

CERTIFICATE COURSE IN ORNAMENTAL FISH CULTURE

2020-2021

Department of Zoology

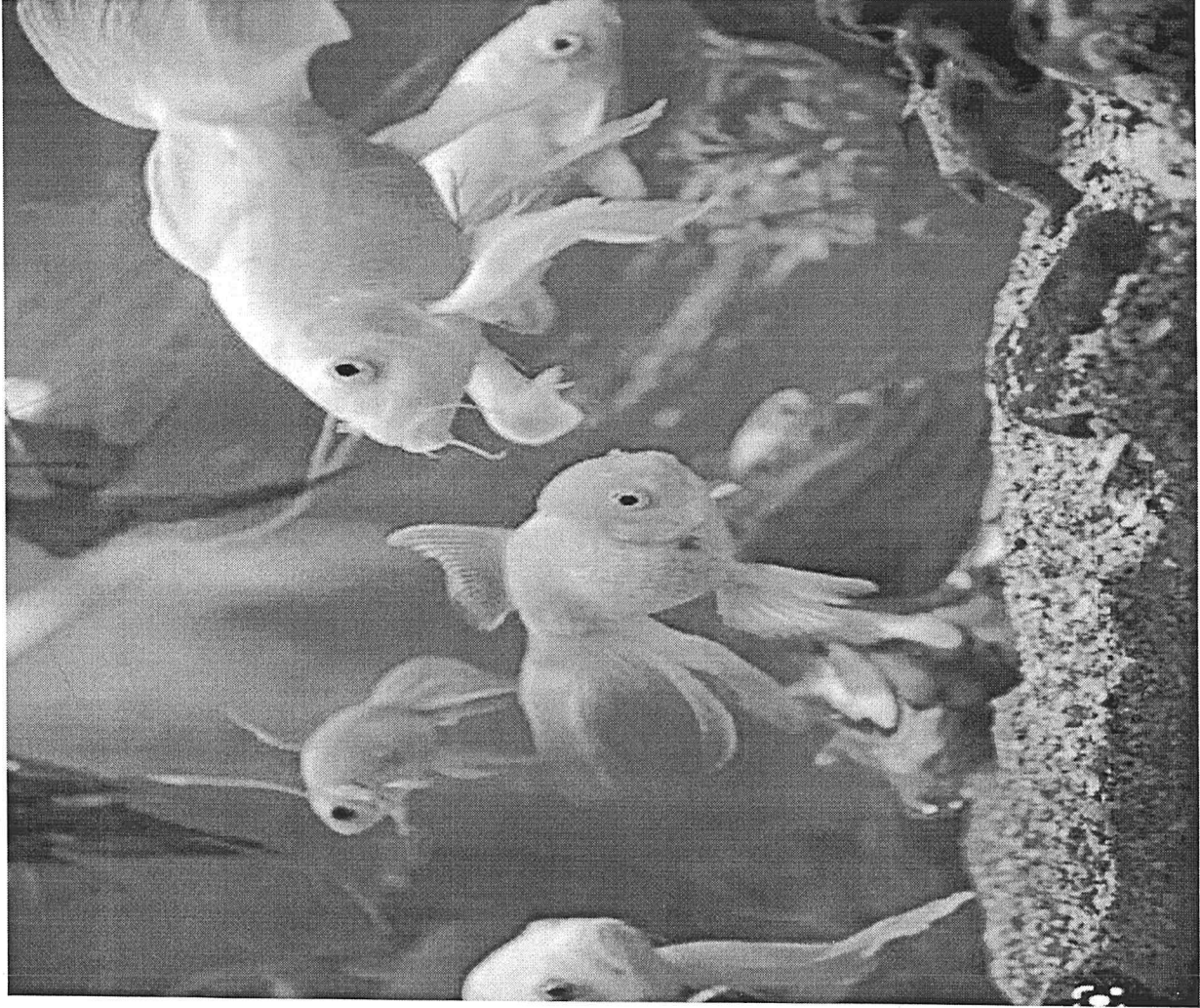
Sree Narayana College, Kollam

DURATION : 30 HOURS,

SEATS AVAILABLE: 30

COURSE CO-ORDINATOR: DR SHEEJA V U

CONTACT: 9895953110



Department of Zoology
CERTIFICATE COURSE IN
ORNAMENTAL FISH CULTURE

OBJECTIVES OF THE COURSE

- To inculcate importance of ornamental fish farming in relation with entrepreneurship development.
- To give students knowledge about various techniques of ornamental fish breeding, rearing and its marketing to make them self sustainable after graduation.
- To teach techniques of construction of glass aquarium and its maintenance.
- To teach students about fish food production and health related problems with ornamental fish.

