Adikavi Nannaya University:: Rajamahendravaram

1.3 Curriculum Enrichment

1.3.2 List of value added courses

Year -1 (2020-21)	Year of offering
Certificate Course in Aqua culture, Feed Preparation, Analysis and management	2020-21
Post Graduate Diploma in Mud logging	2020-21
Certificate Course on Counselling Skills	2020-21
Certificate Course in Mush Room Cultivation and Establishment of Training Unit	2020-21
Certificate Course in Communication Skills	2020-21
Year 2 (2019-20)	
Certificate course on Counselling Skills	2019-20
Certificate course in Communication Skills	2019-20
Year 3 (2018-19)	
Certificate course on Counselling Skills	2018-19
Certificate course in Communication Skills	2018-19
Year 4 (2017-18)	
Certificate course on Counselling Skills	2017-18
Certificate course in Communication Skills	2017-18
Year 5 (2016-17)	
Certificate course on Counselling Skills	2016-17
Certificate course in Communication Skills	2016-17

Registrar Adikavi Nannaya University RAJAMAHENDRAVARAM-533 296. E.G.Dt., A.P., India



Adikavi Nannaya University Rajamahendravarm



CERTIFICATE COURSE ON COURSE ON COUNSELLING SKILLS Department of Psychology University College of Arts & Commerce

About the Course

This certificate in Counselling Skills Programme is designed to give learners the underpinning knowledge, skills, and competencies to use counselling skills ethically and safely in a variety of contexts and roles. The Certificate Course will offer an appropriate starting point for students, as well as professionals working in other helping professions to apply these skills at their workplaces. UGC-NSQF PROGRAM

Duration: 6 Months

Classes: Two Days per Week

> Eligibility: Any Graduation

Application Fee: Rs.500/-Course Fee: Rs.5000/-

Last Date 20 Dec 2020 <u>Counselling Dates</u> 21-25 Dec 2020 Reporting: 26 Dec 2020

FOR ADMISSION

www.aknu.edu.in By Paying a DD for Rs.500 in the name of Registrar, ANUR or Online Payment in the name of ANUCET, A/c.No.062611011000715 Please fill the link below and furnish the details https://forms.gle/2PTfSB3Us aAcT8az5

Adikavi Nannaya University



Invites applications for admissions to **PG Diploma in Mud Logging (I Year)** (UGC Approved, NSQF Program)

Department of Geology

UNIVERSITY COLLEGE OF SCIENCE AND TECHNOLOGY ADIKAVI NANNAYA UNIVERSITY RAJAMAHENDRAVARAM, A.P., INDIA www.aknu.edu.in



Introduction

The program of PG Diploma in Mud logging is the first of its kind among Indian Government Universities introducing as a job-specific program suitable for hydrocarbon industry. The East Coast of India especially Krishna-Godavari Delta has become one of major hub in India for exploration and development of oil and gas resources. Most of companies are looking for trained/skilled man power for recruitment in oil industry. To meet the skilled people requirement of Hydrocarbon industry of National and International repute, this program has been proposed by the Adikavi Nannaya University.

At this juncture, as the PG program of Geology with Petroleum Exploration has been offering by Department of Geology of Adikavi Nannaya University since 2008, it has submitted a proposal to University Grants Commission to offer this program under Skill development course. UGC has given permission to conduct program. In coordination with ONGC and other oil industry expertise, the course structure is being designed suitable to oil industry.

Salient features:

- Industry-academia collaborative designed program
- Develops skills to take up a leading role in drilling activities of hydrocarbon
- Provide core competency in upstream area providing emphasis on mud logging, wellsite geology and formation evaluation techniques
- Makes student ready to take up roles as mudlogger, well logger, well tester
- Industry-academic collaborative desk-cum-lab and field training

Experienced Faculty: University faculty and Industry expertise

Careers as:

Well logger Mud logger Well Tester

Fees structure: Rs. 10500/- per annum

Eligibility:

PG in Geology/Geoscience/Earth Science/Geophysics or BTech in Petroleum Engineering

Admission process: Through Admission test

Examination / Evaluation system:

Through conventional mid-semester, semester-end examinations and Field reports/institutional/industrial/case-studies based project works

For Details Contact: The Head, Dept of Geology, UCST, AKNU





Adikavi Nannaya University Rajamahendravaram

GERTIFICATE COURSE IN MUSHROOM CULTIVATION AND ESTABLISHMENT OF TRAINING UNIT Department of Botany University College of Science and Technology Certificate Course in Mushroom Cultivation and Establishment of Training Unit

- It is a 6 months program, offered as a part time evening course and until the Covid restrictions are completely lifted, the classes would be in an on-line mode.
- Any one looking for a personal source of income, entrepreneurship and self employment with a 10+2 qualification are eligible to apply.

Importance of Mushrooms

- Mushrooms are a valuable source of health food low in calories, rich in carbohydrates, essential amino acids, fibres, important vitamins and minerals .
- Medicinally they are immunity boosters, anti-cancerous, anti-hypercholesterolaemic, hepato-protective, with anti-HIV, anti-viral properties, ameliorate the toxic effect of the chemo and radio-therapy

Salient features

- Hands on training in identification and cultivation of different types of edible mushrooms
- Processing of mushrooms and value addition
- Establishment of a business unit for mushroom and spawn production
- How to register for udyog adhaar, pan card, proposal writing, banking, GST registrations
- What are the Governmental and Non Governmental schemes and subsidies available
- Over all training in Production, Marketing and Accounting

For admission Download the application from www.aknu.edu.in / UGC NSQF Program By paying a DD for Rs.500/- in the name of Registrar, Adikavi Nannaya University

Online payment in the name of ANUCET; Account Number: 062611011000715; IFSC Code: ANDB0002381

The scanned copy of filled in application form along with the payment details can be uploaded in the google form link provided here https://forms.gle/2PTfSB3UsaAcT8az5

online submission of application last date extended upto 20^{th} December -2020 $_{\sigma}$

counselling date 21st to 25th Dec - 2020 .

Reporting of the students is on 23th Dec -2020



ADIKAVI NANNAYA UNIVERSITY RAJAMAHENDRAVARAM, E.G. Dist. A.P. INDIA



Certificate course on

Aquaculture Feed preparation, Analysis and Management

Department of Zoology and Aquaculture University College of Science and Technology

About the Course

There is a need on the major ingredients used in commercial fin fish feed and shell fish feed, to understand and evaluate the kind of ingredients that will be in demand with the increase in aquaculture production. There are also Central and State Governments initiatives for promoting aquaculture production and industry restraints of the commercial aqua feed market as well as technological advancements in aquaculture industry.

Course Outcomes

On successful completion of the course, students will be able to:

- Get employment in specific area
- · Get the knowledge of different types of aquaculture practices
- · Build up capability in self-employment and income generation
- Apply for various government, non government schemes for establishing an independent aquaculture farm.
- Expand research ability



UGC-NSQF PROGRAM

Duration 6 Months

Eligibility Any Graduation and Post Graduation with Fisheries /Aquaculture

> Application Fee Rs.500/-

> > Course Fee Rs.5000/-

FOR ADMISSION

www.aknu.edu.in By Paying a DD for Rs.500 in the name of Registrar, ANUR or Online Payment in the name of ANUCET,

A/c.No.062611011000715

Please fill the link below and furnish the details

https://forms.gle/2PTfSB3U saAcT8az5



University College of Engineering is a constituent 03 Months college of Adikavi Nannaya University was established with a goal to serve the academic needs of the students of Godavari Districts in the frontiers of Technical Education. The College of Engineering since its inception is on the rapid path of progress and expansion. The College aspires to achieve holistic development of the student through latest techniques and methods of teaching.

About Certificate Course

Effective communication skills are essential for a successful career and are most sought after in business organizations. They are crucial for getting jobs and professional advancements. When we communicate well, people understand accurately what we are trying to say, and vice versa. This can be achieved verbally, visually, non-verbally, and through Good communication trims down writing. misunderstandings and cuts the costs due to mistakes, by building relationships among employees, both on a professional and social level.

By improving your interpersonal communication skills, you will gain deftness and refinement in dealing with various situations. If you know what to say and how to say it you have practically won the game with verve. This course helps you in acquiring communication proficiency by learning tact, skill and confidence. It aims to explore the dexterity required for effective communication, by helping you build it up with clarity, impact and also enlarge your sphere of Influence.



Venue

N Block Computer Lab

Student Limit

60 Students Batch

Resource Person

BB Ahmad Alibaba

Asst Professor, **Department of Science & Humanities** University College of Engineering Adikavi Nannaya University

Coordinator

Mr M Bala Krishna

Course Coordinator Department of Science & Humanities University College of Engineering Adikavi Nannaya University





ADIKAVI NANNAYA UNIVERSITY **UNIVERSITY COLLEGE OF ENGINEERING** RAJAMAHENDRAVARAM

CERTIFICATE **COURSE ON** ENGLISH COMMUNICATION SKILLS

An initiative of UCE to enhance the English Communication skills for academic and professional progress of the University Students

PRINCIPAL



DEPARTMENT OF PSYCHOLOGY

UNIVERSITY COLLEGE OF ARTS & COMMERCE

ADIKAVI NANNAYA UNIVERSITY

RAJAMAHENDRAVARAM

Certificate Course

Counselling Skills

DURATION- 3 MONTHS ELIGIBILITY - ANY DISCIPLINE

Counselling Skills Programme is designed to give learners the underpinning knowledge, skills, and competencies to use counselling skills ethically and safely in a variety of contexts and roles. The Certificate Course will offer an appropriate starting point for students to apply these skills in their personal & professional life.





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ADIKAVI NANNAYA UNIVERSITY

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Course Coordinator Department of Science & Humanities University College of Engineering Adikavi Nannaya University





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PRINCIPAL



DEPARTMENT OF PSYCHOLOGY

UNIVERSITY COLLEGE OF ARTS & COMMERCE

ADIKAVI NANNAYA UNIVERSITY

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A Block Computer Lab

Student Limit

60 Students Batch

Coordinator

Mrs. N. Sajna Raj

Course Coordinator Department of English University College of Arts & Commerce Adikavi Nannaya University Rajahmundrv





ADIKAVI NANNAYA UNIVERSITY UNIVERSITY COLLEGE OF ARTS & COMMERCE RAJAHMUNDRY

CERTIFICATE **COURSE ON** ENGLISH COMMUNICATION SKILLS

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DEPARTMENT OF PSYCHOLOGY

UNIVERSITY COLLEGE OF ARTS & COMMERCE

ADIKAVI NANNAYA UNIVERSITY

RAJAMAHENDRAVARAM

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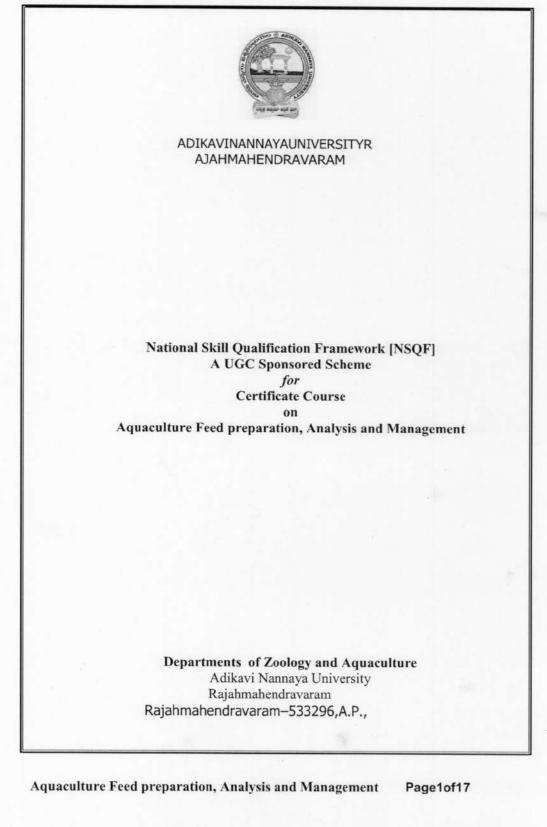


for CAdmission

Course Coordinator, Department of Psychology, UCAC, AKNU, RJY.

www.aknu.edu.in







S.No		Name of the member
1	Chairman	Vice-Chancellor
2	Principal/Director/Nodal officer of the programme / Centre,	Nodal Officer
3	One representative of the partner industy(s),	Mar. Achok Reddy Greneral Hanger, CA Aquacultur Judia Pyt. Ht. Mr. B. Jayant Kumar Vaisadehi Bio Harine, VSP.
4	one nominee of the Controller of Examination	Dean, examination
5	one external expert.	Der P. V. Koushna, Associate Professor Detrog Squeettie Achanya Nagozjuna Universite
6	additional experts on the Skill Assessment Board, if required.	Dean Academic Affairs Dean Academic Affairs Coordinator BOS Chairman / Convener One additional expert

Chairman

Board of Studies in Zoology Adikavi Nannaya University Rajamahendravaram - 533296

Aquaculture Feed preparation, Analysis and Management Page2of17



MinutesofBoardofStudies

Board of studies meeting for National skill qualification framework [NSQF] certificate course on Aquaculture feed preparation, analysis and management.

