



P.K.R. ARTS COLLEGE FOR WOMEN

Accredited with 'A' Grade by NAAC
Autonomous Institution– Affiliated to Bharathiar University
Gobichettipalayam

VALUE ADDED COURSES

2020-2021

BROCHURE



P.K.R. Arts College for Women, an autonomous college affiliated to Bharathiar University is an unaided college of Arts & Science. It was established with a vision to empower rural women and is managed by Dhandapani Rural Charitable Trust since 1994. The college is located in a beautiful locale, surrounded by hillocks and green fields providing a serene and pleasant atmosphere for learning. The college is dedicated to the everlasting memory of late Thiru.Kalimudhaliar, who had a noble vision of educating the masses. Unfortunately, he was not able to realize his dream during his life time and the responsibility was bestowed on his grandson, late Thiru P.R. Natarajan, founder correspondent of this college. Inspired by his grandfather's ideals, he dedicated his life to enlighten the rural women by starting a women's college in the name of his father Late Thiru.P.K. Ramasamy and this college emerged as P.K.R. Arts College for Women. The ideal of women empowerment was the guiding spirit of our founder correspondent, which elevated the college to an enviable position within a very short span of time. His sudden demise has left a void and his name would be inscribed in the annals of our college.

Thiru P.R.Viswanathan, the younger brother of Thiru.P.R. Natarajan, assumed the office of the correspondent from the year 2007, and he is determined to emulate his brother and took the college forward. Later, the office of the Correspondent cum Secretary was assumed by Thiru. P.N.Venkatachalam the younger son of the founder correspondent, on 23rd January, 2012. The college is recognized by the university grants commission under sections 2(f) and 12(B) of the UGC Act. Further, the UGC has given autonomous status to the college on 6th April 2017. The management's tireless efforts have resulted in getting affiliation for more number of new courses every year. With strenuous efforts and progressive results, the college is now offering 12 UG, 8 PG, 7 Research programmes and 2 UGC sponsored add-on courses in Functional English. There are 7 departments with 104 teaching staff members for 2161 students resulting in a healthy teacher–student ratio of 1:21. With the motto of education, enlightenment, service and discipline, the college works to bring a new dimension to the concept of higher education.

VALUE ADDED COURSES 2020 - 2021

Our college is offering value added courses for all the students intended to provide additional learner centric graded skill oriented technical training. The courses enhance the ability of students in their respective domains and progress in communication.

Objectives

Objectives of providing value added courses are to

- Gain knowledge from the subject experts
- Meet the expectations of industry
- Improve the employability skills of the students

Courses Structure

- ✓ Industry experts / eminent academicians from other Institutes/ Subject Experts from the respective departments teach the value added course
- ✓ The registration for the courses will be done at the beginning of academic year
- ✓ The duration of each course is 40 hours of Theory / Practical / Both

Expected Outcomes

Students will be able to

- Demonstrate their technical and communication skills
- Apply the novel technologies in their respective fields
- ✓ Face the challenges in the current industry scenario

Evaluation & Result


Evaluation of value added courses shall be carried out annually for 100 marks. Students will be given certificates with the grades based on the marks scored in the Examination.

90 - 100 - A++ Outstanding 80 – 89 - A+ Excellent 70 – 79 - A Very Good
60 - 69 - B+ Good 50 – 59 - B Average 40 – 49 - C Satisfactory



**ACADEMIC YEAR
2020-2021**

**LIST OF COURSES
&
SYLLABUS**



Courses offered in the Academic Year 2020-2021

DEPARTMENT	COURSE CODE	COURSE NAME
TAMIL	20TAUVA2	இதழியல்
	19GPUVA1	Professional English for Arts and Social Science
	18TAUVA1	கல்வெட்டியல்
	20TAPVA02	தமிழ் மின்னூல் உள்ளடக்கம்
	19TAPVA01	வகைமை நோக்கில் தமிழ் இலக்கிய வரலாறு
ENGLISH	20ENUVA2	Conversational English
	19GPUVA1	Professional English for Arts and Social Science
	18ENUVA1	Introduction to Translation
	20ENPVA02	Professional English
	19ENPVA01	Introduction to Copy Editing
MATHEMATICS	20MAUVA2	Vedic Mathematics
	19GPUVA2	Professional English for Physical Sciences
	18MAUVA1	Numerical Aptitude
	20MAPVA02	Mathematics for Competitive Examinations
	19MAPVA01	Typesetting in Latex
PHYSICS	20PHUVA2	Crystal Physics
	19GPUVA2	Professional English for Physical Sciences
	18PHUVA1	Problem Solving in Physics for Competitive Exams
	20PHPVA02	Material Science
	19PHPVA01	Problem Solving for NET/SLET Exams
COMPUTER SCIENCE	20CSUVA2/20CAUVA2/ 19CSUVA2/19CAUVA2/ 19ITUVA2	Computer Hardware Basics and Trouble Shooting
	19GPUVA2	Microsoft Excel- Basics to Advanced
	19GPUVA2	Professional English for Physical Sciences
	18CSUVA1/18CAUVA1/ 18ITUVA1	Complete SQL and Database Bootcamp
	20CAPVA02	Networking
COMMERCE	20CGUVA2/20CCUVA2/ 20CPUVA2	Intelligence for Excellence
	19GPUVA3	Professional English for Commerce and Management
	19CGUVA2/19CCUVA2/ 19CPUVA2	Practical Psychology
	18CGUVA1/18CCUVA1/ 18CPUVA1	Tally with GST
	20CGPVA02	Introduction to Digital Marketing
	19CGPVA01	Preparatory Course for NET / SET Examination
MANAGEMENT	20BAUVA2	Life Skills for Youth
	19GPUVA3	Professional English for Commerce and Management
	18BAUVA1	Wealth Management
	20BAPVA02	Office Automation
	19BAPVA01	Internet of Things

DEPARTMENT OF TAMIL

COURSES

- தழியல்
- **Professional English for Arts and Social Science**
- கல்வெட்டியல்
- தமிழ் மின்னூல் உள்ளடக்கம்
- வகைமை நோக்கில் தமிழ் இலக்கிய வரலாறு

இதழியல்

அலகு - 1

இந்திய இதழ்களின் தோற்றமும் வளர்ச்சியும் - தமிழ் இதழ்களின் தோற்றமும் வளர்ச்சியும் - இதழ் வகைகள்

