Other marine ornamental organisms - anemones, lobsters, shrimps, octopus, starfish etc.

1.2 Collection and Transport **5 hours**

Methods of collection. Types of nets-Cast net, drift net, drag net.

Transportation of live fish.

UNIT 2. CONSTRUCTION AND MAINTENANCE OF AQUARIUM **15 HOURS**

2.1 Construction of home/public aquarium **7 hours**

Materials used - Wooden and metal frames, Frameless tanks. Sealants and gums. Aerators and filters. Handnets and other equipments. Water quality requirements- Temperature, pH, Salinity etc. Gravel/pebbles, plants and other materials. Ornamental objects and fishes. Control of snail and algal growth. Cleaning the aquarium –Siphoning, Water exchange.

2.2 Nutritional requirements of aquarium fishes. **5 hours**

Different kinds of feeds, Live feed culture (Daphina, Moina, Marine algae, Rotifers, Copepods, Artemia). Enrichment of live feed, Use of pigments for colour enhancement, Preparation of dry feeds.

2.3 Common diseases of aquarium fishes, diagnosis and treatment.

3 hours

UNIT 3. ECONOMICS OF ORNAMENTAL FISH CULTURE

3 HOURS

Aquarium keeping as a hobby, Fresh water and marine ornamental fish trade, Prospects of fresh water and marine ornamental fish –importing, exporting and income generation.

REFERENCES

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- Kurup, M.B. 2008. *Ornamental Fish Farming, Breeding and Trade*. Dept. Fish., Govt. Kerala, 280 pp.
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- Mills, D. 1987. *The Practical Encyclopedia of the Marine Aquarium*. Salamander Books Limited, London.

- Petrovicky, I. 1988. Aquarium Fish of the World. Hamlyn Publ. Group Ltd., London, 499 pp.

READING MATERIALS

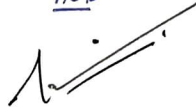
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- Riddlei, P. 1947. The Aquarium. Innes Publ. Co., Phil., 365 pp.
- Sanford G and R. Crow 1991. *The Manual of Tank Busters*. Salamander Books
- Santhanam, R., N. Sukumaran & P. Natarajan 1984. A Manual of Freshwater Aquaculture. Oxford & IBH Publ. Co. Pvt. Ltd., New Delhi, 193 pp.
- Talwar, P.K. & A.G. Jhingran 1991. Inland Fishes of India and Adjacent Countries, Vols. I & II. Oxford & IBH Publ. Co., Pvt. Ltd., New Delhi, 1158 pp.
- Thabrow De WV. 1981. *Popular Aquarium Plants*. Thornbill Press.
- Wilkie, D. 1971. Aquarium Fish. Pelham Books Ltd., London, 214 pp

Coordinator



ROHINI KRISHNA. M.V
Asst. Professor
Dept. of Zoology
TKM College of Arts & Science
Kollam, Kerala - 691 005.

HOD



Dr. JASIN RAHMAN. V.K
Asst. Professor
Dept. of Zoology
TKM College of Arts & Science
Kollam, Kerala - 691 005.

Principal


Dr. Chithra Gopinath
Assistant Professor
Principal in-Charge
Drawing & Disbursing Officer
T.K.M. College of Arts & Science
Kollam - 691005, Kerala.



Year: 2023-2024

CC3: Ornamental Fish Culture

- A written examination was conducted after the completion of the course. Grades were awarded on the following basis:
- 80% and above- A Grade
- 70 - 79% - B Grade
- 60 -69% - C Grade
- 50-59% - D Grade
- 40-49% - E Grade
- The total marks were for 50 (40 for the written exam and 5 for attendance and 5 for assignments)
- The written exam consisted of 20 multiple choice questions with each of the questions carrying 2marks.

Department of Zoology

Ornamental Fish Culture

2023-24

The Department of Zoology conducted an additional skill acquisition programme, on Ornamental Fish Culture in the academic year 2023-24. The programme aimed at equipping the fifth semester BSc. (Zoology) students, with knowledge of Marine and Fresh Water ornamental fish culture. Students were provided with hands-on training on various activities which ensured the uninhibited participation of students.