Minutes of the meeting of board of studies held on 24/12/2020 at 12 noon on online

Agenda

- To approve the syllabus for National skill qualification framework [NSQF] certificate course on Aquaculture feed preparation, analysis and management
- 2. To approve the Marks and credits for the course
- 3. To approve the number of teaching hours for the course
- 4. To approve the University component and Industry component for the course
- 5. If Any other

RESOLUTIONS:

The board members have discussed the agenda through Online meeting (https://meet.google.com/heo-nzxx-vgo) and resolved the following.

 It has been resolved that Bachelors and Masters graduate with "Aquaculture/Fisheries" as one of the subjects are preferred to apply for admission into National skill qualification framework [NSQF] certificate course on Aquaculture feed preparation, analysis and management.

2. The members formulated the syllabus for National skill qualification framework certificate course on Aquaculture feed preparation, analysis and management with a duration of 6 months beginning from the academic year 2020-21. (On campus for 4 months and 2 months industry training)

 There shall be 3 days class work per week. For those candidates holding a job Industrial training is to be done during vacation period.

4. Marks and credits are allotted to theory and practical papers including project work.

Aquaculture Feed preparation, Analysis and Management

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Aquaculture Feed preparation, Analysis and Management Page4of17



Board of Studies-UGC NSQF Certificate Course On Aquaculture Feed preparation, Analysis and Management

s.No.	Name of the Member	Signature
1	Chairman Principal, University College of Science and Technology, Adikavi Nannaya University, Rajamahendravaram	Busicessity
2	Convener Dr. D.Kalyani, Assistnt, Professor, Department of Zoology, Adikavi Nannaya University, Rajamahendravaram	D. Kabyer
3	Coordinator Dr. K. Ramaneswari, Dept of Zoology – Adikavi Nannaya University Rajamahendravaram.	Canarail 24/12
4	Head Head, Department of Aquaculture, Adikavi Nannaya University Rajamahendravaram	PVijijavalenura
5	Experts I.Dr. P.V. Krishna Associate Professor Department of Aquaculture, Acharya Nagarguna University, Guntar	Marine Buchery rono
	 D Jayant Komar Director, Vaisakhi Hio marine Visakhapatnam 	and you fur from
1	Dr.A.Matta Reddy Associate Professor Department of Zoology UCST, Adikavi Nannaya University Rajamahendravaram	. N. W. 24/12/24/12/24
	Mr. Ashok Reddy, General Manager, CP Aquaculture INDIA., Pvt. Ltd	
3.	Mr. Selvin Jaya Kumar, HR, CP Aquaculture INDIA., Pvt. Ltd	15- Jole June
6.	Dr.D.Sridhar, Asst. Prof. Ad hoe Department of Aqua culture UCST. Adikavi Nannaya University Rajamahendravaram	& Sidhor

Aquaculture Feed preparation, Analysis and Management - 533296



CONTENTS

- 1. Preamble
- 2. Objectives
- 3. Course Outcome
- 4. BoS Committee
- 5. Course Structure
- 6. Syllabus
- 7. References
- 8. Model Papers

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Board of Studies in Zoology Adikavi Nannaya University Rajamahendravaram - 533296

Aquaculture Feed preparation, Analysis and Management

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UGC in recent years had made initiatives to reorient and restructure the policies of higher education. For creating a boost to the economic growth and social development It has recognized the need and importance of the skills in the students by bringing down the demand – supply mismatch with ready manpower as skills and knowledge. In addition to conventional disciplines, there is a need to introduce some career oriented courses where qualified students may learn certain skills and knowledge which will provide them more openings in service, industry and self employment sectors.

Findings for the past and future trends, drivers and challenges, regional aquafeed demand break up of finfish and shellfish is show that there is a need on the major ingredients used in commercial finfish feed, to understand and evaluate the kind of ingredients that will be in demand with the increase in aquaculture production. There are also central and state governments initiatives for promoting aquaculture production and industry restraints of the commercial aquafeed market as well as technological advancements in aquaculture industry. In view of the facts the department of Aquaculture would like to establish skill development courses in Adikavi Nannaya University Campus. M.Sc Aquaculture course was started in 2016-17 academic year. This sector provides good employment and research opportunities for students, because aquaculture is one of the growth engine of Andhra Pradesh,

Students with requisite qualification, age no bar, are eligible to take this course for starting their careers.

Objectives:

- Provide knowledge for sustainable aquaculture
- Provide the students an on field exposure to help them in understanding the Aquaculture practices
- > Provide the learners an experience in research for Aquaculture production
- Enhancing skills of rural youth commercial fish farming and increasing their entrepreneurship opportunities
- Effective utilization of aquatic and land resource
- Providing means of livelihood through commercial and industrial aquaculture.

Course Outcome:

On successful completion of the course, students will be able to:

- ✓ Get Employment in specific area
- ✓ Get the knowledge of different types of Aquaculture practices
- ✓ Build up capability in self-employment and income generation
- Apply for various Government, Non Government Schemes for establishing an independent aquaculture farm.
- ✓ Expand research ability

Aquaculture Feed preparation, Analysis and Management



National Skill Qualification Framework [NSQF] A UGC Sponsored Scheme Certificate Course on

Aquaculture Feed preparation, Analysis and Management

Members of Board of Studies

S.No.	Designation	Name of the Member
1.	Chairman	Principal, University College of Science and Technology, Adikavi Nannaya University, Rajamahendravaram
2.	Convener	Dr. D.Kalyani, Assistnt. Professor. Department of Zoology, Adikavi Nannaya University, Rajamahendravaram
3.	Coordinator	Dr. K. Ramaneswari, Dept of Zoology Adikavi Nannaya University
4.	Head	Head, Department of Aquaculture, ANUR
5	Experts	 Dr. P.V. Krishna Associate Professor Department of Aquaculture, Acharya Nagarguna University, Guntur
		 B.Jayant Kumar, Director, Vaisakhi Bio- marine, Visakhapatnam
		 Dr.A.Muralidhar, Scientist- Incharge, CIFE, Kakinada
		 Dr.A.Matta Reddy,Associate Professor,Department of Zoology,UCST,ANUR.
		 Mr. Ashok Reddy, General Manager, CP Aquaculture INDIA Pvt. Ltd.
		 Mr. Selvin Jaya Kumar CP Aquaculture INDIA Pvt. Ltd
die -		 Dr.D.Sridhar, Asst. Prof. Ad hoc, Department of Aquaculture, UCST, ANUR.

Aquaculture Feed preparation, Analysis and Management

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National Skill Qualification Framework [NSQF] Aquaculture Feed preparation, Analysis and Management Departments of Zoology and Aquaculture

Adikavi Nannaya University

Rajahmahendravaram

Course	Title of the Paper	Teaching Hours/week	Duration of Exam	Maximum Marks	credits
Theory					
Paper I	Principles of aquaculture	4	3	100	4
Paper II	Fish nutrition and feed technology	4	3	100	4
Paper III	Feed management and economics	4	3	100	4
	Total	12		300	12
Practicals					
Paper IV	Principles of aquaculture	4	3	100	4
Paper V	Fish nutrition and feed technology	4	3	100	4
Paper VI	Feed management and economics	4	3	100	4
Project work Total Grand Total Marks and Credits for th Scheme of Examination Theory Pass Practical Pass		2 months		150	6
		12		450	18
		he Course		750	30
		At the end of the course Minimum 35% (35 Marks in each Paper) Minimum 50% (50 Marks in each Paper)			

Aquaculture Feed preparation, Analysis and Management

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UGC National Skill Qualification Framework [NSQF] Aquaculture Feed preparation, Analysis and Management Syllabus

THEORY Paper I : PRINCIPLES OF AQUACULTURE

4 Credits

Unit I: Basics of aquaculture-definition and scope. Present global and national scenario. Culture systems of aquaculture - pond culture, pen culture, cage culture, running water culture, zero water exchange system, etc. Extensive, semi-intensive, intensive and super intensive aquaculture in different types of water bodies *viz.*, freshwater, brackishwater and inland saline ground water.

UNIT II: Pre-stocking and post stocking pond management. Criteria for selection of species for aquaculture.

Unit III:. Major cultivable species for aquaculture: freshwater, brackish-water and marine. Monoculture, polyculture and integrated culture systems.

Unit IV:Water and soil quality in relation to fish production. Physical, chemical and biological factors affecting productivity of ponds

Paper II : NUTRITION AND FEED TECHNOLOGY FOR FIN FISH AND SHELL FISH 4 Credits

Unit I: Nutritional requirements of cultivable fish and shellfish. Forms of feeds: wet feeds, moist feeds, dry feeds, mashes, pelleted feeds, floating and sinking pellets.

Unit II:Feed additives: binders, antioxidants, enzymes, pigments, growth promoters, feed stimulants. Feed storage, use of preservatives and antioxidants.

Unit III: Feed evaluation - feed conversion ratio, feed efficiency ratio, protein efficiency ratio, net protein utilization and biological value.

Unit IV: Feeding devices and methods. Non-conventional feed ingredients and anti-nutritional factors. Digestive enzymes, feed digestibility. Factors affecting digestibility. Nutritional deficiency diseases.

Aquaculture Feed preparation, Analysis and Management

Page10o



Paper III: FEED MANAGEMENT&ECONOMICS FOR FIN FISH AND SHELL FISH 4 Credits

Unit I: Feed Manufacture: Feed formulation and processing, On-farm feed manufacture, Commercial feed manufacture, Feed storage

Unit II: Feeding Practices: Supplementary feed-theory and practice, Complete diet - theory and practice, Feeding methods and scheduling, ration size, feed performance and economics. culture and use of different live feed in shellfish hatcheries, Aquarium fish feeds

Unit III: Introduction to fisheries economics, Farm production economics – production functions in capture and culture fisheries; Costs and returns – breakeven analysis of fish production system.

Unit IV: Factors of fish production, marginal cost and return, law of diminishing marginal return, economies of scale and scope, Revenue, profit maximization, measurement of technological change, farm planning and budgeting.

PRACTICALS

Paper IV:

4 Credits

4 Credits

- 1. Cultivable importance of fish & Shell fish Species
- 2. Practices on pre-stocking and post stocking management.
- 3. Analysis of water and soil samples.
- 4. Design and layout of fresh water and brackish water farms, fish and shrimp hatcheries
- 5. Visit to farms and hatchery.
- 6. Estimation and calculations of production costs of fish/shrimp farm.
- 7. Different types of filters.
- 8. Determination of Temperature, pH, Turbidity.
- 9. Total Alkalinity and total Hardness.
- 10. Dissolved Oxygen
- 11. Estimation of soil organic carbon
- 12. Estimation of nitrogen in soil.

Paper V:

- 1. Proximate composition analysis of feed ingredients and feeds.
- 2. Preparation of artificial feeds using locally available feed ingredients.
- 3. Estimation of FCR from feeding trials and preparation of feeding table.
- 4. Estimation of growth parameters from feeding trials
- 5. Collection, identification and isolation of live food organisms using various techniques
- 6. Supplementary feeds Identification.

Aquaculture Feed preparation, Analysis and Management A Page110f17

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Paper VI

4 Credits

- 1. Formulation and preparation of a balanced fish feed;
- 2. Feeding trials
- 3. Determination of gross energy content of feed and feed ingredients;
- Gut content analysis to study artificial and natural food intake. Visit to feed manufacturing units.
- 5. Check tray assessment and feed ration calculation;
- 6. Demand and supply functions of fish market determination of equilibrium price for fish and fisheries products,
- 7. Production function production with one or two variable inputs.
- Economic analysis on cost, return and break even of any two production units like fish farm / shrimp farm / seed production unit / fish processing plant / export unit.
- 9. Preparation of enterprise budget for integrated fish farming.
- 10. Contribution of fisheries to Indian Agriculture and total GDP a trend analysis.