அலகு - 2

செய்தித்தாள் நிர்வாக அமைப்பு - இதழ்களின் இன்றியமையா பகுதிகள் - செய்தி நிறுவனங்கள்

அலகு - 3

இதழியல் சட்டங்கள் - இதழ்களும் விளம்பரங்களும் - இதழ்களும் சமுதாயமும்

அலகு - 4

சிறுபத்திரிகைகளின் வாழ்வும் வரலாறும் - மொழிவளர்ச்சியில் இதழியலின் பங்கு

அலகு - 5

பண்பாட்டு வளர்ச்சியிற் இதழியலின் பங்கு - படைப்பிலக்கிய வளர்ச்சியில் இதழியலின் பங்கு

பாடநூல்

1. இதழியல், டாக்டர் சு.சக்திவேல், மணிவாசகர் பதிப்பகம், 31,சிங்கர் தெரு,பாரிமுனை, சென்னை-600108,மு.ப:2008

பார்வைநூல்கள்

1. இதழியல், முனைவர் ச.ஈஸ்வரன், முனைவர் இரா.சபாபதி, பாவைப்பளிகேஷன்ஸ், இராயப்பேட்டை, சென்னை- 600014, ஆறாம் பதிப்பு: 2014.
2. தமிழ் இதழியல் வரலாறு, எம்.ஆர்.ரகுநாதன், ஸ்ரீ செண்பகா பதிப்பகம், பாண்டிபுஜார், சென்னை- 600017, மு.ப:2008

Professional English For Arts & Socialscience

LEARNING OUTCOMES:

- Recognise their own ability to improve theircompetence in using the language
- Use language for speaking with confidence in an intelligible and acceptable manner
- Understand the importance of reading for life
- Independent reading and comprehension of unfamiliar texts.
- Understand the importance of writing in academic life
- Writingsimple sentences without committing error in spelling or grammar

(Outcomes based on guidelines in UGC LOCF–Generic Elective)

UNIT 1: COMMUNICATION

1. Listening: Listening to instructions

2. Speaking: Telephone etiquette and official phone conversations

3. Reading: Short passages (3 passages, one from each–History, Sociology/Social Work/ Psychology, English&Tamil Literature)

5. Writing: Letters and Emails in professional context

6. Grammar in Context:

- Wh and Yes/No questions
- Question tags
- Imperatives

7. Vocabulary: Word formation

i) Creating antonyms using Prefixes

ii) Intensifying prefixes (E. g inflammable)

iii) Changing words using suffixes

A) Noun Endings

B) Adjective Endings

C) Verb Endings

UNIT 2: DESCRIPTION

Listening: Listening to process description

Speaking: Role play

Formal:

- With faculty and mentors in academic environment
- Workplace communication

Informal:

- With peers in academic environment
- Workplace communication

Reading:

Reading passages on social issues, psychological well-being, literary achievements/contributions

Writing: Writing sentence definitions (e.g. monarchy) and extended definitions (e.g. government)

Picture Description—E.g. Description of natural calamities and their impact on people. (100 words)

Grammar in Context: Connectives and linkers.

Vocabulary: Synonyms (register)

Compare & contrast expressions

UNIT 3: NEGOTIATION STRATEGIES

Listening: Listening to interviews of specialists / inventors in fields (Subject specific)

Speaking: Brainstorming (mind mapping). Small group discussions (subject-specific)

Reading: Longer Reading text (Comprehensive passages)

Writing: Essay Writing (250 word essay on topics related to subject area like education of the girl child, book reviews, adolescence and youth)

Grammar in Context:

- Active voice & Passive voice
- If conditionals

Vocabulary: Collocations—Phrasal verbs

UNIT 4: PRESENTATION SKILLS

Listening: Listening to presentations, listening to lectures, watching documentaries (discovery / history channel videos with subtitles)

Speaking: Short speech Making formal presentations (PPT)

Reading: Reading a written speech by eminent personalities in the relevant field / short poems / short biography.

Writing: Writing Recommendations

Interpreting visuals-charts / tables/flow diagrams/charts

Grammar in Context: Modals

Vocabulary: Single word substitution (register)

UNIT 5: CRITICAL THINKING SKILLS

Listening-Listening to advertisements/news and brief documentary films (with subtitles)

Speaking-Problem-Solution Speeches (Brief speeches). E.g. Should the use of public transport be promoted to curb pollution?

Reading: Motivational stories on Professional Competence, Professional Ethics and Life Skills (subject-specific) Writing Studying problem and finding solutions (Essay in 200 words)

Grammar: Framing simple sentences

Vocabulary: Fixed expressions

கல்வெட்டியல்

அலகு - 1

வரலாற்று உருவாக்கத்தில் கல்வெட்டுக்களின் பங்கு - கல்வெட்டுக்கள் எழுதும் முறை - இந்திய கல்வெட்டுக்களில் காணும் மொழிகள் - கல்வெட்டுக்களின் தன்மை

அலகு - 2

அசோகர் கல்வெட்டுக்கள் - தமிழகக் கல்வெட்டுக்களின் பொதுத்தன்மை - இந்தியக் கல்வெட்டாய்வின் வரலாறு - தென்னிந்திய கல்வெட்டாய்வின் தோற்றமும் வளர்ச்சியும்

அலகு - 3

கல்வெட்டுக்களில் காலகணிப்பு - எழுத்துக்களின் தோற்றம் - சிந்துவெளி எழுத்துக்கள் - பிராமி

அலகு - 4

கரோஷ்டி - குறியீடுகள் - தமிழ்பிராமி

அலகு - 5

வட்டெழுத்து - கிரந்த எழுத்து - தமிழ் எழுத்துக்கள்

பாடநூல்

1. கல்வெட்டியல் -கா.ராஜன், மனோபதிப்பகம், தஞ்சாவூர் 2006

பார்வைநூல்கள்

1. தொல்லியல் - முனைவர் தி.மனோன்மணி, முனைவர் தி.செல்வநாயகி, நியூசெஞ்சுரி புக்ஹவுஸ், அம்பத்தூர், சென்னை 2010, தொல்லியல் - கோ.சுந்தர்(மொ.பெ.ஆ) அடையாளம் பதிப்பகம், 2007