RELEVANCE AND OUTCOME OF THE COURSE

- Maintain ecological balance in nature by way of domestication of honey bee.
- Develop entrepreneurial skills in beekeeping.
- Build human resource in the beekeeping sector.
- Generate employment opportunities in Apiculture to the unemployed youth and women for rural development.
- Undertake research and development [R&D] in Apiculture.
- Encourage the new generation to maintain their security and stability.
- Help to conserve the natural resources

OUTLINE OF SYLLABUS OF THE COURSE

(TOTAL -30 hours, 15-hour theory and 15-hour practical)

THEORY-(15 hours)

UNIT- I Introduction to Ornamental fishes

- Introduction to aquarium and aquarium accessories.

(2 Hr)



- Management of ornamental aquatic plants and its trading

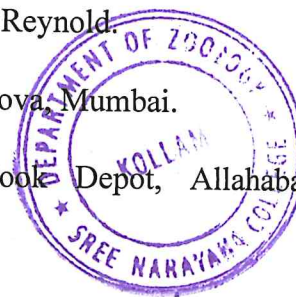
PRACTICAL

(15 hours)

- 1) Identification of common live bearer ornamental fishes: - Guppy, Molly, Platy, Sword Tail
- 2) Identification of common Egg layer ornamental fishes: - Angel, Neon tetra
- 3) Identification of common Egg layer ornamental fishes: Discus and Siamese fighter
- 4) Identification of common Egg layer ornamental fishes: Gold fish, Koi Carp
- 5) Identification of common Egg layer ornamental fishes: Danio- Zebra, and Flower Horn.
- 6) Field Visits-Field visits are to be organised to facilitate students to have firsthand experience and exposure to technology / production / functioning of an organisation / unit or witness a relevant activity. Each student must make at least two such visits to the units/markets/public aquarium out of 2 to 3 such visits organised by the college. i) Visit to one of the units with one or multiple activities such as. Ornamentalfishfarm/Nursery/Hatchery.

REFERENCES:

- Fish & Fisheries in India – By Jhingran V.G. – Hindustan Pub. Corporation – New Delhi.
- Hand Book of Fresh Water Fishes of India By Beaven C.R. – Narendra Pub. House.
- Fish Biology By C.B.C. Srivastava – Narendra Pub. House.
- Ecological Methods for Field & Laboratory Investigations By P. Michael.
- Fish & Fisheries By Chandy – National Book Trust.
- Fishery Science By Samtharam R. – Daya Pub. House – 1990.
- Aquaculture, Principles and Practices By Pillay T.V.R. – Fishing News Books (1988).
- Fisheries Biology, Assessment and Management By Michael King – Fishing News Publishers (1995).
- Handbook of Fish Biology and Fisheries Edited By J.B. Hart & John Reynold.
- Course Manual in Fishing Technology By Latha Shenoy, CIFE, Versova, Mumbai.
- An Introduction to Fishes By Khanna S.S. – Central Book Depot, Allahabad (1993).



BOARD OF STUDIES MEMBERS (2020-2021)

**DEPARTMENT OF ZOOLOGY
SREE NARAYANA COLLEGE, KOLLAM**

CERTIFICATE COURSE IN ORNAMENTAL FISH CULTURE

Course Co-ordinator: Dr Sheeja V U, Assistant Professor, Department of Zoology, S. N. College, Kollam

BOARD OF STUDIES FOR CERTIFICATE COURSE IN ORNAMENTAL FISH CULTURE

Members:

Dr B T Sulekha, Assistant Professor, Head of the Department of Zoology, S. N. College, Kollam