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8. 9. 10. 11. 12. 13.

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Model Paper for THEORY

Paper I, II, III

(with effect from 2020-21 admitted batch)

Time : 3 hrs		Max.Marks: 100
	Section A	
Answer all questions		(4X15=60)
1.	a.	
	or	
	b.	
2.	a.	
	or	
	b.	
3.	a.	
	or	
	b.	
4.	а	
	or	
	b	
	Section B	
Answer any 5 questions		(5X8=40)
5.		
6.		
7.		

Aquaculture Feed preparation, Analysis and Management

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Model Paper for PRACTICAL Paper IV, V, VI (with effect from 2020-21 admitted batch)

Time : 3 hrs	Max.Marks: 100
1.	[15]
2.	[20]
3.	[15]
4.	[15]
5.	[15]
6. Viva-voce	[10]
7. Practical record	[10]

Aquaculture Feed preparation, Analysis and Management

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ADIKAVI NANNAYA UNIVERSITY, RAJAHMUNDRY UGC National Skill Qualification Framework [NSQF] Aquaculture Feed preparation, Analysis and Management

Model Question Paper: PaperI : PRINCIPLES OF AQUACULTURE

Section-A

(4X15=60)

Time: 3hours

Max. Marks: 100

Answer ALL questions.

 a) What is scope and basis of Aquaculture and analyze the Present global and national scenario.

(or)

b) Describe different culture Systems of aquaculture

2. a) Explain the details in Criteria for selection of species for aquaculture.

(or)

- b) Discuss about Pre-stocking and post stocking pond management. Add a note on Major cultivable species for aquaculture.
- 3. a) Explain the Monoculture and polyculture systems.

(or)

- b) Discuss about Integrated culture systems
- 4. a) Explain the Water and soil quality in relation to fish production

(or)

b) Discuss about Physical, chemical and biological factors affecting productivity of ponds.

Section-B

Answer any 5 questions

5) Cage culture

- 6) Super intensive aquaculture
- 7) Zero water exchange system
- 8) Polyculture
- 9) Extensive culture
- 10) Semi-intensive culture
- 11) Integrated culture systems
- 12) Aquaculture-definition and scope
- 13) Different types of water bodies

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Aquaculture Feed preparation, Analysis and Management

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(5X8=40)



ADIKAVI NANNAYA UNIVERSITY, RAJAHMUNDRY UGC National Skill Qualification Framework [NSQF] Aquaculture Feed preparation, Analysis and Management Model Question Paper: Paper II : NUTRITION AND FEED TECHNOLOGY FOR FIN FISH AND SHELL FISH

Time: 3hours

Section-A

Answer ALL questions.

(4X15=60)

1. a) Write in detail the Nutritional requirements of cultivable fish and shellfish .

(or)

b) Write an essay on Forms of feeds.

2. a) Write in detail the Feed additives

(or)

(or)

- b) Write in detail about different Feed storage methods
- 3. a) Write in detail the Feed evaluation. Add a note on feed efficiency ratio

b) Explain the net protein utilization and biological value. Add a note on feed conversion ratio

4. a) Write the Feeding devices and methods

(or)

b) Write the Non-conventional feed ingredients and anti-nutritional factors. Add a note on Digestive enzymes

Section-B

Answer any 5 questions

- 5) Wet feeds
- 6) Pelleted feeds
- 7) Binders, antioxidants
- 8) Feed storage
- 9) Feed efficiency ratio
- 10) Protein efficiency ratio
- 11) Feed digestibility
- 12) Factors affecting digestibility
- 13) Nutritional deficiency diseases

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Aquaculture Feed preparation, Analysis and Management

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(5X8=40)

Max.Marks: 100



ADIKAVI NANNAYA UNIVERSITY, RAJAHMUNDRY UGC National Skill Qualification Framework [NSQF] Aquaculture Feed preparation, Analysis and Management Model Question Paper: Paper III : FEED MANAGEMENT&ECONOMICS FOR FIN FISH

AND SHELL FISH

Time: 3hours

Max. Marks: 100

- Mart

Answer ALL questions.

Section-A (4X15=60)

1. a) What is Feed formulation and processing

(or)

b) Describe the On-farm feed manufacture & Commercial feed manufacture

 a) Explain the details in Supplementary feed-theory and practice & Complete diet – theory and practice,

(or)

- b) Discuss about culture and use of different live feed in shellfish hatcheries. Add a note on Aquarium fish feeds.
- 3. a) Discuss the economics of fisheries

(or)

b) Write an essay on Break-even Analysis and Profitability of Aquaculture

4. a) Discuss the law of diminishing marginal return in Aquaculture

(or)

b) Discuss about the farm planning and budgeting

Section-B

Answer any 5 questions

5) Feed formulation

- 6) Feed storage
- 7) Feeding methods
- 8) Breakeven analysis of fish production system
- 9)Feed scheduling
- 10) Factors of production
- 11) Marginal cost and return
- 12) Law of diminishing marginal return
- 13) Returns to scale

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Aquaculture Feed preparation, Analysis and Management

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(5X8=40)

ADIKAVI NANNAYA UNIVERSITY Rajamahendravaram

National Skill Qualification Framework [NSQF]

A UGC Sponsored Scheme for Certificate Course

In

Mushroom Cultivation and Establishment of Training Unit

by

DEPARTMENT OF BOTANY UNIVERSITY COLLEGE OF SCIENCE AND TECHNOLOGY

CONTENTS

1. Preamble

2. Objectives

3. Course Outcome

4. BoS Committee

5. Course Structure

6. Syllabus

7. References

8. Model Papers

Chairman Board of Studies in Botany Adikavi Nannaya University Pajamahendravaram - 533296

PREAMBLE

In recent years UGC took some steps to reorient and reshape its policies regarding higher education. In order to bring down the demand – supply mismatch, a need for developing skills in the students was realized; to create work ready manpower as skills and knowledge are the driving forces of economic growth and social development of the country. In addition to conventional disciplines, there is a need to introduce some career oriented courses where qualified students may learn certain skills and knowledge which will provide them more openings in service, industry and self employment sectors.

The present certificate course in Mushroom Cultivation and Establishment of Training Unit was introduced in the year 2020-21. Students with 10+2 qualification, age no bar, are eligible to take this course for starting their own business. Others with an inclination towards startup and Atma Nirbhar Bharath can also join since this course is conducted as a part time evening program. 75% attendance is mandatory for pass certificate.

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Objectives:

- ✓ Enable the students to identify edible and poisonous mushrooms
- Provide hands on training for the preparation of bed for mushroom cultivation and spawn production
- ✓ Give the students an industrial exposure to help them in understanding the establishment and functioning of mushroom farms
- ✓ Value addition of the mushroom products
- ✓ Learn marketing strategies local to cross country
- Understand the available financial schemes and application processes for establishing a farm
- Give the learners an experience in research for qualitative and quantitative mushroom production

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Course Outcome:

On successful completion of the course, students will be able to:

- ✓ Identify edible types of mushroom
- ✓ Gain the knowledge of cultivation of different types of edible mushrooms and spawn production
- ✓ Manage the diseases and pests of mushrooms
- ✓ Develop competency in self-employment and income generation
- ✓ Packaging, Storing and grading of mushroom; post harvest procedures
- Apply for different Government, Non Government Schemes for establishing a production unit
- ✓ Markets available for commercial production
- ✓ Develop research aptitude

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DEPARTMENT OF BOTANY

NSQF - Certificate Course in Mushroom Cultivation and Establishment of Training Unit

BoS Committee							
S.No.	Designation	Name of the Member					
1.	Chairman	Principal, UCST, Adikavi Nannaya University, Rajamahendravaram					
2.	Convener	Dr. Padmavathi, Asst. Prof. Ad hoc, Department of Botany, Adikavi Nannaya University, Rjamahendravaram					
3.	Coordinator	Dr. Padmavathi, Asst. Prof. Ad hoc, Department of Botany, Adikavi Nannaya University, Rajamahendravaram					
4.	Head	Head, Department of Botany					
5.	Experts	 Dr. Patan Shah Valli Khan, Professor Department of Botany, Yogi Vemana University, Kadapa 					
		 Mr. P. Ram Mohan Rao, IFS, Conservator of Forests and Regional Manager, Forest Development Corporation Limited Rajamahendravaram 					
		 Dr. S V Krishna Reddy, Principal Scientist, Division of Crop Production, ICAR – CTRI, Rajamahendravaram 					
		 Dr. L. Mutyala Naidu Asst. Prof. Ad hoc, Department of Botany, Adikavi Nannaya University, Rajamahendravaram 					
		 Dr. K. Samuel Kumar, Asst. Prof. Ad hoc, Department of Botany, Adikavi Nannaya University, Rajamahendravaram 					
		 Ms. M. Prajna, Asst. Prof. Ad hoc, Department of Botany, Adikavi Nannaya University, Rajamahendravaram 					
		 Dr. J. Suneetha, Professor and Head, Department of Botany, Government Arts College (A), Rajamahendravaram 					
		 Mrs. G. Jyothi, Lecturer and Head, Department of Botany, Dr K. S. Raju Arts and Science College, Penugonda 					
•		 Mrs. K. Sri Lakshmi Lakshmi Mushroom, Hukumpeta, Rajamahendravaram 					
		 Mrs. Soudhamini. P President, COWE (Confederation of Women Entrepreneurs), India 					
6.	Student Representatives	 One PG – Boy One PG - Girl 					

Chairman

Board of Studies in Botany Adikavi Nannaya University Pajamahendravaram - 533296

Adikavi Nannaya University, Rajamahendravaram

Certificate Course in Mushroom Cultivation and Establishment of Training Unit Course Structure

Course	Title of the Paper	Teaching Hours/week	Duration of Exam	Maximum Marks	credits	
Theory		Hours/ week	01 LXdIII	IVIAIKS	_	
	Martin		2	100		
Paper I	Morphology and Characteristics of Mushrooms	4	3	100	4	
Paper II	Commercial Cultivation of Mushroom	4			4	
Paper III	Business establishment and marketing strategies	4	3	100	4	
	Total	12		300	12	
Practical	s					
Paper IV	Morphology and Characteristics of Mushrooms	4	3	100	4	
Paper V	Paper V Commercial Cultivation of Mushroom		3	150	6	
Paper VI	Business establishment and marketing strategies	4	3	100	4	
_	Project work			100	4	
	Total	12		400	18	
Grand T	otal Marks and Credits for	the Course		750	30	
Sche	eme of Examination	At the end of the course Minimum 35% (35 Marks in each Paper)				
	Theory Pass					
	Practical Pass	Minimum 50% (50 Marks in Paper IV& VI; 75 in Paper V)				

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Certificate Course in Mushroom Cultivation and Establishment of Training Unit Syllabus

THEORY

Paper I : Morphology and Characteristics of Mushrooms 4 Credits

Unit I: General account of Fungi – beneficial and harmful. Significance of the beneficial fungi – the mushroom; Occurrence – Epigenous, Hypogenous; Morphology and life cycle of mushrooms.

Unit II: Natural Habitats- Humicolous, Lignicolous and Coprophilous. Differentiation of edible and poisonous mushroom. Description of Edible Types. Nutritional and antinutritional properties; medicinal values

Unit III: Natural growth aspects and climatic requirements for each type of edible mushrooms. Identification of appropriate type of mushroom for commercial cultivation.

Unit IV: Present scenario and prospects of mushroom cultivation. Diseases – Fungal diseases and control measures; Bacterial diseases and control measures. Pests and their management strategies

Paper II : Commercial Cultivation of Mushroom 4 Credits

Unit I: Basic materials required in milky mushroom cultivation. Methods used for commercial cultivation – mushroom substrate selection, substrate soaking, pasteurization etc.

Unit II: Role and method of compost preparation, Sterilization procedures; preparation of value added products

Unit III: preparation of spawn substrate, process of spawn culture, selection of correct spawn, culture maintenance, mother spawn production and storage of spawn.