தமிழ் மின்னூல் உள்ளடக்கம்

அலகு 1

1. தமிழ் எழுத்துருக்கள் (வ்யஅடை குழுவெள)
2. தமிழ் எழுதுமென்பொருள்கள் (வ்யஅடை வுலிநறசவைபெ ளழகவறயசந)
3. தமிழ்த்தட்டச்சு முறைகள் (வ்யஅடை வுலிபெ ஐளெவசரஉவழை)
4. ஒருங்குறி எழுத்துருக்கள் (ருளைமுனந வ்யஅடை கழுவெள)
5. ஒருங்குறி எழுத்துரு மாற்றிகள் (ருளைமுனந வ்யஅடை கழுவெ உழளெநசவநச)
6. தமிழ் மொழிபெயர்ப்பு (வ்யஅடை வுசயளெடயவழை வுநஉஅவைநரள)
7. பிறை திருத்த மென்பொருள்கள் (ளிநடட உாநஉமநச வ்யஅடை)
8. ஒளி எழுத்துணரி (ழிவடையட உாயசயஉவநச சநஉழபணெநச)

அலகு 2

1. வலைப்பதிவு அறிமுகம் (டீழப ஐவெசழனரஉவழை)
2. வலைப்பதிவு உருவாக்கம் (டீழப உசநயவழை)
3. வலைப்பதிவின் உள்ளடக்கங்கள் (டீழப உழவெநவெள)
4. வலைப்பதிவின் வகைகள் (டீழப வுலிநள)
5. வலைப்பதிவுத் திரட்டிகள் (டீழப யபபசநயவழசள)

அலகு 3

1. விக்கிப்பீடியா ([ரவவிள:ஃஃவயறமைநனயைபழசப](#))
2. விக்கி நூல்கள் ([ரவவிள:ஃஃவயறமைவழிழமளபழசப](#))
3. விக்கி மேற்கோள்கள் ([ரவவிள:ஃஃவயறமைநைநரழவநழசப](#))
4. விக்கிசனரி ([ரவவிள:ஃஃவயறமை உவழையெசலழசப](#))
5. விக்கி பொதுவகம் ([ரவவிள:ஃஃஉழஅழளெறமைஅநனயைபழசப](#))
6. விக்கிமூலம் ([ரவவிள:ஃஃவயறமைளைழரசஉநழசப](#))

அலகு 4

1. தமிழ் மின்னூலகங்கள்
2. தமிழ் மின்னூல்கள் (வ்யஅடை நு - டீழமள)
3. தமிழ் மின்னூல்கள் வெளியிடும் முறைகள் (ஆநவாழனள ழக ரீடிடளைபை வ்யஅடை நு - டீழமள)
4. குறுஞ்செயலிகள் உருவாக்கம்
5. தமிழ் ஒலி நூல்கள் உருவாக்கும் முறைகள் (ஆநவாழனள ழக ஆயமபை வ்யஅடையரனழை டீழமள)
6. தமிழ் யூடியூப் அலைவரிசை உருவாக்கம் (லழரவரடிந உாயநெட உசநயவழை)
7. காணொளி திருத்த மென்பொருள்கள்

அலகு 5

1. அச்சுக்கலை வேர்டு (பேஜ்மேக்கர், இன்டிசைன், போட்டோசாப்)
2. ஆட்சென்ஸ் - (வலைப்பதிவு, யூடியூப், முகநூல், குறுஞ்செய்திகள், மின்னூல்)

வகைமை நோக்கில் தமிழ் இலக்கிய வரலாறு

அலகு 1

உயர்தனிச் செம்மொழி - முச்சங்கங்கள் -சங்ககாலத்து இலக்கண நூல்கள் - தொல்காப்பியம் - எட்டுத்தொகை நூல்கள் - பத்துப்பாட்டு - சங்க இலக்கிய மேன்மைகள் - பதினெண்கழகீழ்க்கணக்கு - பிற நூல்கள் - ஐம்பெரும்காப்பியங்கள் -ஐஞ்சிறுகாப்பியங்கள் - முத்தொள்ளாயிரம் .

அலகு - 2

பெருங்கதை - கம்பராமாயணம் -ராமாயண நூல்கள் -தொன்ம இலக்கியங்கள் -பாரத இலக்கியங்கள் - பௌத்தத்தின் தமிழ்ப்பணி - சமணத்தின் தமிழ்ப்பணி - சைவத்தின்

தமிழ்ப்பணி –வைணவத்தின் தமிழ்ப்பணி –கிறித்துவத்தின் தமிழ்ப்பணி -இசுலாமியத்தின் தமிழ்ப்பணி –பிற்காலக் காப்பியங்கள் - இலக்கண நூல்கள் .

அலகு - 3

சிற்றிலக்கியத் தோற்றமும் வளர்ச்சியும் - நிகண்டு தோற்றமும் வளர்ச்சியும் - அகராதித் தோற்றமும் வளர்ச்சியும் -உரைநடைத் தோற்றமும் வளர்ச்சியும் - இசைத்தமிழ் தோற்றமும் வளர்ச்சியும் -நாடகம் தோற்றமும் வளர்ச்சியும் -சிறுகதைத் தோற்றமும் வளர்ச்சியும் -புதினத்தின் தோற்றமும் வளர்ச்சியும் -புதுக்கவிதை தோற்றமும் வளர்ச்சியும் -ஹைக்கூ கவிதை தோற்றமும் வளர்ச்சியும்.

அலகு - 4

சித்தர் இலக்கியங்கள் - பதிப்பாசிரியர்கள் - உரையாசிரியர்கள் - தொல்லியல் துறைகள் -நாட்டுப்புறவியல் - பயண இலக்கியங்கள் -வாழ்க்கை வரலாற்று இலக்கியங்கள் -கடித இலக்கியங்கள் - ஒப்பிலக்கியம் - ஒப்பிலக்கிண மொழியியல் - திறனாய்வியல் - மொழிபெயர்ப்பியல்.

அலகு - 5

அறிவியல் தமிழ் - பெண்ணியம் -தலித்திய இலக்கியம் -ஊடகவியல் -குழந்தை இலக்கியங்கள் -அணிந்துரை இலக்கியம் -நாட்குறிப்பு –மருத்துவ இலக்கியங்கள் -புலம் பெயர்ந்தோர் இலக்கியங்கள் -சொற்பொழிவு இலக்கியங்கள் - அரவாணிய இலக்கியங்கள் - நேர்க்காணல் இலக்கியங்கள் -ஒரு பக்க கட்டுரை இலக்கியம் -இலக்கிய இயக்கங்கள் - திராவிட இயக்கம் - மார்க்சிய இயக்கம் .