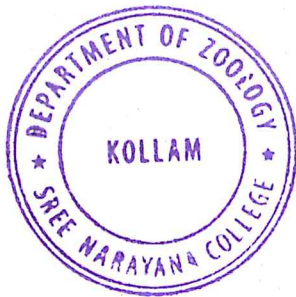
Dr B Hari, Assistant Professor, Department of Zoology, S. N. College, Kollam


Dr S Sheeba, Assistant Professor, Department of Zoology, S. N. College, Kollam

Dr S Jisha, Assistant Professor, Department of Zoology, S. N. College, Kollam

Dr Divya T Dharan, Assistant Professor, Department of Zoology, S. N. College, Kollam

Dr Divya P S, Assistant Professor, Department of Zoology, S. N. College, Kollam




Dr. SULEKHA B.T
Associate Professor & Head
P.G.& Research Dept.of Zoology
S.N.College, Kollam-691001


Principal
Sree Narayana College
Kollam



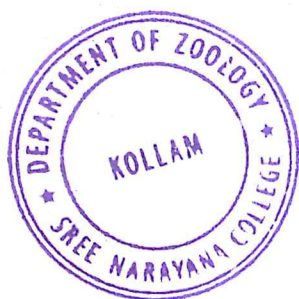
Sree Narayana College Kollam

Department of Zoology

Certificate Course in Ornamental fish culture 2020-2021

Time table

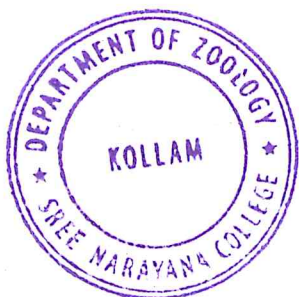
Dr Sheeja V U	Day	Time	Theory/lab
	Monday	3.15-4.45	Theory
	Tuesday	3.15-4.45	Lab
	Wednesday	3.15-4.45	Theory
	Thursday	3.15-4.45	lab
	Friday	3.15-4.45	Theory





Dr. SULEKHA B.T
Associate Professor & Head
P.G. & Research Dept. of Zoology
S.N. College, Kollam-691001

List of teachers who are handling classes for the certificate course

1. Dr B T Sulekha (HOD Department of Zoology, Sree Narayana College, Kollam)
2. Dr Sheeja V U (Assistant Professor, Department of Zoology, Sree Narayana College, Kollam)




Dr. SULEKHA B.T
Associate Professor & Head
P.G.& Research Dept.of Zoology
S.N.College, Kollam-691001

NOTICE

All board of studies members of certificate course in Ornamental fish culture are requested to attend a meeting on 16/7/2021 at 3.30 pm.

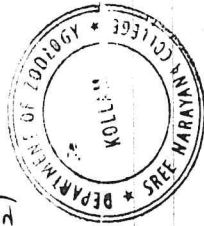
Agenda: Fixation of date for the next board of studies and syllabus

Co-Ordinator Shyam

Certificate course in Ornamental fish culture

Date: 16/7/2021

Kollam



Minutes of the Certificate Course in Ornamental fish Culture

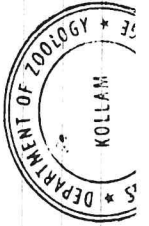
Meeting of the Department Committee members for the Certificate Course in Ornamental fish culture of the Department of Zoology, SN College, Kollam was held on 16/7/2021 in the department staff room at 3.30 pm.

Members attended

- 1. Dr B J Sulekha (HOD Dept of Zoology) *[Signature]*
- 2. Dr B Hani (Assoc. Professor, Dept of Zoology) *[Signature]*
- 3. Dr S Sheeba (Assoc. Prof. Dept of Zoology) *[Signature]*
- 4. Dr S Jisha (Assoc. Prof. Dept of Zoology) *[Signature]*
- 5. Dr Divya J Dhawan (Assis. Prof., Dept of Zoology) *[Signature]*
- 6. Dr Sheela VU (Assis. Prof. Dept. of Zoology) *[Signature]*
- 7. Dr Divya PS (Assis. Prof. Dept of Zoology) *[Signature]*

Agenda: Fixation of date for the next board of studies & syllabus approval.

Decisions taken: Decided the members of board of studies syllabus was approved.