Unit IV: Harvesting of mushrooms: identifying the right stage for harvesting, methods of harvesting; grading, packaging and storing mushroom

Paper III: Business establishment and marketing strategies 4 Credits

Unit I: Design and layout of mushroom farm. Equipment and tools and other infrastructure facilities required, safety measures in the farm. Approximate expenditure for establishing the production unit

Unit II: Storage of fresh mushrooms and dry mushrooms. Processing of mushrooms – canning, dehydration and packing,

Unit III: Market opportunities; market liabilities, exploring local and national markets, scope of exim policy/ foreign trade policy; log books / related documents for audit

Board of Studies in Botany Adikavi Nannaya University Rajamahendravaram - 533296 Unit IV: Banking – Deposits, advances, loan facilities; Government sponsored schemes and subsidies, legal processes in company / industry registration and agricultural finance, and patenting

PRACTICALS Paper IV:

4 Credits

- 1. Study of external characters of mushroom
- 2. Study of internal characters
- 3. Study of different species of mushrooms
- 4. Identification of edible mushrooms
- 5. Life cycle of typical mushroom
- 6. Common diseases and pests in mushroom cultures
- 7. Nutritional values of mushrooms
- 8. Medicinal usages of mushrooms

Paper V:

- 1. Media preparation for Spawn culture
- 2. Spawn culture and multiplication
- 3. Maintenance of pure culture
- 4. Storage technique of spawn
- 5. Composition of compost and bed preparation
- 6. Preparation of different types of compost
- 7. Pasteurization of compost and sterilization processes
- 8. Seeding technique of spawn in compost
- 9. Harvesting stage and methodology
- 10. Packaging and labeling process
- 11. Value addition in mushroom products
- 12. Recipes in mushroom cuisine

Paper VI

- 1. The standard specifications in the designing and construction of mushroom farm
- 2. Business plan preparation
- 3. How to apply for different Government schemes and subsidies
- 4. Safety protocols necessary in the establishment
- 5. Records and documents to be maintained by the commercial unit for audit
- 6. Legal procedures for the establishment of unit
- Business proposal writingTechnical, financial, marketing and commercial aspects of business

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4 Credits

6 Credits

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4. Pathak, V. N. and Yadav, N. (1998). Mushroom Production and Processing Technology. Agrobios, Jodhpur.

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You Tube Videos

https://www.youtube.com/watch?v=9TSRcTAJYek

https://www.youtube.com/watch?v=piY2-R1Wgwk

https://www.facebook.com/lakshmimushrooms/videos/one_year_agotraining-program-on-milkymushroom-cultivation-conducted-by-ctri-kvk/1759570287690349/

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CERTIFICATE COURSE IN MUSHROOM CULTIVATION AND ESTABLISHMENT OF TRAINING UNIT

Paper I: Morphology and Characteristics of Mushrooms

(with effect from 2020-21 admitted batch)

Time : 3 hrs

Max.Marks: 100

Section A

Answer all questions

(4X15=60)

1. a. Write in detail the external and internal characteristics of mushrooms

or

- b. Give a detailed account of life cycle in mushrooms
- 2. a. Describe the Natural Habitats of Mushrooms

or

- b. Give an account of the nutritional and antinutritional properties of mushrooms
- 3. a. Illustrate the different types of edible mushrooms of India

or

- b. Identify the appropriate types of mushrooms for commercial cultivation
- 4. a. Write about the prospects of mushroom cultivation

or

b. Detail the healthy mushroom cultivation strategies

Section B

Answer any 5 questions

- 5. Poisonous Mushrooms
- 6. Nutritional properties
- 7. Structure of milky mushrooms
- 8. Natural growth parameters
- 9. Commercial cultivation
- 10. Climatic requirements
- 11. Bacterial diseases in mushrooms
- 12. Pest management
- 13. Fungal diseases

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Board of Studies in Botany Adikavi Nannaya University Pajamahendravaram - 533296

(5X8=40)

CERTIFICATE COURSE IN MUSHROOM CULTIVATION AND ESTABLISHMENT OF TRAINING UNIT

Paper II : Commercial Cultivation of Mushroom

(with effect from 2020-21 admitted batch)

Time : 3 hrs

Max.Marks: 100

Section A

Answer all questions

(4X15=60)

1. a. List out the material required for milky mushroom cultivation

or

b. Describe the different methods used for commercial mushroom cultivation

2. a. Write about the different methods used in compost preparation

or

b. Give an account of the sterilization protocols in mushroom cultivation

- 3. a. Explain the spawn culture preparation
- or
- b. Detail the process of mother spawn production
- 4. a. What are the different strategies used in mushroom harvesting

or

b. Illustrate the grading, packaging and storing of mushrooms

Section B

Answer any 5 questions

- 5. Bulk Chamber
- 6. Substrate selection
- 7. Design of farm
- 8. Spawn selection
- 9. Incubation
- 10. Pasteurization
- 11. Grading
- 12. Mushroom packaging
- 13. Storage strategies

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(5X8=40)

CERTIFICATE COURSE IN MUSHROOM CULTIVATION AND ESTABLISHMENT OF TRAINING UNIT

Paper III: Business establishment and marketing strategies

(with effect from 2020-21 admitted batch)

Time : 3 hrs

Section A

Answer all questions

(4X15=60)

Max.Marks: 100

1. a. What are the basic requirements in the construction of mushroom farm

or

or

- b. List out the infrastructure required in establishment of a mushroom farm
- 2. a. Write about the storage process in dry mushrooms

b. Describe the strategies in mushroom processing

3. Give an account of marketing strategies mushroom culture

or

- b. Detail the possible market liabilities in mushroom production
- a. What are the different Government schemes available for commercial growth of mushrooms

or

b. Write about the procedures in commercial establishment of mushroom farm

Section B

Answer any 5 questions

5. Designing a farm

- 6. Tools required
- 7. Safety measures
- 8. Mushroom culture- business
- 9. Audit books
- 10. Local marketing
- 11. Patenting
- 12. Loan processing
- 13. Proposal writing

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(5X8=40)

CERTIFICATE COURSE IN MUSHROOM CULTIVATION AND ESTABLISHMENT OF TRAINING UNIT

Paper IV: Morphology and Characteristics of Mushrooms

(with effect from 2020-21 admitted batch)

Time : 3 hrs

Max.Marks: 100

 Identification, classification and comment on given mushroom variety with suitable diagrams [15]
 Preparation of temporary mount of internal structure of mushroom with reference to pileus, gills and basidiospores [20]
 Identify different edible mushrooms from among the group displayed [15]
 Identify the diseases in the given material [15]
 List out the nutritional and medicinal value of mushrooms [15]
 Viva-voce [10]
 Practical record [10]

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Board of Studies in Botany Adikavi Nannaya University Rajamahendravaram - 533296

CERTIFICATE COURSE IN MUSHROOM CULTIVATION AND ESTABLISHMENT OF TRAINING UNIT

Paper V: Commercial Cultivation of Mushroom

(with effect from 2020-21 admitted batch)

Time : 3 hrs

Max.Marks: 150

1.	Write the procedures in composition, preparation and types of co	ompost in
	mushroom cultivation	[40]
2.	List out the different Sterilization and Pasteurization techniques	learnt by
	you	[30]
3.	Demonstrate the substrate preparation	[20]
4.	Write the procedures in spawn culture and multiplication	[20]
5.	Write an account on the harvesting techniques	[20]
6.	Record	[10]
7.	Viva Voce	[10]

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Board of Studies in Botany Adikavi Nannaya University Rajamahendravaram - 533296

CERTIFICATE COURSE IN MUSHROOM CULTIVATION AND ESTABLISHMENT OF TRAINING UNIT

Paper VI: Business establishment and Marketing Strategies (with effect from 2020-21 admitted batch)

Time: 3 hrs

Max.Marks: 100

- 1. Give in detail the designing of a production unit for mushroom culture[20]
- Write about the different safety protocols required in the mushroom farm establishment [10]
- Write a business plan with financial implications for establishment of a production unit [20]
- How does one apply for the Government Schemes and Subsidies available for business establishment [20]
- 5. Write a business proposal for commercial unit set up[10]6. Record[10]7. Viva Voce[10]

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Board of Studies in Botany Adikavi Nannaya University Rajamahendravaram - 533296



Department of Psychology



Syllabus for

Counselling Skills (Certificate Course - Six Months)

(2020-21 AB Onwards)

Department of Psychology University College of Arts & Commerce Adikavi Nannaya University Rajamahendravaram – 533296, A.P.



Department of Psychology



Adikavi Nannaya University :: Rajamahendravaram

Syllabus (2020-21)

Minutes of Board of Studies in Psychology Held on 23-12-2020, at 11:00 AM

Through On-Line Meeting

As per the University Grants Commission has given permission to offer Certificate Course in Counselling Skills under NSQF, the Board of studies in Psychology has been convened to prepare the course structure and syllabi.

Agenda:

Preparation of Syllabi for Certificate Course on Counselling Skills Program

Members

Prof. S. Viswanatha Reddy, S.V. University, Chairman Dr. P. Raja Sekhar, Course Coordinator & Convenor, AKNU Prof. T.V. Ananda Rao, Andhra University Dr. Karri Rama Reddy, Psychiatrist, Manasa Hospital, Rajamahendravaram Dr. Mani Ramana. CVS, AKNU Dr.Ch.N.K. Bhavani, AKNU Dr. N.V.V.S. Narayana, AKNU Mr. S. Nagendra Kishore, President - SPRUHA Mr. S. Rajesh Khanna, Secretary - SPRUHA

Resolutions:

- 1. After having detailed discussion, the committee has resolved and approved the proposed course structure and syllabi.
- 2. The regulations for examination and evaluation will be as PG Arts program of the university.
- 3. In the practicum course, case-study review based project work, report preparation and presentation will be conducted.



Department of Psychology



Objectives of the Certificate Programme:

The educational objectives are as follows:

- 1. To develop awareness and sensitivity to social realities and context of the ecosystem of individuals and society.
- 2. To understand the difference between counselling practice as a profession and the use of interpersonal and counselling skills in other helping professions.
- 3. To develop competencies for use of interpersonal and basic counselling skills ethically and safely.
- 4. To develop awareness and sensitivity about the process of individual change and personal growth with regard to self and others
- 5. To develop personal qualities and competencies to plan and engage in relevant helping and supportive interventions.

Learning Objectives:

Knowledge

- In depth understanding of the factors which contribute to positive outcomes incounsellingbasedoncontemporaryresearch
- In-depth knowledge of a trans-theoretical integrative process modelWorkingknowledgeofavarietyof theoreticalmodels.
- Contextof counselling models incontemporarysocietyincludingethicalandnondiscriminatorypractice.
- Knowledgeofpsychologicaltheoryasitcanbeappliedincounselling settings.
- Commonclientpresentingproblems

Thinkingskills

- Reflective and critical thinking
- Critical evaluation of research and research methods relevant to counselling
- Resolving or reconciling theoretical
 contradictionsresolvingormanagingethicaldilemmas
- Have engaged in the necessary personal development in order to practice as professional counsellors

Chairman



Department of Psychology



Subject-BasedPracticalskills

- Todeveloptherapeuticrelationshipsfoundedonthequalitiesofempathy,acc eptanceandgenuineness
- To produce clinical formulations and related therapeutic plans in collaboration with clients; which are in tune with clients' understanding of themselves, the process of change, and the goals and tasks of the rapy.
- To use a wide range of therapeutic interventions appropriate to the coremodel.
- Toworkeffectivelywithclients.
- To make appropriate use of clinical supervisionTomanageowncaseload

Skillsforlifeandwork(generalskills)

- Toestablisheffectiveworkingrelationships
- ToworkbothindependentlyandaspartofateamProblem solving
- Communication and presentation skillsmaking writtenandoralreports
- Self-appraisalandsettingpersonallearninggoals
- Self-presentationassecure, non-defensive and confidence-inspiring



Department of Psychology



Certificate Course On Counselling Skills

Program Structure

W.e.f (2020-21) Admitted Batch

	Subjects/Semesters	Theory/ Practical	Hours/ Week	Credits	Max. Marks (Cont./Internal Assessment)	Max. Marks University Exam	Total Marks
1	General Psychology	Т	4	4	25	75	100
	Cognitive Practical	Р	4	2	12	38	50
2	Social Work Philosophy & Concepts	Т	4	4	25	75	100
	Field Study	Р	4	2	12	38	50
3	Foundations of Counselling	Т	4	4	25	75	100
	Assessment/Testing Practical	Р	6	3	12	38	50
4	Counselling Skills & Techniques	Т	4	4	25	75	100
	Case Presentation Practical	Р	6	3	12	38	50
5	Practicum	Р	4	4		150	150
То	Total			30			750

T: Theory, P: Practical



Department of Psychology



Certificate Course on Counselling Skills

Syllabus (2020-21)

(Effect from 2020-21 admitted batch)

Course - CCS-I-PSY:: General Psychology

UNIT I: Introduction

Definition, Nature, Characteristics and Scope of Psychology; Aims of Psychology; Schools and Fields of Psychology; Methods of Psychology-Introspection, Observation, Case Study, Survey and Experimental Method. Techniques of Psychology: Interview, Questionnaires and Observation Schedule.