பாடநூல்கள் :

1. வகைமை நோக்கில் தமிழ்இலக்கியவரலாறு – பேரா .முனைவர் பாக்கியமேரி.புவேந்தன் பதிப்பகம் ,சென்னை 600004 ,முதற் பதிப்பு -2014,இரண்டாம் பதிப்பு -2017. கைப்பேசி -8056228557

பார்வை நூல்கள்:

1. தமிழ் இலக்கிய வரலாறு – முனைவர் சி .பாலசுப்பிரமணியன். மணமலர்ப் பதிப்பகம் சென்னை.முதற்பதிப்பு -1959 ,இருபத்தியேழாம் பதிப்பு -1998 தமிழ் இலக்கிய வரலாறு– மு.வரதராசனார்.



**DEPARTMENT
OF
ENGLISH**

COURSES

- **Conversational English**
 - **Professional English for Arts and Social Science**
 - **Introduction to Translation**
 - **Professional English**
 - **Introduction to Copy Editing**
- 

Conversational English

Unit I (8 Hours)

Greeting, Introducing, Inviting someone, Making requests, Seeking permission, Persuading

Unit II (8 Hours)

Compliment/congratulating, Expressing sympathy, Complaining, Apologising, Starting a conversation with a stranger, Ending a conversation

Unit III (8 Hours)

Asking for information, Asking someone to say something again, Checking that you have understood, Asking if someone is able to do something

Unit IV (8 Hours)

At the Doctor's, At the bank, Railway enquiry, Looking for accommodation, In a Government office, At the Greengrocer's

Unit V (8 Hours)

Invitation to a party, Talking about a vacation, Seeking admission in a school, Asking about a course, Selling a product, Getting a book published, An interview

PRESCRIBED TEXT:

Spoken English for You Level 1 by Radhakrishna Pillai G, K.Rajeevan, Emerald Publishers, Chennai.

Spoken English for You Level 2 by Radhakrishna Pillai G, Emerald Publishers, Chennai.

Professional English for Arts and Social Science

Unit I: COMMUNICATION

Listening: Listening to instructions

Speaking: Telephone etiquette and official phone conversations

Reading: Short passages (3 passages, one from each – History, Sociology/Social Work/ Psychology, English & Tamil Literature)

Writing: Letters and Emails in professional context

Grammar in Context: Wh and Yes/No questions, Question tags, Imperatives .

Vocabulary: Word formation

- i) Creating antonyms using Prefixes
 - ii) Intensifying prefixes (E. g inflammable)
 - iii) Changing words using suffixes
- A) Noun Endings
 - B) Adjective Endings
 - C) Verb Endings

Unit II: DESCRIPTION

Listening: Listening to process description

Speaking: Role play

Formal: With faculty and mentors in academic environment, Workplace communication

Informal: With peers in academic environment, Workplace communication

Reading: Reading passages on social issues, psychological well-being, literary achievements/contributions

Writing: Writing sentence definitions (e.g. monarchy) and extended definitions (e.g. government), Picture Description – E.g. Description of natural calamities and their impact on people. (100 words)

Grammar in Context: Connectives and linkers.

Vocabulary: Synonyms (register)

Compare & contrast expressions.

Unit III: NEGOTIATION STRATEGIES

Listening: Listening to interviews of specialists / inventors in fields (Subject specific)

Speaking: Brainstorming (mind mapping). Small group discussions (subject-specific)

Reading: Longer Reading text (Comprehensive passages)

Writing: Essay Writing (250 word essay on topics related to subject area like education of the girl child, book reviews, adolescence and youth)

Grammar in Context: Active voice & Passive voice , If conditionals

Vocabulary: Collocations –Phrasal verbs

Unit IV: PRESENTATION SKILLS

Listening: Listening to presentations, listening to lectures, watching documentaries (discovery / history channel videos with subtitles)

Speaking: Short speech

Making formal presentations (PPT)

Reading: Reading a written speech by eminent personalities in the relevant field /short poems / short biography.

Writing: Writing Recommendations

Interpreting visuals - charts / tables/flow diagrams/charts

Grammar in Context: Modals

Vocabulary: Single word substitution (register)

Unit V: CRITICAL THINKING SKILLS

Listening - Listening to advertisements/news and brief documentary films (with subtitles)

Speaking –Problem - Solution Speeches (Brief speeches). E.g. Should the use of public transport be promoted to curb pollution?

Reading: Motivational stories on Professional Competence, Professional Ethics and Life Skills (subject-specific)

Writing Studying problem and finding solutions (Essay in 200 words)

Grammar: Framing simple sentences

Vocabulary: Fixed expressions

Listening: Radio News/ TV News telecast

Speaking: Watch or listen to documentaries and ask questions

Reading: Reading motivational stories (success stories in subject area)

Writing: Essay writing.

Grammar & Vocabulary: Activities, Worksheets & Games

Introduction to Translation

UNIT I (8 Hours)

Introduction, History of Translation Translation theories in India

UNIT II (8 Hours)

Translation, a science or art, The Translator's Responsibilities, Kinds of Translation.

UNIT III (8 Hours)

Translation Procedures Machine Translation

UNIT IV (8 Hours)

Some concepts of Translation, Evaluating a translation

UNIT V (8 Hours)

Practice in translation, Translating any passage from English to Tamil and from Tamil to English

PRESCRIBED TEXT:

Translatology by Dr. A. Shanmugakani , Dr. A. Samuel Kirubahar

Professional English

UNIT I (8 Hours)

Basics of Technical English

UNIT II (8 Hours)

Components of Technical Writing

UNIT III (8 Hours)

Basic Technical Writing skills

UNIT IV (8 Hours)

Common Grammatical errors and Technical style

UNIT V (8 Hours)

Presentation strategies and Oral communication

PRESCRIBED TEXT:

Professional English by Meenakshi Raman and Sangeeta Sharma (Oxford university press)

Introduction to Copyediting

UNIT I (8 Hours)

Introduction, What is copyediting, Typescripts- hard-copy, electronic parts of a book, Preparing a copy.

UNIT II (8 Hours)

Spelling, hyphenation, punctuation, capitalization, Names, italic, roman and other type of treatments.

UNIT III (8 Hours)

Proofs, how to read proofs, How to make corrections, Second proof, Press proof.