The number of participants in the academic year 2023-24 was 35. The training was imparted to the sixth-semester students.

The highlight of the programme was the thrust given on the enhancement of trial-based activities, the grasp of the students in the Programme was enhanced through hands-on training activities like aquarium setting, fish larvae rearing and live feed culture. The course modules were designed by the faculty members of the Department of Zoology. An additional module on the economic benefits of Ornamental fish culture was added this year. It was enabled through a combination of lectures as well as through visits of students to local aquarium fish shops. Group and pair activities, mostly interactive by nature, were assigned as required.

The students were evaluated, after each activity, based on their performance of the various tasks given. Their knowledge in the subject such as identification of the species of marine and fresh water ornamental fishes were tested. Their capacity to identify various fish diseases were tested through written and practical exams. Based on the feedback of the students the course was very effective and was a method of generating additional income after their graduation.

The course had a duration of 30 hours. A written examination was conducted after the completion of the course. Grades were awarded on the following basis:

80% and above- A Grade

70 - 79% - B Grade

60 -69% - C Grade

50-59% - D Grade

40-49% - E Grade

Classes were engaged by Dr. Rohini Krishna M V of the Department of Zoology. Out of the 35 students who enrolled in the course all students 34 secured A Grade and 1 student rolled out.

Course outcomes:

CO.1. Acquiring knowledge of ornamental fish production and aquarium keeping.

CO.2. Develop entrepreneurship on ornamental fish breeding and rearing.

CO.3. Getting hands-on exposure to students on various aspects of ornamental fish farming.

CO.4. Makes students able to identify commonly used aquarium fishes.

CO.5. Develops students' ability to construct aquariums with innovative designs.

CO.6. Develop an insight into the mechanical equipment used along with the aquarium.

CO.7. Develops student's ability to identify the major disease by merely noticing symptoms.

CO.8. Develop the ability to breed fish in a controlled environment.

CO.9. Develop knowledge in maintaining marine aquariums.

CO 10. Make them self-sufficient to maintain ornamental fish farms.

CC₃ 2021-24⁴⁷

Sl. No.	Roll-No.	ADMISSION NUMBER	Name of the STUDENT	Sign
1	2501	58205	Arun Doban.	DC
2	2502	58072	Giyad. B.	DC
3	2503	57903	Abhinanda. P. M.	
4	2504	58221	Amrutha Kaishann.	
5	2505	58091	Anagha B.S.	
6	2506	57813	Anze. A	Anze
7	2507	57774	Archa B.P	
8	2508	57945	Fathima. S.	Fathima
9	2509	57780	Irfana. I	
10	2510	57777	Neethu Philip	
11	2511	57773	Noora Nizam.	
12	2512	57840	Parvathy M.S	
13	2513	58120	Remya Kaishnan. R.	
14	2514	58134	Sara Zahid	Sara
15	2515	58158	Seenu. S.	Seenu
16	2516	57801	Sona. S. Kumar.	
17	2517	58344	Vishnu Priya. A	
18	2518	58226	Abishkek. P.	
19	2519	58171	Akil. C	
20	2520	57779	Arun Kaishan. M.	
21	2521	58349	Shefeek. S.	
22	2522	57775	Abhinandhini. J	
23	2523	58145	Abhinami Jayakrishnan.	
24	2524	58107	Aiswarya Ajikumard	
25	2525	57837	Akibila. S.	
26	2526	58060	Amina. H.	Amina
27	2527	58348	Amina. H.	Amina
28	2528	57944	Amina. J	
29	2529	57781	Ansiya. S.	ANSIYA
30	2530	57970	Fathima. N.K.	
31	2531	57776	Resmi SJ	
32	2532	58068	Subina. N.	
33	2533	57772	Subitha. S.	