[Signature]
Associate Professor & Head

NOTICE

All board of studies members of certificate course in Ornamental fish culture are requested to attend a meeting on 17/8/2021 at 3:45.....pm.

Agenda: Invite applications and commencement of the certificate course

Co-Ordinator Shreya

Certificate course in Ornamental fish culture

Date: 17/8/2021

Kollam



Minutes of the Certificate Course in Ornamental Fish Culture

Meeting of the Department Committee of the certificate course in Ornamental fish culture of the Dept. of Zoology, SNL college Kollam, was held on 17/8/2021 in the department staff room at 3:45 pm

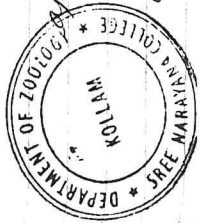
Members:

1. Dr B T Sulekha (HOD, Dept of Zoology) Shreya
2. Dr B Hari (Assoc. Prof. Dept. of Zoology) Shreya
3. Dr S Sheeba (Assoc. Prof. Dept of Zoology) Shreya
4. Dr S Jisha (Assoc. Prof. Dept of Zoology) Shreya
5. Dr Divya T Dhawan (Assoc. Prof. Dept of Zoology) Shreya
6. Dr Sheela VU (Assoc. Prof. Dept of Zoology) Shreya
7. Dr Divya PS (Assoc. Prof. Dept of Zoology) Shreya

Agenda: Invite applications and commencement of the certificate course

Decisions taken

1. Announcement for inviting applications
2. Course commencement date was fixed.



Shreya
Dr. SULEKHA B.T.

NOTICE

All board of studies members of certificate course in Ornamental fish culture are requested to attend a meeting on 22/11/2021 at 3:45.....pm.

Agenda: *Conduct of examination and issue of certificate*

Co-Ordinator *Sheela*

Certificate course in Ornamental fish culture

Date: 22/11/2021

Kollam



Minutes of the certificate course in Ornamental fish Culture

Meeting of the department committee of the certificate course in Ornamental fish culture of the department of Zoology S.N college, Kollam was held on 22/11/2021 in the department staff room at 3:45 pm.

Members

- 1 *Dr B T Sulekha*
- 2 *HOD, Department of Zoology* *Sheela*
- 3 *Dr B Haei*
- 4 *Assoc. Prof. Dept of Zoology* *Dr. J. J. J.*
- 5 *Dr S Sheela*
- 6 *Assoc. Prof. Dept of Zoology* *U.S.*
- 7 *Dr S. Jisha* *S.S.*
- 8 *Assoc. Prof. Dept of Zoology* *Dr.*
- 9 *Dr Divya J Dharan* *Sheela*
- 10 *Assoc. Prof. Dept of Zoology* *Dr.*
- 11 *Dr D Sheela VU* *Dr.*
- 12 *Assoc. Prof. Dept of Zoology* *Dr.*
- 13 *Dr Divya P S* *Dr.*
- 14 *Assoc. Prof. Dept of Zoology* *Dr.*

Agenda: Conduct of examination and issue of certificate

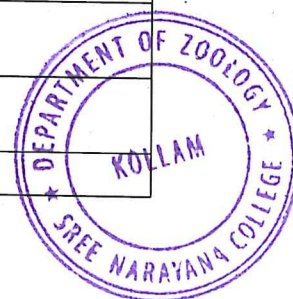
Decision taken: Decided to conduct examinations (Online) on 30/11/2021. Printed certificates will be issued.



Dr. Sulekha B.T.
Associate Professor & Head
P.G. & Research Dept. of Zoology
S.N College Kollam-691001

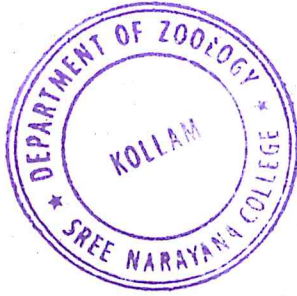
Sree Narayana College Kollam
Certificate Course in Ornamental fish culture 2020-2021
Student List