UNIT IV (8 Hours)


Work titles in text, quotations and direct speech, abbreviations and symbols.

UNIT V (8 Hours)

Indexes, What need to be done, General organization, Style within the entry.


PRESCRIBED TEXT:

Copyediting by Judith Butcher, Cambridge university press



**DEPARTMENT
OF
MATHEMATICS**

COURSES

- **Vedic Mathematics**
 - **Professional English for Physical Sciences**
 - **Numerical Aptitude**
 - **Mathematics for Competitive Examinations**
 - **Typesetting in Latex**
- 

Vedic Mathematics

Unit: I (5 Hours)

What is Vedic Mathematics? – Introduction – Sutras of Vedic Mathematics – Advantages of using Vedic Mathematics – Applications of Vedic Mathematics IN THE Modern World.

Unit: II (8 Hours)

Squaring of numbers ending with 5 – Subtraction of a number from an aadhar – All from 9 and the last from 10 (Subtraction) – Cases: I and II – Multiplication of two numbers close to an aadhar (base) (Multiplication) – Cases : I , II and II.

Unit: III (9 Hours)

Sutra for finding Square of a number - Simplification by Traditional Method versus Vedic method – Comparison between Traditional Method and Vedic method.

Unit: IV (9 Hours)

Two – digit Multiplication without carry - Two – digit Multiplication with carry over – Three – digit Multiplication.

Unit: V (9 Hours)

Solving Simultaneous Linear Equations (Anurupye Shunyamanyat & Sankalana Vyavkalanabhyam).

REFERENCES

Text Book:

Sumita Bose -2017 “Vedic Mathematics”– V&S Publishers, New Delhi.

Reference Book:

H.K. Gupta -2014 “Vedic Mathematics”– BPI Publishers, New Delhi.

Professional English for Physical Sciences

Unit I: Communication

Listening: Listening to audio text and answering questions - Listening to Instructions

Speaking: Pair work and small group work.

Reading: Comprehension passages –Differentiate between facts and opinion

Writing: Developing a story with pictures.

Vocabulary: Register specific - Incorporated into the LSRW tasks.

Unit II: Description

Listening: Listening to process description.-Drawing a flow chart.

Speaking: Role play (formal context)

Reading: Skimming/Scanning- Reading passages on products, equipment and gadgets.

Writing: Process Description –Compare and Contrast Paragraph-Sentence Definition and Extended definition- Free Writing.

Vocabulary: Register specific -Incorporated into the LSRW tasks.

Unit III: Negotiation Strategies

Listening: Listening to interviews of specialists / Inventors in fields (Subject specific)

Speaking: Brainstorming. (Mind Mapping). Small group discussions (Subject- Specific)

Reading: Longer Reading text.

Writing: Essay Writing (250 words)

Vocabulary: Register specific - Incorporated into the LSRW tasks

Unit IV: Presentation Skills

Listening: Listening to lectures.

Speaking: Short talks.

Reading: Reading Comprehension passages

Writing: Writing Recommendations, Interpreting Visuals inputs

Vocabulary: Register specific - Incorporated into the LSRW tasks

Unit V: Critical Thinking Skills

Listening: Listening comprehension- Listening for information.

Speaking: Making presentations (with PPT- practice).

Reading: Comprehension passages –Note making. Comprehension: Motivational article on Professional Competence, Professional Ethics and Life Skills)

Writing: Problem and Solution essay– Creative writing –Summary writing

Vocabulary: Register specific - Incorporated into the LSRW tasks

REFERENCES:

Text Book:

English for Physical Sciences - TANSICHE

Numerical Aptitude

Unit I (5 Hours)

Numbers-H.C.F and L.C.M of Numbers-Simplification

Unit II (8 Hours)

Square roots and Cube roots .

Unit III (9 Hours)

Problem on Numbers.

Unit IV (9 Hours)

Problem on Ages.

Unit V (9 Hours)

Percentage- Concept of percentage.

REFERENCES

Text Book:

Aggarwal R.S. (2012 Edition), Quantitative Aptitude for Competitive Examinations, S. Chand & Company Ltd, New Delhi

Reference Books:

1. Sijwali B. S.(2007), Quantitative Aptitude,Arihand Publications (India) PVT LTD.
2. AbhijitGuha(2006), Quantitative Aptitude for Competitive Examinations, McGraw Hill Companies.

Mathematics for Competitive Examinations

Unit I :Sequences and Series

Sequence and Series – Convergence - Lim sup –

Unit II : Sequences and Series

Lim inf - Bolzano weierstrass theorem - Heine Borel theorem

Unit III : Group Theory

Groups – Subgroups - Normal subgroups - Quotient groups – Homomorphism - Cyclic groups - Permutation groups.

Unit IV : Group Theory

Homomorphism - Cyclic groups -Permutation groups.

Unit V :Complex numbers , Analytic function

Power series - Analytic functions – Cauchy Riemann equations

REFERENCES

Text Book

UGC CSIR NET/SET -Mathematical Analysis- 'Pawansharma, Neha Sharma and Suraj singh'- Arihant publications(India)Ltd.

Reference Book

UGCCSIRNET/SET-MathematicalAnalysis-'Akilesh Mmani Thirupathi and Sunil Kushwaha'- Kanika publishing company.

Type Setting in Latex

Unit I

Preparing an input file, sentences and paragraphs, the document class, sectioning, display material, running Latex,

Unit II

Changes the type style, producing mathematical symbols and mathematical formulae, arrays, delimiters, multiline formulae, putting one thing on other, spacing in math mode.

Unit III

Defining command and environments, Producing and including graphics in a Latex file, figures and other floating bodies, lining it up in columns, table of content, cross-reference, bibliography and citation, making index and glossary, slides, overlays and notes, letters.

Unit IV

Design it yourself: document class, page style, title page, customizing the style, line and page breaking, numbering, length, spaces and boxes, formatting with boxes, centering and flushing, list making environments, changing font type size and special symbols.

Unit V

Picture, picture environments, picture objects, text, boxes, straight lines, arrow, stacks, circles, oval, framing, curve, grid, repeat patterns.

REFERENCES

Text Book


Leslie Lamport , A Document Preparation System User's Guide and Reference Manual, Addison-Wesley Publishing Company.

Reference Books

Stefan Kottwitz , LaTeX Beginner's Guide, Packt Publishing, UK.