Sl. No	Roll. No	Admission Number	Name of the student.	Sir
34	2535	58062	Thankema . S.	Shab
35	2536	58321	Athika Jasmin.	Shab
36	2537	58064	Nabidha Moushad.	Shab

Sl. No.	Admission No.	NAME	Name of the Institute.....												Section.....												No. of Days Present	FEES Rs.	P.	Da Pat					
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					25	26	27	28	29
2533	58068	Subina N	Sub	Sub	Sub	A	Sub	Sub	Sub	A	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	
2534	57772	Subitha S	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	
2535	58068	Thasleema S.	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	
2536	58381	Abhita Jasmin	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub		
2537	58064	Abhidha Alauchood	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub	Sub		

Number present M	11/22	3/9/1	10/21	10/10	10/21	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
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Sl. No 5462

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... Abhinanda . P M
of 2021 - 2024 batch with Ad. No..... 57903
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of..... Zoology
during the academic year..... 2023 - 24
Grade awarded..... A

Course Co-ordinator

Head of the Department

Principal



Sl. No 5463

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Amrutha krishnan
of 2021-2024 batch with Ad. No 58221
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year 2023-24
Grade awarded A

Course Co-ordinator

Head of the Department

Principal



Sl. No **5464**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Anagha . B.S
of 2021-2024 batch with Ad. No. 58091
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year 2023 - 24
Grade awarded A

Course Co-ordinator

Head of the Department

Principal



Sl. No **5465**

T. K. M. COLLEGE OF ARTS & SCIENCE

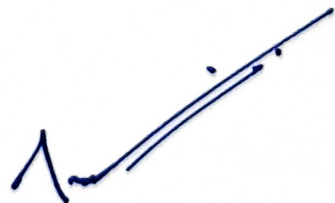
KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Anze . A
of 2021-2024 batch with Ad. No. 57813
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year 2023-2024
Grade awarded A


Course Coordinator


Head of the Department


Principal



Sl. No **5466**

T. K. M. COLLEGE OF ARTS & SCIENCE


KOLLAM - 691005


Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... *Archa . B P*
of..... *2021-2024* batch with Ad. No..... *57774*
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of..... *Zoology*
during the academic year..... *2023-2024*
Grade awarded..... *A*


Course Co-ordinator


Head of the Department


Principal



Sl. No 5467

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Fathima . S
of 2021-2024 batch with Ad. No. 57945
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded A

Course Co-ordinator

Head of the Department

Principal



Sl. No **5468**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... *Irfana: I*.....
of..... *2021-2024*..... batch with Ad. No..... *57780*.....
has successfully completed the certificate course on.....
..... *Ornamental fish Culture*.....
conducted by the Department of..... *Zoology*.....
during the academic year..... *2023-2024*.....
Grade awarded..... *A*.....


Course Co-ordinator


Head of the Department


Principal



Sl. No **5469**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... *Neethu Philip*.....
of..... *2021-2024*..... batch with Ad. No..... *57777*.....
has successfully completed the certificate course on.....
..... *Ornamental fish Culture*.....
conducted by the Department of..... *Zoology*.....
during the academic year..... *2023-2024*.....
Grade awarded..... *A*.....

Course Co-ordinator

Head of the Department

Principal



Sl. No **5470**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Noora Nizam
of 2021-2024 batch with Ad. No. 57773
has successfully completed the certificate course on
Ornamental fish culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No 5471

T. K. M. COLLEGE OF ARTS & SCIENCE


KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Parvathy . M S
of 2021 - 24 batch with Ad. No. 57840
has successfully completed the certificate course on
Ornamental fish culture
conducted by the Department of Zoology
during the academic year 2023 - 24
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5472**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Remya Kaishnad . R
of 2021-2024 batch with Ad. No. 58120
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded. A

Course Co-ordinator

Head of the Department

Principal



Sl. No **5473**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. *Sara Zahid*.....
of *2021-2024*..... batch with Ad. No. *58134*.....
has successfully completed the certificate course on.....
Ornamental Fish Culture.....
conducted by the Department of *Zoology*.....
during the academic year *2023-2024*.....
Grade awarded *A*.....


Course Co-ordinator


Head of the Department


Principal



Sl. No

5474

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... *Seenu S*.....

of *2021-2024*..... batch with Ad. No..... *58158*.....

has successfully completed the certificate course on.....