UNIT II: Sensation, Attention and Perception

Sensory Process: The Sensory System, Types and General Characteristics of Senses. Attention and Perception: Types and Phenomena of Attention, Determinants of Attention, Distraction, Division, Fluctuation and Span of Attention; Perceptual Organisation, Figure and Ground Relation, Major Principles of Perceptual Organisation, Depth Perception.

UNIT III: Thinking, Memory and Forgetting

Definition, Nature and Levels of Thinking; Tools of Thinking Images; Concepts and Languages; Types of thinking – Reasoning, Problem Solving, Creative Thinking, Critical Thinking: Meaning and Types of Memory, Methods of Measuring Memory, Forgetting- Meaning, Nature and Causes, Methods to Improve Memory.

UNIT IV: Learning, Motivation and Emotion.

Definition of learning – Classical Conditioning, Operant Conditioning, Insight, Observation and Latent learning. Role of Maturation and Training in learning, Reward and Punishment, Transfer of Learning. Measurement of Learning, Learning Curves; Motivation - Definition and Types of Motives- Bio and Psycho- Social Motives; Emotions - Definition and Nature of Emotions, Types of emotions.



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REFERENCE BOOKS:

1. Morgan, Clifford.T., King, Richard.A., Weisz, John.R.[^] Schopler, John (1993). Introduction to Psychology, TataMcGraw Hill.

2. Marx, Melvin H. (1976). Introduction to Psychology - Problems, Procedures & Principles, MacMillan Publishing Co.

3. Hilgard, E.R., Atkinson, R.L., Atkinson, R.C., (1979): Introduction to Psychology, Harcourt Brace Jovanovich. Inc.

Cognitive Psychology Practical

- 1. Reaction Time.
- 2. Muscular tension on mental work.
- 3. Fluctuation in efficiency of continuous work.
- 4. Transfer of learning and interference effects (P1 & R1) in verbal paired associated material.
- 5. Span of attention for unconnected letters and words vs connected letters and words
- 6. Assessment of memory using recall, recognition and relearning tests, serial position effects in free immediate and delayed recall.



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Model Question Paper Adikavi Nannaya University:: Rajahmundry Certificate Course On Counselling Skills Paper – I: General Psychology (With effect from 2020-21 A.Y.,)

Time: 3Hrs

Max. Marks: 75

Section – A

4 X 15M = 60

Each question carries 15 marks.

1. Define Psychology and explain its nature and scope. Or

Write briefly on methods of psychology.

2. Explain the perceptual processes with reference to pattern recognition. OR

Discuss span of attention.

3. Discuss the pioneering work of Ebbinghaus in the area of learning.

OR

Critically evaluate distortions of memory.

Give an account of the language structure and representations.

OR

Explain the concepts of reasoning and creativity

Section - B

5 X 3M = 15

5. Answer any FIVE of the following:

- a. Sustained Attention
- b. Reading speed
- c. Perceptual Constancies
- d. Object concepts
- e. Emotions
- f. Figure and Ground Relation
- g. Forgetting
- h. Transfer of Learning

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Department of Psychology



Course - CCS-II-PSY .: Social Work Philosophy & Concepts

UNIT - I

Social Work: concept, nature and definition of social work, scope of social work, social work as a profession. History of Social Work: Historical background of social work in UK and India

UNIT – II

Groups and Communities: Groups' definition, characteristics and types of groups Community definition, characteristics and types of community.

UNIT - III

Social stratification: caste and class, Social inequality, Social exclusion

UNIT - IV

Understanding human behaviour: Stages of human development, importance of heredity and environment, motivation, perception, personality, factors influencing on personality.

REFERENCE BOOKS:

1. Baron Pearson Education Inc, New Delhi - Social Psychology

2. S.K. Mangal Prakash Brothers Educational Publications Ludhiana - General Psychology

Field Study - Practical

The following field based activities are designed to provide the students with the specialized orientation requisite for the profession of social work:

- Field Work Orientation
- Observation Visits

1. Field Work Orientation:

The focus of the orientation is to provide an insight and understanding to the students on:

• The nature and significance of field work practice in Social Work education



Department of Psychology



- The meaning of concurrent field work in an approved agency
- Different fields of social work
- Importance of guided practice
- Guidelines on ways to relate to issues and field problems

2. Observation Visits:

The field observation visits help students to get oriented to the profession. The students are taken for observation visits to Governmental and Non -Governmental Organizations to get acquainted about the ongoing services by different groups and individuals in response to people's needs. Students are exposed to different sectors like disability, health, vulnerable groups, urban & rural community and industry. A faculty member would accompany the students during the visits to facilitate the learning process.

Objectives of the visits:

- To expose the students to various social work settings
- To observe and develop a spirit of inquiry.
- To get acquainted with the structure, functioning, staffing pattern and activities of the organization
- To understand the problems and constraints faced by the organization

Tasks to be carried out:

- Active Participation in the visits
- · Observe, interact and enquire about the organization and its functioning
- · Record all information pertaining to the organization

Skills to be acquired:

- · Organizing & Participatory skills,
- Observation& Interactive skills,
- Listening & comprehending skills,
- Analytical skills, Interpersonal skills and
- Documentation skills



Department of Psychology



Model Question Paper Adikavi Nannaya University:: Rajahmundry Certificate Course On Counselling Skills Paper – II: Social Work Philosophy & Concepts (With effect from 2020-21 A.Y.,)

Time: 3Hrs

Max. Marks: 75

Section – A

4 X 15M = 60

Each question carries 15 marks.

- A) Briefly Explain about the Nature of Social Work. (or)
 - B) Briefly explain the scope of Social Work.
- 2. A) Explain the characteristics and types of Groups.

(or)

B) Explain the characteristics and types of Community.

3. A) Briefly explain about the social satisfaction.

(or)

B) Explain the Social, Exclusion?

4. A) What are the stages of Human development?

(or)

B) Briefly explain the factors influencing on personality of an Individual.

Section – B

5 X 3M = 15

5. Answer any five of the following.

A. Social work in during Ancient period.

B. Poor Law commission in U.K

C. Social Work profession.

D. Methods of Social Work.

- E. Caste and Class
- F. Social in equality
- G. Motivation
- H. Perception



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Course - CCS-III-PSY(Core):: Foundations of Counselling

Learning Outcomes:

- > Developing a basic understanding of counselling as a profession
- Gaining an overview of basic approaches, theories and techniques in counselling
- Developing awareness about the contemporary issues and challenges in counselling
- Learning about the newer forms of therapy like solution focused therapy, narrative therapy etc.

Unit - 1: Introduction to counselling as a profession

Nature and Goals - Professional ethics (Latest version of American Counselling Association – ACA) ; Status of counselling psychology in India; Contemporary issues and challenges; challenge of online counselling and tele-counselling

Unit - 2: Approaches to Counselling I

Person centred approach; Psychodynamic approach; Behavioural approach; Cognitive behavioural approach: CBT, REBT

Unit - 3: Approaches to Counselling II

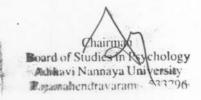
Narrative therapy; Solution Focused therapy; Creative and Expressive arts therapy; Music therapy; Yoga and Meditation.

Unit - 4: Counselling Applications:

Child Counselling; Family Counselling; Career Counselling; Crisis Intervention: suicide, grief, and sexual abuse; Stress: Nature of stress, symptoms of stress, sources of stress, Stress and health; managing stress: Methods - yoga, meditation, relaxation techniques, problem focused and emotion focused approaches.

References:

Aguilera, D.C. (1998). Crisis Intervention: Theory and Methodology (8thEd.) Philadelphia: Mosby.





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Belkin, G. S. (1998). Introduction to Counselling (3rd Ed.) Iowa: W. C. Brown.

Capuzzi, D. & Gross, D. R. (2007). Counselling and Psychotherapy: Theories and Interventions (4th Ed.) New Delhi. Pearson.

Corey, G. (2009) *Counselling and Psychotherapy; Theory and Practice*.(7th Ed.) New Delhi: Cengage Learning.

Friedlander, M.L. & Diamond, G.M. (2012).Couple and Family Therapy. In E. M. Altmaier and J.C. Hansen (Eds.) *The Oxford Handbook of Counselling Psychology*. New York: Oxford University Press

Kapur, M. (2011). Counselling Children with Psychological Problems. New Delhi, Pearson.

Sharf, R. S. (2012). *Theories of Psychotherapy and Counselling: Concepts and Cases*. 5thEdition. Belmont: Brooks/Cole (Cengage Learning).

Assessment/Testing Practical

- 1. Intelligence Testing
- 2. Vocational Interest Testing
- 3. Ability Testing
- 4. Personality Testing
- 5. Behaviour Testing
- 6. Projective Techniques
- 7. Adjustment Testing
- 8. Sociogram



Department of Psychology



Model Question Paper Adikavi Nannaya University:: Rajahmundry Certificate Course On Counselling Skills Paper – III: Foundations of Counselling (With effect from 2020-21 A.Y.,)

Time: 3Hrs

Max. Marks: 75

Section – A

4 X 15M = 60

Each question carries 15 marks.

1. Explain the status of counselling psychology in India.

OR

Discuss nature and goals of counselling.

2. Explain psychodynamic approach with examples.

OR

Discuss issues related cognitive behavioural approach.

3. Explain the importance of music therapy in the treatment procedures.

OR

What is solution focused therapy? Explain.

4. Explain different steps involved in crisis intervention.

OR

Discuss the relationship between stress and mental health.

Section – B 5 X 3M = 15

- 5. Answer any FIVE of the following
 - a. Tele-Counselling
 - b. Person centred approach
 - c. Yoga & Meditation
 - d. Family Counselling
 - e. Stress Coping strategies
 - f. Emotion Focused Approaches
 - g. Professional Ethics in Counselling
 - h. Sexual abuse



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Course - CCS-IV-PSY(Core):: Counselling Skills and Techniques

Learning Outcomes:

- Having a comprehensive understanding of the profession of counselling, particularly in the Indian context.
- Acquiring basic counselling skills of problem identification, and relationship building (e.g. empathy, listening, paraphrasing, unconditional positive regard).
- Developing qualities of an effective counsellor including increasing selfawareness, reflexivity, self-monitoring and objectivity.
- Helping clients having mild concerns in life; for instance acting as peer counsellors in the college/community.

Course Contents:

Unit – 1 Introduction

Defining counselling, goals of counselling, professional counsellors, basic counselling skills; Understanding counselling process: Development of helping relationship, counsellor –counselee relationship, Counselling goal setting process; Ethical considerations in counselling

Unit - II Core Interpersonal counselling skills

Effective Communication: SOLER, Four Listening Responses: Clarification, Paraphrase, Reflection, Summarisation, Barriers to Listening. Four Influencing Responses: Questioning - open and close ended questions, Information Giving, Self-disclosure, Confrontation. Use of silence. Distinguishing between Listening and Influencing Responses and their appropriate use.

Unit - III Specific Counselling Skills

Paraphrasing and reflecting feelings, asking questions, self-disclosing, facilitating problem solving; Inside and outside skills of counselling, Self-monitoring skills as a counsellor; Training clients in relaxation; Improving client's self-talk and self-perceptions, terminating helping.

Unit - IV Models of Counselling Skills

Nature and importance of counselling skills and working alliance; Rogers model of counselling skills, Carkhuff model of counselling skills, IPR model of

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counselling training; Indian models of counselling: the role of detachment and self-surrender.

References:

Belkin, G. S. (1998). Introduction to Counselling (3rd Ed.) Iowa: W. C. Brown.

Capuzzi, D. & Gross, D. R. (2007). Counselling and Psychotherapy: Theories and Interventions (4th Ed.) New Delhi. Pearson.