Sl No	Candidate Code	Name of the student	Name of the Department
1	25018132028	AKHILESH P.S	Zoology
2	25018132029	AKSHATHA.P	Zoology
3	25018132030	ALBI LEKSHMAN	Zoology
4	25018132031	ALFIYA. J	Zoology
5	25018132032	ANILA A	Zoology
6	25018132033	ANJITHA . V	Zoology
7	25018132034	ANJU. A	Zoology
8	25018132035	ANUJITH. R. A	Zoology
9	25018132036	AROMAL RAJEEV	Zoology
10	25018132037	ARSHA ARJUN	Zoology
11	25018132038	ARUNDHATHY.C.S	Zoology
12	25018132039	ATHIRA KRISHNAN.G.R	Zoology
13	25018132040	ATHIRA.S	Zoology
14	25018132041	B PARVATHI	Zoology
15	25018132042	DEVIKA DEVAN	Zoology
16	25018132043	JOYCE MARY J	Zoology
17	25018132044	KAVYA PRAKASH	Zoology
18	25018132045	LEKSHMI .S	Zoology
19	25018132046	LEKSHMI ASHOK	Zoology
20	25018132047	MEGHA.M.S	Zoology
21			Zoology



Sree Narayana College Kollam
Certificate Course in Ornamental fish culture 2020-2021
Student List

	25018132048	PADMA ASOK	
22	25018132049	RAKHI KRISHNA R	Zoology
23	25018132050	RINU SAM	Zoology
24	25018132051	SAYANORA.B.S	Zoology
25	25018132052	SREELEKSHMI B	Zoology




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SREE NARAYANA COLLEGE, KOLLAM

Department of Zoology

Certificate Course in Ornamental fish culture

Assessment test 2020-2021

Maximum Marks: 25

Duration 30 minutes

Answer all questions. Each question carries 5 marks

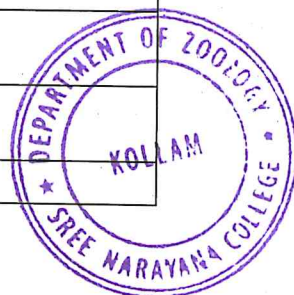
(5X5=25)

1. Briefly explain breeding of ornamental fish with reference to live bearer species.
2. Write notes on health management in Ornamental Fish Farming
3. Explain aquarium plant propagation.
4. Write notes on the importance of aerators, filters and lighting.
5. Briefly explain rearing of live bearers

Sree Narayana College Kollam
Certificate Course in Ornamental fish culture 2020-2021

Mark List

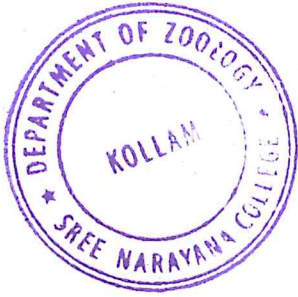
Sl No	Candidate Code	Name of the student	Marks obtained/25
1	25018132028	AKHILESH P.S	19
2	25018132029	AKSHATHA.P	22
3	25018132030	ALBI LEKSHMAN	23
4	25018132031	ALFIYA. J	24
5	25018132032	ANILA A	19
6	25018132033	ANJITHA . V	18
7	25018132034	ANJU. A	25
8	25018132035	ANUJITH. R. A	25
9	25018132036	AROMAL RAJEEV	18
10	25018132037	ARSHA ARJUN	20
11	25018132038	ARUNDHATHY.C.S	17
12	25018132039	ATHIRA KRISHNAN.G.R	22
13	25018132040	ATHIRA.S	13
14	25018132041	B PARVATHI	15
15	25018132042	DEVIKA DEVAN	25
16	25018132043	JOYCE MARY J	25
17	25018132044	KAVYA PRAKASH	20
18	25018132045	LEKSHMI .S	17
19	25018132046	LEKSHMI ASHOK	23
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21			17




Sree Narayana College Kollam
Certificate Course in Ornamental fish culture 2020-2021

Mark List

	25018132048	PADMA ASOK	
22	25018132049	RAKHI KRISHNA R	19
23	25018132050	RINU SAM	18
24	25018132051	SAYANORA.B. S	24
25	25018132052	SREELEKSHMI B	24