Other Sources for reading

1. Till Tantau , User Guide to the Beamer Class, <http://latex-beamer.sourceforge.net>.
2. Tobias Oetiker, The Not So Short Introduction to LATEX2E, <https://tobi.oetiker.ch/lshort/lshort.pdf>



**DEPARTMENT
OF
PHYSICS**

COURSES

- **Crystal Physics**
 - **Professional English for Physical Sciences**
 - **Problem Solving in Physics for Competitive Exams**
 - **Material Science**
 - **Problem Solving for NET/SLET Exams**
- 

Crystal Physics

Unit I (10 Hours)

Crystal Structure: Distinction between Crystalline and Amorphous –Different features of the crystals–Crystal Lattice – Basis –Crystal Structure – Unit cell – Primitive lattice – Seven crystal system

UnitII (10 Hours)

Crystal Defects:Classification of Crystal imperfections –Schottky Defect – Frenkel defect – Edge dislocation – Screw dislocation

Unit III(10 Hours)

Bonding in Solids:Type of Bonds in Crystals – Ionic – Covalent – Metallic – Molecular - Hydrogen bonding

Unit IV (10 Hours)

Band Theory of Solids:Classification of solids based on the basis of Band theory: Conductors – Semiconductors– Insulators– Conductivity of Semiconductors

REFERENCES

Text Books

1. Modern Physics– R Murugesan, 2018, S. Chand & Co
2. Concepts of Modern Physics – Arthur Beiser, Sixth Edition, 2013, McGraw Hill

Reference Books

1. Solid State Physics – Gupta and Kumar, 9th Revised Edition, 2016, K. Nath& Co, Meerut
2. Elements of Solid State Physics – J.P. Srivastava, 2nd Edition, 2006, Prentice-Hall of India4.

Professional English For Physical Sciences

Unit I: Communication

Listening: Listening to audio text and answering questions - Listening to Instructions

Speaking: Pair work and small group work.

Reading: Comprehension passages –Differentiate between facts and opinion

Writing: Developing a story with pictures.

Vocabulary: Register specific - Incorporated into the LSRW tasks.

Unit II: Description

Listening: Listening to process description.-Drawing a flow chart.

Speaking: Role play (formal context)

Reading: Skimming/Scanning- Reading passages on products, equipment and gadgets.

Writing: Process Description –Compare and Contrast Paragraph-Sentence Definition and Extended definition- Free Writing.

Vocabulary: Register specific -Incorporated into the LSRW tasks.

Unit III: Negotiation Strategies

Listening: Listening to interviews of specialists / Inventors in fields (Subject specific)

Speaking: Brainstorming. (Mind Mapping). Small group discussions (Subject- Specific)

Reading: Longer Reading text.

Writing: Essay Writing (250 words)

Vocabulary: Register specific - Incorporated into the LSRW tasks

Unit IV: Presentation Skills

Listening: Listening to lectures.

Speaking: Short talks.

Reading: Reading Comprehension passages

Writing: Writing Recommendations, Interpreting Visuals inputs

Vocabulary: Register specific - Incorporated into the LSRW tasks

Unit V: Critical Thinking Skills

Listening: Listening comprehension- Listening for information.

Speaking: Making presentations (with PPT- practice).

Reading: Comprehension passages –Note making. Comprehension: Motivational article on Professional Competence, Professional Ethics and Life Skills)

Writing: Problem and Solution essay– Creative writing –Summary writing

Vocabulary: Register specific - Incorporated into the LSRW tasks

REFERENCES:

Text Book:

English for Physical Sciences - TANSICHE

Problem Solving In Physics for Competitive Exams

Unit I (9 Hours)

Motion in One Dimension: Displacement, Velocity, and Speed - Instantaneous Velocity and Speed – Acceleration - One-Dimensional Motion with Constant Acceleration - Freely Falling Objects (Example Problems only)

UNIT II (9 Hours)

Vectors: Coordinate Systems - Vector and Scalar Quantities - Some Properties of Vectors - Components of a Vector and Unit Vectors

Motion in Two Dimensions: The Displacement, Velocity, and Acceleration Vectors - Two-Dimensional Motion with Constant Acceleration - Projectile Motion - Uniform Circular Motion (Example Problems only)

Unit III (9 Hours)

The Laws of Motion: The Concept of Force - Newton's First Law and Inertial frames – Mass - Newton's Second Law - The Force of Gravity and Weight - Newton's Third Law - Some Applications of Newton's Laws - Forces of Friction. (Example Problems only)

Unit IV (9 Hours)

Electric Fields: Properties of Electric Charges - Insulators and Conductors - Coulomb's Law - The Electric Field - Electric Field of a Continuous Charge Distribution - Electric Field Lines - Motion of Charged Particles in a Uniform Electric Field. (Example Problems only)

Unit V (9 Hours)

Current and Resistance: Electric Current - Resistance and Ohm's Law - A Model for Electrical Conduction - Resistance and Temperature - Electrical Energy and Power.

Direct Current Circuits: Electromotive Force - Resistors in Series and in Parallel - Kirchhoff's Rules - RC Circuits. (Example Problems only)

REFERENCES

Text Books

1. Fundamentals of Physics by David Halliday, Robert Resnick, Jearl Walker, 10th Edition, ISBN: 978-1-118-23072-5, 2013, John Wiley & Sons Inc.,.

Material Science

Unit I (9 Hours)

Material Science: Properties of Engineering Material– Selection of Materials for Engineering Applications.

Unit II (9 Hours)

Magnetic Materials: Different types of Magnetic Materials –Diamagnetism and Paramagnetism – Ferromagnetism – Domain theory of ferromagnetism - Hard and Soft magnetic materials

Unit III (9 Hours)

Modern Engineering Materials: Polymer – Ceramics – Super Strong Materials – Cermets– High temperature materials– Thermoelectric Materials– Electrets– Nuclear Engineering materials

Unit IV (9 Hours)

New Materials: Metallic glasses – Fiber reinforced plastics – Metal matrix composites – Optical Materials– Materials for optical sources and detectors– Fiber Optic materials and their applications

Unit V (9 Hours)

Display Materials – Acoustic Materials and their applications– SAW materials– Biomaterials

REFERENCES

Books for Study

1. Materials science- M Arumugam, Anuradha agencies

Reference Books

1. Materials Science and Engineering - V. Raghavan, Prentice Hall of India,

Problem Solving for NET/SLET Exams

UNIT I (9 Hours)

Vector Calculus: Product of vectors – Gradient – Divergence & Curl – Integration of vectors: Linear integration of vectors, Surface integration of vectors, Volume integration of vectors, Linear dependency of vectors, Orthogonal curvilinear co-ordinates

UNIT II (9 Hours)

Matrices: Eigen values & Eigen vectors – Cayley-Hamilton theorem – Rank of a matrix – Diagonalisation of a matrix – Linear transformation – Applications

UNIT – III (9 Hours)

Complex Analysis: Function of complex variables – Complex analytic function – Power series: Expansion of Complex function – Singularity of Complex function – Residue of a Complex function

UNIT – IV (9 Hours)

Differential Equations: Differential equation of first order and first degree – Linear second order differential equation – Legendre differential equation – Bessel differential equation – Hermite differential equation – Laguerre differential equation.