Ornamental Fish Culture.....

conducted by the Department of..... *Zoology*.....

during the academic year..... *2023-2024*.....

Grade awarded..... *A*.....

Course Coordinator

Head of the Department

Principal



AnyScanner



Sl. No **5475**

T. K. M. COLLEGE OF ARTS & SCIENCE

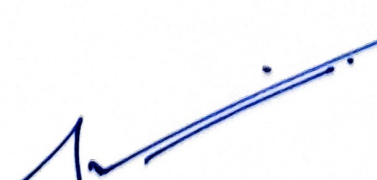
KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Sona S Kumar
of 2021-2024 batch with Ad. No. 57801
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No

5476

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Vishnupaiya · A
of 2021-2024 batch with Ad. No. 58344
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year..... 2023-2024
Grade awarded..... A

Course Co-ordinator

Head of the Department

Principal



Sl. No **5477**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Abhishek. P
of 2021-2024 batch with Ad. No. 58226
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5478**

T. K. M. COLLEGE OF ARTS & SCIENCE
KOLLAM - 691005
Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... Akhil. C
of 2021-2024 batch with Ad. No..... 58171
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of..... Zoology
during the academic year..... 2023-2024
Grade awarded..... A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5479**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Azjud Kaishna. M
of 2021-2024 batch with Ad. No. 57779
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded A

Course Co-ordinator

Head of the Department

Principal



Sl. No 5480

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... Shefeek . S

of..... 2021- 2024 batch with Ad. No..... 58349

has successfully completed the certificate course on.....

Ornamental Fish Culture

conducted by the Department of..... Zoology

during the academic year..... 2023- 2024

Grade awarded..... A

Course Co-ordinator

Head of the Department

Principal



Sl. No **5481**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Abhinandhini . J
of 2021- 2024 batch with Ad. No. 57775
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year. 2023- 2024
Grade awarded..... A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5482**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Abhirami Jayakrishnan
of 2021-2024 batch with Ad. No. 58145
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded..... A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5483**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. *Aiswarya Ajikumar*
of *2021 - 2024* batch with Ad. No. *58107*
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of *Zoology*
during the academic year *2023 - 2024*
Grade awarded *A*


Course Co-ordinator


Head of the Department


Principal



Sl. No **5484**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... Akhila S
of..... 2021-2024..... batch with Ad. No..... 57837
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of..... Zoology
during the academic year..... 2023-2024
Grade awarded..... A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5485**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Amina. A
of 2021-2024 batch with Ad. No. 58060
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5486**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Amina. H
of 2021-2024 batch with Ad. No. 58348
has successfully completed the certificate course on
Ornamental fish Culture
conducted by the Department of Zoology
during the academic year 2023-2024
Grade awarded A


Course Coordinator


Head of the Department


Principal




Sl. No 5487

T. K. M. COLLEGE OF ARTS & SCIENCE
KOLLAM - 691005
Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Amina: J
of 2021-2024 batch with Ad. No. 57944
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No
5488

T. K. M. COLLEGE OF ARTS & SCIENCE
KOLLAM - 691005
Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Ansiya.S
of 2021-2024 batch with Ad. No. 57781
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5489**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. *Fathima N K*
of *2021-2024* batch with Ad. No. *57970*
has successfully completed the certificate course on.....
Ornamental Fish Culture
conducted by the Department of *Zoology*
during the academic year *2023-2024*
Grade awarded *A*


Course Co-ordinator


Head of the Department


Principal



Sl. No **5490**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Resmi . S J
of 2021-2024 batch with Ad. No. 57776
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No

5491

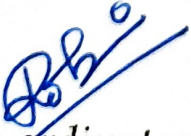
T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms..... Subina. N.....
of 2021-2024..... batch with Ad. No..... 58068.....
has successfully completed the certificate course on.....
Ornamental Fish Culture.....
conducted by the Department of..... Zoology.....
during the academic year..... 2023 - 2024.....
Grade awarded..... A.....