Feltham, C., & Horton, I. E. (2006). The Sage handbook of counseling and psychotherapy. London: Sage Publications.

Jones, R. N. (2008). *Basic counselling Skills: A helper's manual* (2nd Ed.). New Delhi: Sage Publications.

Practical Work:

1) Analysis of movie entitled "Good Will Hunting" for various themes of counselling, focusing on the process of counselling and the client-counsellor relationship. Watching the structure of the sessions, from initiation to termination, looking into both the client's and the counsellor's life, and the dyadic relationship the two share, and use of several counselling techniques like confrontation, paraphrasing, self-disclosure, unconditional positive regard.

2) Experiential activities for counselling skills (to be conducted in group settings):

- Exchange your shoes: In this activity dyads exchange their shoes and walk in other person's shoe literally.

- Blindfold activity for trust and support: One person in the dyad becomes the guide and the blindfolded person is helped traverse a path full of impediments.

- River of Life activity: It allows participants to reflect on personal experiences and influences that have motivated them in their life. Participants are invited to use the symbol of a river to reflect on key stages in their lives, positive experiences and influences and difficult challenges. After depicting their life in the form of a river, participants share their stories with the other members of their group. Listening to each other helps them empathise and acceptance of the other, as well as sharing their river of life helps them gain more self-insight and greater self-awareness.

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Model Question Paper Adikavi Nannaya University:: Rajahmundry Certificate Course on Counselling Skills Paper – IV: Counselling Skills and Techniques (With effect from 2020-21 A.Y.)

Time: 3Hrs

Max. Marks: 75

Section – A

4 X 15M = 60

Each question carries 15 marks.

1. What are the basic counselling skills? Explain.

OR

Discuss nature and goals of counselling.

2. Explain how listening responses effect the counselling session. OR

Discuss issues related communication barriers in counselling.

3. How can we Improve client's self-talk and self-perceptions.

OR

Explain the self monitoring skills acquired by the counsellor.

4. Explain Rogers model of counselling skills.

OR

What are the Indian models of Counselling Skills? Explain. Section – B 5 X 3M = 15

- 5. Answer any FIVE of the following
 - a) Development of helping relationship
 - b) Ethics in Counselling
 - c) Use of Silence

d) SOLER

- e) Inside and Outside Skills of Counselling
- f) Terminating Helping
- g) Detachment
- h) Self-Surrender





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Course - CCS-V-PSY:: Practicum

The main goal of field experience is to provide the student with the opportunity to engage actively in professional tasks that complement and reinforce classroom learning.

Field Practicum is intended to complement curricular objectives of the certificate programme and are closely integrated with classroom courses. Field experience provides for the acquisition of knowledge and skills in the process of supportive and developmental counselling. A series of field works seminars and skills workshops will be held towards the end of the course in order to orient and expose students to the various organizations they will be visiting.

Objectives of Field Practicum:

- 1. To acquaint students with the range of thematic issues and the range of interventions/settings of Counselling Practice.
- 2. Apply knowledge and skills gained through opportunities for direct intervention with diverse client groups. -Under the supervisions of tutors in skill lab settings.
- 3. To help students get a firstand experience of field realities and issues faced by marginalised group.
- 4. To develop initial skills of reporting and group discussion as part of the Field Practicum.

As part of the Field Practicum - EDUCATIONAL VISIT/ORGANIZATIONAL VISIT are organized to governmental/non-governmental agencies in urban and semi-rural areas. Organizations are identified thematically. Students will get an opportunity to hear about the agency and its work, and visit the work area if possible.

Following the visits, the students meet to discuss the visit in a group discussion that will be facilitated by the faculty who accompanied the group on the visit. Then the students are required to write individual reports and do group presentations.

The Objectives of the Educational Visit/s are:

- 1. To expose students to the social/voluntary sector and State Initiatives
- 2. To expose and sensitize students to the core issues of areas of interventions.
- 3. To acquaint students with the range of thematic issues and the range of interventions/settings of Counselling Practice.
- 4. To familiarize students with organizational structure, functions, staffing patterns, programmes and policies.

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- 5. To help students get a first-hand experience of field realities and issues faced by marginalised group.
- 6. To develop initial skills of reporting and group discussion as part of the Field Practicum.

ADIKAVI NANNAYA UNIVERSITY :: RAJAHMAHENDRAVARAM Syllabus (2020-21) ADIKAVI NANNAYA UNIVERSITY RAJAHMAHENDRAVARAM Syllabus for Mudlogging (PG Diploma – 1 year) (2020-21 AB onwards) Department of Geology University college of Science & Technology Adikavi Nannaya University Rajahmahendravaram - 533 296, A.P., PG DIPLOMA MUD LOGGING (20-21) Page 1 of 17

Minutes of Board of Studies in Geology Held on 21.12.20, at 4 PM Through on-line meeting

As the University Grants Commission has given permission to offer PG Diploma in Mudlogging under NSQF, the Board of studies in geology has been convened to prepare the course structure and syllabi.

Agenda:

Preparation of Syllabi for Mudlogging program

Members	
Prof. Y. Srinivasa Rao, Chairman	
Dr. KN Ratnam, Head of the Department	
Prof. KSN Reddy, Andhra University	_
Dr. K. Ratnakar, Nagarjuna Univ.,	
Sri PVV Satyanarayana, GM-Area Manager, ONGC (Representing Sri. Vadiraj, Forward Basin Manager)	
Dr. V. Balaram, former-CSIR Scientist, NGRI	
Dr. KV Swamy, AKNU	
Dr.KS Peter, AKNU	
Dr. G. Apparao, AKNU	
D. Teja, AKNU	

Resolutions:

- 1. After having detailed discussion, the committee has resolved and approved the proposed course structure and syllabi.
- 2. The regulations for examination and evaluation will be as PG Science program of the university
- 3. In the first semester, field work on geological mapping and report and second semester, institutional/industrial or case-study review based project work, report preparation and presentation will be conducted.

PG DIPLOMA

MUD LOGGING (20-21)



PG Diploma in MUD LOGGING

AIM OF THE COURSE

The course provides the students with the basic skills and techniques needed to analyse and interpret the mudlogging data in the hydrocarbon exploration and development activities.

Knowledge and understandings:	 Understanding the fundamentals and developments related to mudlogging as well as the related fields Demonstrate the influence of professional practices of mud logging studies on the community and the environment. Appreciate the principles and basics of quality control and its
Intellectual Skills:	 application in mud logging fields. Assessing and interpreting mud logging information - with the unavailability of some data - for solving problems related to hydrocarbons applications
	 Integrate information from a variety of scientific fields for problem solving. Learning scientific studies/reports in mud logging applications, considering the basics and ethics of scientific writing. Distinguish the improvement of performance through planning, risk
Professional Skills:	 assessment and decision making in the practices of mud logging. Application of advanced techniques and instrumentation in mudlogging problems. Preparation of technical reports related to different mud logging applications for preparation of his/her research articles.
General skills	 Application of tools and scientific resources effectively in different tasks related to mud logging applications. Effective Team-work participation according to the rules, indicators and ethics with in time limits and self learning

Board of Studies in Geology Adikavi Nannaya University Rajamahendravaram - 533296

PG DIPLOMA

MUD LOGGING (20-21)

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PG Diploma in MUD LOGGING

PROGRAM STRUCTURE

Sem	Paper no.	Paper Name	Theory /Lab	Hrs./ week	Credits	Max. Marks (Cont/ Internal Assessment)	Max. Marks University Exam	Total marks
			T/L/ F/P					
		Basics in Rocks study	Т	4	4	25	75	100
	1	Mineralogy and Petrology Lab	L	6	3	12	38	50
	2	Petroleum system	Т	4	4	25	75	100
I	2	Petroleum System lab	L	6	3	12	38	50
1	3	Exploration Methods	Т	4	4	25	75	100
		Exploration Methods Lab	L	6	3	12	38	50
	4	Field mapping & report preparation	F		10	0	200	200
	5	Wellsite geology	Т	4	4	25	75	100
	5	Wellsite Geology lab	L	6	3	12	38	50
	6	Mudlogging and Mud Engineering	Т	4	4	25	75	100
	0	Mud logging and Mud Engineering Lab	L	6	3	. 12	38	100 50 100 50 100 50 200 100 50
п	7	Formation Evaluation	F	4	4	25	75	100
ш		Formation Evaluation Lab	L	6	3	12	28	50
	8	Industrial/institutional/ Case-study based Project work, report submission and Presentation	Р		10	0	200	200
		Total			62		1300	10

T: Theory, L: Lab, F: Field report: F, P: Project/industrial training

 Student eligibility for joining in the course: MSc in Geology/Geophysics/Geosciences or B. Tech in Petroleum Engineering

2. Regulations for examination and evaluation are on par with PG Science programs.

Board of Studies in Geology Adikavi Nannaya University Rajamahendravaram - 533296

PG DIPLOMA

MUD LOGGING (20-21)

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MODEL QUESTION PAPER Adikavi Nannaya University:: Rajahmundry PG Diploma in Mudlogging Semester: Paper – ...: Title of the paper (With effect from 2020-21 A.Y.,)

Time: 3 hours

Max Marks: 75

Answer all the questions. Each question carries 15 marks $(4 \times 15M = 50M)$

SECTION - A

1. from Unit I (OR) 2. from Unit I

3. from Unit II (OR) 4. from Unit II

5. from Unit III (OR) 6. from Unit III

7. from Unit IV
 (OR)
 8. from Unit IV

SECTION - B

Each question carries 3 marks $(5 \times 3M = 15M)$ (Total 8 questions and at least TWO questions should be given from each unit)

9. Answer any 5 questions.

a. b. c. d. e. f. g.

h.

Chairman **Board of Studies in Geology**

Board of Studies in Geology Adikavi Nannaya University Rajamahendravaram - 533296

PG DIPLOMA

MUD LOGGING (20-21)

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PG Diploma in Mudlogging: I Semester (Effective from the Admitted Batch of 2020-21)

1.Basics in Rocks study

Unit-1: Definition of a mineral – Physical properties of minerals: Mohs scale of hardness – Structure and chemistry of Quartz, Feldspars, Mica Pyroxenes, Amphiboles, Garnet groups of minerals. Clay minerals.

Unit-2: Definition of Petrology – Differences among Igneous, Sedimentary and Metamorphic rocks. Origin and forms of Igneous rocks – textures – structures and classification of Igneous rocks. Types of Metamorphism – Textures and structures of Metamorphic rocks.

Unit-3: Origin and classification of sediment and sedimentary rocks ; Sedimentary textures - grain size scale, measurement, roundness, spherocity, shape and fabric; quantitative grain size analysis and interpretation;

Unit-4: Classification of conglomerates, sandstones, mudstones and carbonate rocks; Sedimentary structures - Mechanical, chemical and biogenic. Sedimentary depositional environments. Types of Porosity and permeability and its importance

Text books:

- 1. Physical Geology: G. Gorshkov, A. Yakushova.
- 2. The Principle of petrology: G.W. Tyrell.
- 3. Rutleys mineralogy: H. M. Read.
- 4. Boggs Sam Jr.m1995: Principles of Sedimentology and Stratigraphy, Prentice Hall.
- 5. Sengupta S., 1997: Introduction to Sedimentology. Oxford-IBH
- 6. An Introduction to the rock forming minerals by W.A.Deer, R.A. Howie and J. Zussman
- 7. Dana's Text book of Mineralogy by W.E. Ford
- 8. Manual of Mineralogy by Klein, C. and Hurlbut, Jr.C.S
- 9. Descriptive Mineralogy by L.G. Berry and Mason.

Mineralogy and Petrology Lab:

- Megascopic and microscopic identification of important silicate and non-silicate minerals.
- Megascopic and microscopic study of igneous rocks.
- Megascopic and microscopic study of metamorphic rocks.
- Grain size analysis of sediments and its classification using trilinear diagram
- Sieve analysis and pipette analysis
- Graphical representation of grain-size data & textural analysis
- Study of primary, secondary and biogenic sedimentary structures in hand specimens, of photographic atlases and field photographs/outcrops.

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PG DIPLOMA

MUD LOGGING (20-21)

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Model Question Paper Adikavi Nannaya University:: Rajahmundry PG Diploma in Mudlogging – I Semester Paper – I: Basics in Rock study (With effect from 2020-21 A.Y.,)

Time: 3Hrs

Section - A

Max. Marks: 75 4 X 15M = 60

Each question carries 15 marks.