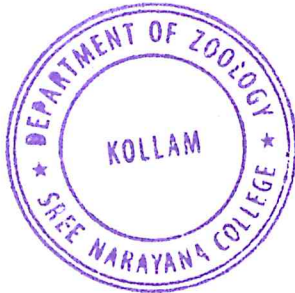




Dr. SULEKHA B.T
Associate Professor & Head
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S.N.College, Kollam-691001

Department of Zoology

Report of Ornamental fish culture (2020- 2021)

- Application was invited for the course on 17/7/2021
- 25 Candidates applied for the course
- 25 Of them were selected
- Classes were conducted on an online offline mode. Classes commenced on 3/8/2021
- Exams were conducted on online mode on 29/11/2021
- Results were published on 30/11/2021
- Certificates were distributed on 21/12/2021




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Principal
Sree Narayana College
Kollam





Sree Narayana College, Kollam

Affiliated to the University of Kerala

(Accredited by NAAC Grade 'A')

(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Ms./Mrs. *Kavya Prakash*.....

Reg. No. *250181320AH*..... Department of..... *has successfully*

completed certificate course in..... *Ornamental Fish Culture*.....

..... during *August*..... 2020 to *November* 2021.

Sheela

COURSE CO-ORDINATOR



[Signature]

PRINCIPAL



Sree Narayana College, Kollam

Affiliated to the University of Kerala

(Accredited by NAAC Grade 'A')

(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Ms./Mrs. *Devika Devan*.....

Reg. No. *25018132042*..... Department of..... *has successfully*

completed certificate course in *Ornamental Fish Culture*.....

..... during *1 August 2020 to 1 November 2021*.....

Sheela
COURSE CO-ORDINATOR



[Signature]
PRINCIPAL



Sree Narayana College, Kollam

Affiliated to the University of Kerala

(Accredited by NAAC Grade 'A')

(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Mrs. *Asommal Rajeev* has successfully
Reg. No. *25018132036* Department of *Zoology*
completed certificate course in *Ornamental Fish Culture*

..... during *August* 2020 to *November* 2021.

Sheef

COURSE CO-ORDINATOR



Red

PRINCIPAL



Sree Narayana College, Kollam

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(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Ms./Mrs. *Athira S*
Reg. No. *250/8132040* Department of *Zoology* has successfully
completed certificate course in *Ornamental Fish Culture*
.....
..... during *August* 2020 to *November* 2021.

Sheela

COURSE CO-ORDINATOR



[Signature]

PRINCIPAL



Sree Narayana College, Kollam

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(Accredited by NAAC Grade 'A')

(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Ms./Mrs. *Althia S*
Reg. No. *250181320.H.O* Department of *Zoology* has successfully
completed certificate course in *Ornamental Fish Culture*
.....
..... during *August* 2020 to *November* 2021.

Sheela

COURSE CO-ORDINATOR



[Signature]

PRINCIPAL



Sree Narayana College, Kollam

Affiliated to the University of Kerala

(Accredited by NAAC Grade 'A')

(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Ms./Mrs. *B. Parvathi*.....

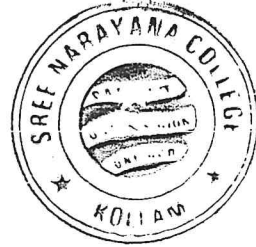
Reg. No. *250181320A1*..... Department of *Zoology*..... has successfully

completed certificate course in *Ornamental Fish Culture*.....

..... during *August*..... 2020 to *November*..... 2021.

Sheela

COURSE CO-ORDINATOR



PRINCIPAL



Sree Narayana College, Kollam

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CERTIFICATE

This is to certify that Mr./Ms./Mrs. *Deepty Krishna*.....

Reg. No. *25.0171320.H.O.*..... Department of *Zoology*..... has successfully
completed certificate course in *Ornamental Fish Culture*.....

..... during *January*..... 2019 to *March*..... 2020.

COURSE CO-ORDINATOR



PRINCIPAL



Sree Narayana College, Kollam

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(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Ms./Mrs. Araathi R.....
Reg. No. 25017132036..... Department of Zoology..... has successfully
completed certificate course in Ornamental Fish Culture.....
.....
..... during January 2019 to March 2020.

COURSE CO-ORDINATOR




PRINCIPAL