Course Co-ordinator


Head of the Department


Principal



Sl. No **5492**

T. K. M. COLLEGE OF ARTS & SCIENCE
KOLLAM - 691005
Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Subitha . S
of 2021-2024 batch with Ad. No. 57772
has successfully completed the certificate course on.....
Ornamental fish culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5493**


T. K. M. COLLEGE OF ARTS & SCIENCE
KOLLAM - 691005
Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Thasleema. S
of 2021-2024 batch with Ad. No. 58062
has successfully completed the certificate course on
Ornamental fish Culture
conducted by the Department of Zoology
during the academic year. 2023-2024
Grade awarded A


Course Co-ordinator


Head of the Department


Principal



Sl. No **5494**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

CERTIFICATE

This is to certify that Mr./Ms. Athila Jasmin

of 2021-2024 batch with Ad. No. 58321

has successfully completed the certificate course on.....

Ornamental Fish Culture

conducted by the Department of Zoology

during the academic year 2023-2024

Grade awarded A

Course Co-ordinator

Head of the Department

Principal



Sl. No **5495**

T. K. M. COLLEGE OF ARTS & SCIENCE

KOLLAM - 691005

Affiliated to the University of Kerala

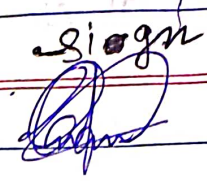

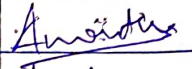
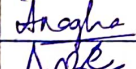


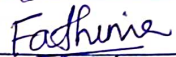


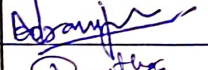





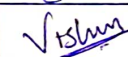
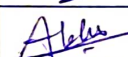
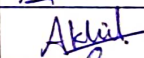

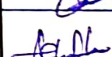



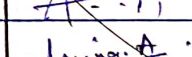

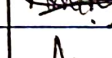




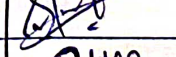
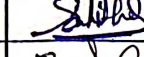
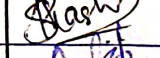
CERTIFICATE

This is to certify that Mr./Ms. *Nahidha Noushad*
of *2021-2024* batch with Ad. No. *58064*
has successfully completed the certificate course on
Ornamental Fish Culture
conducted by the Department of *Zoology*
during the academic year *2023-2024*
Grade awarded *A*


Course Co-ordinator


Head of the Department


Principal

Sl. No.	Admission Number	Name of the student	Grade.	Sign
1	57749	Ajju Kalsham. N.D.	A	
2	58072	Siyad.	Discontinued	
3	57903	Abhinandha. P.M	A	
4	58221	Amreetha Kalsham	A	
5	58091	Anagha. BS.	A	
6	57813	Ange. A	A	
7	57774	Archa B.P.	A	
8	57945	Fathima. S.	A	
9	57780	Tadana. J	A	
10	57777	Neethu Philip.	A	
11	57773	Noora Nizam.	A	
12	57840	Parvathy. m.s.	A	
13	58120	Reemya Krishan. R.	A	
14	58134	Sarra Zahid	A	
15	58158	Seena. S.	A	
16	57801	Sona. S. Kumar	A	
17	58344	Vishnu Priya. A.	A	
18	58226	Abhishek. P.	A	
19	58171	Akhil. C	A	
20	58349	Sheela. S.	A	
21	57775	Abhinandini. J	A	
22	58145	Abinami Jaya Krishan.	A	
23	58107	Hiswarya Ajikumar.	A	
24	57837	Akhila S.	A	
25	58060	Amina. A.	A	
26	58348	Amina. H.	A	
27	57944	Amina. J	A	
28	57781	Ansiya. S.	A	
29	57940	Fathima. Nils.	A	
30	57776	Resmi S. J	A	
31	58068	Subhina. N.	A	
32	57772	Subitha.	A	
33	58062	Hasleema. S.	A	
34	58321	Athila Jasmin.	A	

Sl. No.	Ad. No	Namee.	Grade	Stag
35	58064	Alahida Moushad.	A	Nash.
36		Dran mohao.	Discontinued	