1. Give a detail note on Felspar group of minerals?

(OR)

2. Discuss the Physical properties of minerals?

3. Write about the types of metamorphism?

(OR)

4. Explain the forms of igneous rocks?

5. Discuss the Grain size analysis?

(OR)

6. Explain the Sedimentary rock classification ?

7. Give a detail note on Sedimentary environments ?

(OR)

8. Write an essay on Classification of conglomerates ?

Section -B

5 X 3M = 15

Each question carries 3 mark

9. Answer any five of the following

a. Albite mineral physical properties

b. Quartz physical properties

c. Foliation

d. classification of sediment

e. Phacolith

f. Primary porosity

g. Limestone

h. Roundness

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MUD LOGGING (20-21)

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PG Diploma in Mudlogging: I Semester

(Effective from the Admitted Batch of 2020-21)

2. Petroleum system

Unit I: Definitions and Introduction to Petroleum system; History of Petroleum exploration and development; Physical and chemical properties of Petroleum; Occurrence of petroleum – pools, fields and provinces; Occurrence of Oil and gas in India and world; Source rocks and their Properties.

Unit II: Generation and migration of petroleum: Origin of petroleum, modern organic processes on earth surface - formation and maturation of kerogen, Diagenesis, Catagenesis, metagenesis - biogenic and thermal effect – paleo-thermometers - TTI concept

Unit III: Petroleum Migration and accumulation; Evaluation and analysis of kerogen and bitumen; Reservoir rocks - Properties, relationship between porosity, permeability and texture, effects of diagenesis on reservoir quality, reservoir continuity and characterization; Tilted OWC.

Unit IV: Traps and seals: Nomenclature of trap - distribution of petroleum in a trap, seals and cap rocks - classification of traps; cap rocks thickness vs. effectiveness; transgressive shales as cap rocks; Biomarkers source rock and oil correlation, oil and oil correlation using biomarkers. Petroleum reserves and estimation.

Petroleum system lab

- Study of cores
- Preparation of geological maps and sections, and derivation of geological history in relation to petroleum prospects;
- Calculation of oil and gas reserves; Exercises on maturation studies, source rocks and reservoir rocks
- Preparation of Stratigraphic cross sections, Development of stratigraphic panel (Fence) diagrams. Inter-tongueing diagrams.
- · Structure contour map, location of oil and gas.
- · Isopach and Isolith maps

Books recommended:

- 1. Elements of petroleum geology- RC. Selley, Stephen A. Sonnenberg Academic Press (2014)
- 2. Petroleum Geology- North, F.K, Allen Unwin.- 1985
- The Biomarker Guide (Vol.1 and 2) Peters, K.E., Walters, C.C., Moldowan, J.M. (2005): Cambridge Univ. Press.
- 4. Petroleum geochemistry and geology (2nd Ed.) Hunt, J.M. (1996) Freeman, San Francisco.

Reference books

- 1. Tissot, B.P. and Welte, D.H. (1984): Petroleum formation and occurrence, Springer-Verlag.
- 2. Ravi Bastia, Geologic settings and petroleum Systems of India' east coast offshore basinsconcepts and application.
- 3. Chandra, D. Singh, R.M and Sing M.P: 2000: Text book of Coal (Indian Context). Tara Book agency, Varanasi.
- 4. Kotur S. Narasimhan and A.K. Mukherjee; Gondwana coals of India; Allied publishers limited.
- 5. Applied Petroleum Geochemistry Bordenave, M.L. (Ed.) (1993): Editions Technip, Paris.
- 6. Surface Geochemistry in Petroleum Exploration S. A. Tedesco (1994), Springer-Verlag.

PG DIPLOMA

MUD LOGGING (20-21)





Model Question Paper Adikavi Nannaya University:: Rajahmundry PG Diploma in Mudlogging – I Semester Paper – II: Petroleum System (With effect from 2020-21 A.Y.,)

Time: 3Hrs

Section - A

Max. Marks: 75 4 X 15M = 60

Each question carries 15 marks. Answer four questions

1. Discuss the history and development of petroleum exploration ?

or

2. What are the types of source rocks? Give a note on their properties?

3. Give in detail about the maturation of kerogen?

or

4. Write a note on migration and accumulation of oil and gas?

5. Discuss the effects of diagenesis on reservoir rock quality and character ?

or

6. Describe the procedure for evaluation and analysis of kerogen ?

7. Write an essay on Trap rocks ?

or

8. Discuss the role of biomarkers in petroleum studies?

Section-B

5 X 3M = 15

Each question carries 3 marks.

9. Answer any five of the following

- a. Pool
- b. API
- c. Organic matter
- d. Kerogen
- e. Diagenesis
- f. Porosity
- g. Seal
- h. OWC

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PG Diploma in Mudlogging: I Semester

(Effective from the Admitted Batch of 2020-21)

9. Exploration methods

Unit -1 Geological Exploration: Geological criteria for hydrocarbons exploration. Methods of geological exploration. Field survey and mapping techniques - field equipment- methods of mapping geological map preparation - sampling pits and trenches -. Drilling and core logging. Preparation of technical report.

Unit-2 Electrical and Seismic methods: Geophysical exploration – principles of electrical resistivity and SP methods - interpretation – electrical logging methods in oil exploration. Seismic methods- refraction and reflection method- interpretation of seismic data- application-identification of geological structures-oil fields location- analysis of 3-D seismic data in oil exploration.

Unit-3 Magnetic and Gravity methods: Principles of Gravity and Magnetic methods – Corrections applied - field procedures – data processing and interpretation for hydrocarbon exploration. Principles of Remote sensing techniques and their applications in Hydrocarbon exploration

Unit-4 Geochemical & Radioactive methods: Geochemical prospecting- anomaly - background values- mobility of ions-associated elements - path finder elements like iodine - surface indicators - Gas – Geochemical application in hydrocarbon exploration. Radioactive method – Principles, methods, data analysis and interpretation. Applications in Hydrocarbon exploration.

REFERENCES:

- 1. Lahee, Field geology, CBS pub, New Delhi, 1987.
- 2. MB Dobrin, Geophysical prospecting, McGraw hill, New Delhi ,1981.
- 3. Mason, B., Introduction to geochemistry, John Wiley, USA, 1982.
- 4. Chaussier, J.B., and Mores, J Mineral Prospecting manual, North Oxford Academic press, 1987.
- Butler, B.C.M and Bell, J.D, interpretation of geological maps, Longman Scientific & technical Publ., 1st ED., New Delhi, 1988.
- 6. Principles of Geochemical prospecting Gillsberg
- 7. Exploration Geophysics for Geologists and engineers Bheemasnkaran and V K Gour
- 8. Geochemistry in Mineral Exploration Rose, Hawks and Webb
- 9. Introduction to Geophysical prospecting M B Dobrin
- 10. Manual of mineral exploration Mis publn No 33 GSI
- 11. Principles and practices in mineral exploration P K Ramam
- 12. Text book of Mineral exploration Evans
- 13. Method of Geophysical exploration T V ramachandra

EXPLORATION Methods Lab

Interpretation of field geophysical data – gravity, magnetic, Electrical and seismic in deciphering ground water, mineralized zone and construction site evaluation

PG Diploma in Mudlogging: I Semester

(Effective from the Admitted Batch of 2020-21)

4. Field mapping and Report preparation

The student has to do geological mapping selecting an area of study and submit a field report by preparing various maps and interpretation.

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Model Question Paper Adikavi Nannaya University, Rajahmundry PG Diploma in Hydrocarbons/Mud Logging, I Semester Paper – III: Exploration methods (Effective from the Admitted Batch of 2020-21)

Time: 3Hrs Max.

Marks: 75

15 X 4 = 60

Section – A Each question carries 15 marks.

Answer four questions, choosing ONE from each Unit

1. Write in detail on geological parameters for mapping of hydrocarbon prospecting.

(OR)

- 2. Write an essay on coring, its types and handling procedures.
- 3. Write an essay role of Seismic survey in identification of oil & Gas.

(OR)

 Explain the principle, procedures for Resistivity, Induced polarization and Selfpotential methods.

5. Write an essay on concepts and magnetic surveying instruments.

(OR)

6. What is remote sensing, describe role of remote sensing hydrocarbon exploration.

7. Write an essay on geochemical prospecting and analytical methods.

(OR)

8. Write an essay on radioactive data analysis and interpretation.

Section –B Each question carries 3 marks 5 X 3 = 15

9. Answer any five of the following,

a. Sampling pit & trenches

- b. Base map
- d. Geophone
- e. Proton magnetometer g. Pathfinder elements

c. Reflection & refraction

h. Radioactive decay

f. Passive sensors & Active sensors

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PG Diploma in Mudlogging: II Semester

(Effective from the Admitted Batch of 2020-21)

5.Well site Geology

Unit 1: Exploration strategy and well prognosis: sequence of search and exploration work, prognostication, classification and categorization of reserves, classification of drilling locations, economic analysis of an exploratory project – Duties and responsibilities of wellsite geologist: rig site information, wellsite materials and pre-well responsibilities - Well-program or Geo-technical order.

Unit 2: Drilling methods: cable tool, rotary, dyna, directional, pellet impact, simultaneous drilling methods and offshore drilling technology - Drilling fluids: function of drilling fluid, composition of drilling fluid, basic classification of drilling fluids, complications and important equations

Unit 3: Cuttings and its analysis: cuttings description and preparation of lithology, sample types and its shipping, cutting analysis - coring and core analysis: conventional and sidewall coring, core point selection, coring procedure, core retrieval and core packing, core analysis – lithology/striplog preparation, preparation and drafting of lithology, interpretation of lithology. **Unit 4:** Casing and cementing: types of casing, casing accessories, running casing string, casing and cementation plan, cementing, annular leakages, channeling causes and preventive methods, use of centralizers, scratchers and turbulators - Factors influencing well completion methods, different methods of completion, perforation, well testing, workover programmes, well abandonment.

Wellsite geology Lab

- 1. Preparation of GTO
- 2. Well construction and design, Plotting of lithology and drilling time (litholog),
- 3. Calculation of lag time,
- 4. Study of drill cutting samples, conventional cores and side wall cores for lithology,
- 5. Plotting of inclinometer data and computation of vertical shortening and horizontal drift,
- 6. Identification of pay horizons through well site geological analysis,
- 7. Calculation of cement slurry volumes,
- 8. Determination of porosity of a sediment core sample

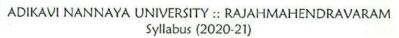
Text Books:

- 1. Formation evaluation and wellsite geological techniques, Bhagwan sahay, awadhesh rai and manoj kumar ghosh 1983, ONGC publication.
- 2. Wellsite geologist's handbook, Donald McPhater 1983, Pennwell corporation, 80pp.
- The wellsite guide an introduction to geological wellsite operations, Bernhard W. seubert, 1995, published on-lie PT petroPEP Nusantara.(https://www.petropep.com/ download_1_html_files / The%20Wellsite%20Guide_new.pdf)

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Model Question Paper Adikavi Nannaya University:: Rajahmundry PG Diploma in Mudlogging – II Semester Paper – 5: Well site Geology (With effect from 2020-21 A.Y.,)

Time: 3Hrs

Max. Marks: 75

Section – A $4 \times 15M = 60$

Each question carries 15 marks. Answer ANY four questions

1. Discuss about the exploration strategies and economic analysis of an exploratory project?

or

2. Give a note on duties and responsibilities of wellsite geologist ?

3. Describe various methods of drilling methods in off shore?

or

4. Write a note on functions of drilling fluids and its basic classifications?

5. Describe the well cuttings and its analysis ?

ог

6. Discuss various types of coring and coring procedure ?

7. Write in detail about the casing types, accessories and casing plans ?

or

8. Describe various methods of well completion ?

Section -B

5 X 3M = 15

Each question carries 3 marks

9. Answer any five of the following

- a. Categorization of reserves
- b. Pre-well responsibilities
- c. Pellet impact
- d. Complications in drilling fluids
- e. Cuttings description for igneous rocks
- f. Core packing
- g. Channeling causes

h. Well testing

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PG Diploma in Mudlogging: II Semester (With effect from the Admitted Batch of 2020-21) 6. Mudlogging & Mud Engineering

Unit-1: Objectives and duties of Mud Logger: Mud-logging unit, users, personnel and their duties. Use of Mud logging for safety, efficiency and formation evaluation, outputs from ML unit. Rig up and rig down. Lag Time: Lag time and lag strokes, onshore and offshore differences, Lag time calculation and verification. Mud-logging Sensors: Data acquisition, Mud logging parameters, placement of sensors, principles of sensors as Depth, WHO, SPP, SPM, Torque, Flow out, Pit level, RPM, WHP, Mud resistivity, Mud weight, H2S, HC Gas acquisition. Maintenance and calibration of equipment. Chart Interpretation and Monitoring: Instantaneous and lagged parameters, data presentation, monitoring drilling logging, interpretation of events from charts as tripping, circulation, drilling, kick, check of lag time, gas chart etc.