UNIT –V (9 Hours)

Tensor Analysis: Basic review of tensors – Algebra of tensors – Fundamental tensors – Christoffel symbols – Co-variant, contra-variant and mixed tensors.

REFERENCES

Text Books

1. Mathematical Physics (revised), H K Dass, S. Chand (2008), ISBN 8121914698, 9788121914697.
2. Mathematical Physics(revised), SatyaPrakash, Sultan Chand & Sons (2014), ISBN 8180549283, 978-8180549281

Reference Books

1. Mathematical Physics, Kakani S.L - 3rd Edition 2009, ISBN 9789386478238.
2. Mathematical Physics, B.D Gupta- Vikas publishing house–4th Edition 2009, ISBN 8125930965, 9788125930969.
3. Mathematical Physics, Rajput B.S. –Pragatiprakashan -23rd Edition-2011


Reference Links

1. <https://nptel.ac.in/courses>



**DEPARTMENT
OF
COMPUTER
SCIENCE**

COURSES

- **Computer Hardware Basics and Trouble Shooting**
 - **Microsoft Excel- Basics to Advanced**
 - **Professional English for Physical Sciences**
 - **Complete SQL and Database Bootcamp**
 - **Networking**
- 

Computer Hardware Basics and Troubleshooting

Unit I (6 Hours)

Fundamental of Computer system: Explain basic electronics and components - Explain fundamental of computer system - Explain different types of IT hardware and software product and their functionalities. - Explain functional units of computer system.

Unit II (9 Hours)

Install, configure and setup the system: Identification of computer parts/ modules - Select tools and equipment for installation - Assemble and Install the computer system - Check and ensure functioning of system - Configure peripherals and network devices - Knowledge of Company's SOP - Follow SOP for equipment maintenance, system troubleshooting.

Unit III (9 Hours)

Troubleshoot and replace faulty module: Knowledge of Customer's SLA - Understand the symptoms and identify the fault - Identify system level problem on field and make decision - Operate various tools and equipments - Basic troubleshooting of computer system and peripherals - Understand under warranty incidents - Knowledge of incident escalation - RCA of recurring incidents - Follow safety procedure while handling tools and system troubleshooting.

Unit IV (6 Hours)

IT Security: Understand the method of installing, configuring, outlook and concepts of anti-virus. - methods of identifying types and indication of virus, worms, Trojan etc. -compatibility issues and common errors.

Unit V (10 Hours)

Engage with customer: Understand customer's requirements and suggest possible solution - Do's and Don'ts while handling field calls and dealing with customers - Follow behavior etiquette when interacting with customer's Importance of personal grooming - Understand incident life cycle - Educate customer for non occurrence of recurring incidents and safety process.

Coordinate with colleagues: Understand work requirements - Report problems identified in the field - Deliver work of expected quality - Resolve inter-personnel conflicts and achieve smooth workflow - Communicate effectively - Building team coordination.

REFERENCES

Text Book:

PMKVY Material for FTCP course

Microsoft Excel- Basics to Advanced

Unit I (5 Hours)

Microsoft Excel Introduction: MS Excel Fundamentals-Entering and Editing Text and Formulas - Working with Basic Excel functions - Modifying an Excel Worksheet.

Unit II (8 Hours)

Formatting data in an Excel Worksheet - Inserting Images and Shapes into an Excel Worksheet - Creating Basic Charts in Excel - Printing an Excel Worksheet-Working with Excel Templates.

Unit III (9 Hours)

Working with an Excel list - Excel list functions - Excel data validation - Importing and Exporting data - Excel PivotTables - Working with Excel's PowerPivot Tools - Working with Large sets of Excel data.

Unit IV (9 Hours)

Working with Excel's Conditional Functions-Working with Excel's Lookup functions-Working with Excel's Text Based functions-Auditing an Excel Worksheet-Protecting Excel Worksheets and Workbooks-Mastering Excel's "What if?" Tools.

Unit V (9 Hours)

Automating repetitive tasks in Excel with Macros - MS Excel Macros and VBA introduction - Excel VBA concepts - Exercises.

REFERENCES

Reference Link:

[https://www.udemy.com/share/101WdeBEMbcl5RRHg=/
/](https://www.udemy.com/share/101WdeBEMbcl5RRHg=/)

Professional English for Physical Sciences

Unit I: Communication

Listening: Listening to audio text and answering questions - Listening to Instructions

Speaking: Pair work and small group work.

Reading: Comprehension passages –Differentiate between facts and opinion

Writing: Developing a story with pictures.

Vocabulary: Register specific - Incorporated into the LSRW tasks.

Unit II: Description

Listening: Listening to process description.-Drawing a flow chart.

Speaking: Role play (formal context)

Reading: Skimming/Scanning- Reading passages on products, equipment and gadgets.

Writing: Process Description –Compare and Contrast Paragraph-Sentence Definition and Extended definition- Free Writing.

Vocabulary: Register specific -Incorporated into the LSRW tasks.

Unit III: Negotiation Strategies

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Writing: Essay Writing (250 words)

Vocabulary: Register specific - Incorporated into the LSRW tasks

Unit IV: Presentation Skills

Listening: Listening to lectures.

Speaking: Short talks.

Reading: Reading Comprehension passages

Writing: Writing Recommendations, Interpreting Visuals inputs

Vocabulary: Register specific - Incorporated into the LSRW tasks

Unit V: Critical Thinking Skills

Listening: Listening comprehension- Listening for information.

Speaking: Making presentations (with PPT- practice).