Unit-2: Sample collection: Different type of samples and methods of collection. Cutting Sample description: Type of samples, collection and packing of samples, Cutting description, fluorescence and cut. Calcimeter, flurometer. Coring: Conventional and other coring methods, cleaning of core, marking andpacking, transportation and storage of cores. Properties studied from cores, Preparation of core log.

Unit-3: Master Log & Well Report: Scales of log, plotting of different parameters, interpretative lithology, abbreviations, Descriptions and remarks. Hydrocarbon Gas: Physical properties of gas, terminology, coal gas, hydrates, porosity permeability and gas, terms for recorded as BG, TG, CG, peak gas. degasser, and gas-detection system, inferences from recorded gas, gas diagrams and ratios. Subsurface Pressures: Hydrostatic pressure, normal and over pressure, overburden, causes of overpressure, detection of over pressure, pressure log, kick indicators.

Unit-4: Mud Engineering: Fundamentals of Fluid flow (Fluid flow, viscosity), Types & Flow (Laminar, Turbulent). Criteria for the type of flow. Types of Fluids (Newtonian &Non-Newtonian), Viscometers. Mud Engineering: Functions of Drilling Mud, Types of Drilling muds (Water-base & Oil base) & their Chemical Additives. Mud Properties: Mud Weight, Rheological Properties, pH, Filtrate and filter cake. Mud Contaminants: NaCl, Anhydrite, Gypsum, and Cement. Conditioning equipment: Shale shaker, sand trap, degasser, de-sander and desilter. Under balanced Drilling: Equipment and process. Basics of Electronics and trouble-shooting for mudlogging sensors.

Mud logging and engineering Lab

- 1. Calculation of Pressure gradient using mud weight.
- 2. Hydrostatic Pressure calculations using mud weight and depth.
- Conversions: Pressure into mud weight, specific gravity to mud weight, specific gravity to pressure gradient.
- 4. Hydrostatic Pressure calculations- while pulling wet and dry pipe out of hole.
- 5. Surge and Swab pressures during tripping.
- 6. Lag Time Calculation
- 7. Pit Gain calculations.
- 8. Calculations related to Drilling Fluids
- 9. Increased mud density/ reduce mud density. Mud weight calculation
- 10. Problems related to Mixing of fluids different densities.
- 11.Oil based mud calculations.
- 12.Oil/Water ratio calculations.
- 13. Uses of Computer in Mud logging& Mud Engineering.

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Model Question Paper Adikavi Nannaya University, Rajahmundry PG Diploma in Mud Logging, II Semester Paper – 6: Mud-logging & Mud Engineering (Effective from the Admitted Batch of 2020-21)

Time: 3Hrs Max.

Marks: 75

 $15 \ge 4 = 60$

Section – A Each question carries 15 marks.

Answer four questions, choosing ONE from each Unit

1. Define Mud logging, describe in detail about mud logging parameters.

(OR)

2. Write an essay on well-site operations, Kick detection parameters.

3. Write an essay on coring procedures and practices.

(OR)

4. Write an essay on drill cutting evaluation.

 Write an essay on various types of gases encounter during drilling and its detection System. (OR)

6. Define over pressure; describe the indicators and prevention of overpressure during drilling.

7. Write an essay on mud rheology.

(OR)

8. Write an essay on different types of pressures, causes of over pressures.

Section –B Each question carries 3 marks

9. Answer any five of the following,

- a. Lag time
- c. Calcimeter
- e. Hydrostatic pressure

g. Types of drilling muds.

b. H₂S

- d. Properties studied from cores
- f. Connection Gas & recycled gas.
- h. Multimeter

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5 X 3 = 15



PG Diploma in Mudlogging: II Semester (Effective from the Admitted Batch of 2020-21)

7. Formation evaluation

UNIT-1: Petrophysical parameters – porosity - water saturation – permeability - formation factor - formation temperatures - resistivity index - formation factor porosity relationships; Borehole environment – distribution of resistivities around the borehole; Data acquisition - surface equipment – down hole equipment – tools – sensors – detector – signals; Open hole and cased hole operations - logging while drilling (LWD).

UNIT-2: Electrical logging: SP log, resistivity logging, conventional systems, focused systems, normal, lateral, laterolog, micro-logging devices, induction log; Porosity logs: Acoustic logging, bore hole compensation; Radioactive logging – Neutron & Density loggings, Gamma ray and Natural Gamma Ray Spectroscopy logs (NGS); Miscellaneous logs: dipmeter, Carbon-Oxygen logging, pulsed neutron log, cement bond and variable density log, NMR log.

UNIT-3: Determination of porosity from resistivity and non-resistivity porosity tools, density, neutron-sonic logs, lithology and porosity from cross-plots, determination of fluid saturation from resistivity porosity cross plots, permeability from logs, Quick look interpretation, identification of clean, shaly and hydrocarbon bearing zones, minerals, Complex reservoir and fractured reservoir interpretation, formation fluid sampling, MDT, RFT, sidewall casing.

UNIT-4: Production logging – fundamentals of production logging – applications – temperature, pressure, and radioactive tracer- applications; well completion techniques, perforation and tools for perforation; Applications of formation evaluation.

Formation Evaluation lab

- 1. Use of Porosity-Resistivity plots for estimation of water saturation.
- 2. Estimation of HC saturation using Archie's equation.
- 3. Estimation of Formation water salinity from SP log.
- 4. Use of Density-Neutron cross plots for lithology and porosity identification.
- 5. Shaly sand interpretation using cut offs for estimation of pay thickness (phi, S_w , V_{sh}).

6. Identification of fluids and contributing layers from flow meter and temperature logs.

Text Books

- 1. Formation evaluation by Edward J. Lynch
- 2. Fundamentals of well log interpretation the acquisition of well log data by O. Serra, Elsevier Science Publishing company, Inc., New York.

Reference books:

1. Log interpretation principles/Applications, Schlumberger educational services, Texas, USA.

PG Diploma in Mudlogging: II Semester (Effective from the Admitted Batch of 2020-21)

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8. Institutional/Industrial/ case study review based project work

The student has to do a project either at institutional/institutional or case-study review, project report submission and presentation.

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Model Question Paper Adikavi Nannaya University:: Rajahmundry PG Diploma in Mudlogging – II Semester Paper – 7: Formation Evaluation (With effect from 2020-21 A.Y.,)

Time: 3Hrs

Section - A

Max. Marks: 75

4 X 15M = 60

Each question carries 15 marks. Answer four questions, choosing ONE from each Unit.

- 1. Discuss about the petrophysical parameters ?
- or 2. Explain the openhole and cased hole operations and LWD ?
- 3. Describe briefly SP LOG ? or
- 4. Give a note on nuclear logging?
- 5. Explain various methods of determination of porosity from resistivity and non-resistivity tools ?
- 6. Discuss Quick look interpretation?
- 7. Write about Production logging and also discuss the temperature log ? or
- 8. Explain the logging and evaluation of coal bed methane ?

or

Section –B

$3 \times 5M = 15$

Each question carries 3 marks

- 9. Answer any five of the following
 - a. Downhole equipment
 - b. Formation factor
 - c. Acoustic logging
 - d. Induction log
 - e. Applications of gramme ray log
 - f. Radio-active tracer
 - g. Resistivity index
 - h. Dip meter

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Adikavi Nannaya University:: Rajamahendravaram Department of Psychology Certificate Course on Counselling Skills Syllabus (w.e.f 2016-17)

Unit – 1 Fundamental Counselling Skills

The Client-Counsellor Relationship: The Counsellor as a Role Model, The Counsellor's Needs, Counsellor Objectivity/Subjectivity, Emotional Involvement, Counselor Limits in Practice.

Unit – 2 Counselling Skills

Basic Counselling Skills: Observation Skills, Questioning, Communication Skills (Listening, Feedback, Non-Verbal), Making Notes and Reflections.

The Counselling Interview: History Taking, Interviewing (Characteristics, Types, Techniques). Developing Case Histories: Collecting, Documenting Information, Working with Other Professionals

Unit – 3 Ethics In Counselling

Need for Ethical Standards; Ethical Codes and Guidelines - Rights of Clients, Dimensions of Confidentiality; Dual Relationships in Counselling Practices; The Counsellor's Ethical and Legal Responsibilities; Ethical Issues in the Assessment Process.

Unit - 4 Counselling Special Groups

Characteristics and Needs of Special Groups - Socially and Economically Disadvantaged, Destitutes and Orphans, Delinquents, Drop-outs, Aids Patients, Drug Addicts and Alcoholics, Pedophiles, Homosexuals. Identifying Support Networks; Referral Processes

Unit - 5 Abuse Counselling

Definition, Types of Abuse; Causal Theories of Abuse; Effects of Abuse; Statutory Requirements; Implications for Counselors; Support Networks and Referral Processes.

Suggested Readings:

- 1. Martin, D. (2016). Counseling and therapy skills (4th ed.). Long Grove, IL: Waveland Press.
- 2. American Psychological Association (2011). Publication manual of the American Psychological Association (6th Ed.). Washington, D.C.: American Psychological Association.
- 3. Belkin, G. S. (1998). Introduction to Counselling (3rd Ed.) Iowa: W. C. Brown.
- 4. Capuzzi, D. & Gross, D. R. (2007). Counselling and Psychotherapy: Theories and Interventions (4th Ed.) New Delhi. Pearson.
- 5. Corey, G. (2009) Counselling and Psychotherapy; Theory and Practice.(7th Ed.) New Delhi: Cengage Learning.



Certificate Course on Communication Skills ASPECTS OF COMMUNICATION

Unit-1: Communication: An Introduction

- Definition, Nature and Scope of Communication
- Importance and Purpose of Communication
- Process of Communication
- Types of Communication

Unit-2: Non-Verbal Communication

- Personal Appearance
- Gestures Postures
- Facial Expression
- Eye Contacts
- Body Language(Kinesics)
- Tips for Improving Non-Verbal Communication

Unit-3: Effective Communication

- Essentials of Effective Communication
- Communication Techniques
- Barriers to Communication

Unit-4: Communication in English

- Age of Globalization and the Need for Communicating in English
- English as the First or Second language
- Uses of English in academic and non-academic situations in India

Unit-5: Listening Skills-I

- Purpose of Listening
- Listening to Conversation (Formal and Informal)
- Active Listening- an Effective Listening Skill
- Benefits of Effective Listening
- Barriers to Listening
- Listening to Announcements- (railway/ bus stations/ airport /sports announcement/ commentaries etc.)

Unit-6: Oral Communication Skills (Speaking Skills)-I

- Importance of Spoken English
- Status of Spoken English in India
- International Phonetic Alphabet(IPA) Symbols
- Spelling and Pronunciation

Unit-7: Oral Communication Skills-II

- Giving instructions
- Seeking and giving permission
- Expressing opinions(likes and dislikes)
- Agreeing and disagreeing
- Demanding explanations
- Asking for and giving advice and suggestions
- Expressing sympathy

Unit-8: Reading Skills

- Purpose, Process, Methodologies
- Skimming and Scanning
- Levels of Reading
- Reading Comprehension
- Academic Reading Tips

Suggested Readings:

- 1. Sethi, J & et al. A Practice Course in English Pronunciation, Prentice Hall of India, New Delhi.
- 2. Sen, Leena. Communication Skills, Prentice Hall of India, New Delhi.
- 3. Prasad, P. Communication Skills, S.K. Kataria & Sons.
- 4. Bansal, R.K. and J.B. Harrison. Spoken English, Orient Language.
- 5. Roach Peter. English Phonetics and Phonology.
- 6. A.S. Hornby's. Oxford Advanced Learners Dictionary of Current English, 7th Edition.