Reading: Comprehension passages –Note making. Comprehension: Motivational article on Professional Competence, Professional Ethics and Life Skills)

Writing: Problem and Solution essay– Creative writing –Summary writing

Vocabulary: Register specific - Incorporated into the LSRW tasks

REFERENCES:

Text Book:

English for Physical Sciences - TANSICHE

Complete SQL and Databases Bootcamp

Unit I (6 Hours)

History and Story of Data: What is Database? - Database Management System (DBMS)-Five types of Databases-**Databases and SQL Fundamentals:** What is SQL? -What is a Query- Imperative vs Declarative- History of SQL-SQL standards- Database oriented approach- Database Model-Hierarchical and Networking Model-Relational Model-Tables-Columns-Rows- Primary and Foreign keys-OLTP vs OLAP.

Unit II (8 Hours)

Environment Setup: Why PostgreSQL-Environment Tooling-Command line-Windows setup-Setting up windows for command line-Importing data on windows-**SQL Deep Dive:** Starting with query- Working with simple queries-concat functions-renaming columns-what is a function in SQL?-aggregate functions- common SELECT mistakes-filtering data-AND and OR-the NOT keyword-comparison operators-logical operators-operator precedence-checking for NULL values- IS Keyword-NULL coalescing-three valued logic-BETWEEN+AND-IN keyword-LIKE-**Dates and Timezones**-Age calculation-Extracting information-intervals-DISTINCT-sorting data-multi table SELECT-Inner join, self join, outer join-less common joins-USING keyword.

Unit III (9 Hours)

Advanced SQL: GROUP BY-HAVING keyword-ordering grouped data-group by mental model-grouping sets-rollup-window what? - looking through the window-PARTITION BY-FIRST_VALUE, LAST_VALUE-SUM-ROW_NUMBER-conditional statements-views-indexes-what are subqueries? - subqueries vs joins-using subqueries - subquery operators- Database Management-Exercise.

Unit IV (9 Hours)

Database Design-Database landscape, performance and security.

Unit V (8 Hours)

Introduction to Data Engineering (and role of machine learning)-Introduction to Redis-Databases in a web (with Node.js).

REFERENCES

Reference Link

https://www.udemy.com/share/103yFsBEMbcl5RRHg=

Networking

Unit I (9 Hours)

Hardware Essentials: Understanding the different component of computer , Assembly of system Troubleshooting of the system - Understand layout, Components and form factors of mother board - Understand the slot types and different memory types - Identify the types of Storage - Methods of storage Corresponding NOS and different hardware components Code used storage - Identify the types of hardware components in the computer and differentiate it - Understand the methods of troubleshooting storage, power supplies - Understand types of printer and scanner and recognize features used - Recognize the types of laptop devices and to understand note book concepts - Recognize of the component of computer, troubleshooting and installing and configuring of operating system and drivers - Importance of work etiquette, to understand the methods safety measure to be used.

Unit II (8 Hours)

Network Essentials: To understand the networking, OSI - Cables (RJ45) - Concepts- Recognize the Network - Network switch- technologies. Routers - Understand the types of application functionality - Understand the color coding for Ethernet cable to be crimping - Recognize network adaptor configuration - Recognize the network designed - Corresponding NOS Code structure - Understand the different configuration methods of device.

Unit III (9 Hours)

Windows Essentials: Understand features of windows client, performance information, tool configuration. - Understand the methods of installation, upgrading and its features - Understand the method of Configuring, maintaining, backup and recovery- Recognize the methods of installation, configuration, system security, maintaining of backup - Understand the method basic functions to be done, service to be provided, communicate effectively in formal situations.

Windows Server: Understand directory services and different functional levels - methods of installing and configuring Directory services.- methods of disaster recovery and backup - Recognize the method of implementing secure domain - Administrating and creation of user, maintaining group policies.

Unit IV (8 Hours)

Linux Server: Recognize the Linux features, basic commands – Understand the methods of installing, configuring server and To understand the method of fault analysis, file system corruption - To understand method of installing, configuring network adaptor, basic services, managing of storage.

Unit V (6 Hours)

IT Security: Understand the method of installing, configuring, outlook and concepts of anti-virus – Methods of identifying types and indication of virus, worms, Trojan etc - Compatibility issues and common errors - Recognize basic security risks - Methods of system vulnerability and fixing them and methods of measure to prevent them.

REFERENCES


Text Book

PMKVY Material for FTNS course



**DEPARTMENT
OF
COMMERCE**

COURSES

- **Intelligence for Excellence**
 - **Professional English for Commerce and Management**
 - **Practical Psychology**
 - **Tally with GST**
 - **Introduction to Digital Marketing**
 - **Preparatory Course for NET / SET Examination**
- 

Intelligence for Excellence

Unit I (6 Hrs)

Self Intelligence: Intelligence: Definition and Meaning – Intelligence cycle- Self Intelligence: Personality - Strategic thinking - Lateral Thinking- Emotional Intelligence: Self awareness - Motivation – Self regulation- Social awareness – Empathy - Decision making: meaning-methods-types and steps in making effective decision making

Unit II (6 Hrs)

Multiple Intelligence: Meaning and types of Multiple intelligence- Successful Intelligence Meaning and types of Successful Intelligence-Creative Intelligence- Practical Intelligence - Analytical Intelligence.

Unit III (6 Hrs)

Interpersonal intelligence: Definition- Meaning and development of interpersonal intelligence – Interpersonal intelligence and career advancement- Negotiation: Definition and meaning – Principles involved in negotiation – methods of negotiation- Conflict: Definition and meaning – sources of conflicts – types of conflicts - conflict management; Change: Definition and meaning– Types of change – Handling of change – Balancing work and Life

Unit IV (6 Hrs)

Social Intelligence: Meaning and Dimensions of Social Intelligence- Situation- Presence – Authenticity – Clarity-Empathy -Spiritual Intelligence: Meaning-Competencies and skills of spiritual intelligence

Unit V(6 Hrs)

Environmental Intelligence: Understanding and caring of Natural Resources- Food- Land- Forest Mineral- Water and Energy- Pollution: Types: Air Pollution, Water Pollution, Noise Pollution, Thermal and Radiation; Specific Absorption Rate (SAR) values; Issues affecting environment: Population growth – Deforestation- Globalization - Sustainable development: meaning, process, concrete action plans for sustainability.

TEXT BOOK:

1. Karl Albrecht(2006),” *Social Intelligence: The new science of Success*”, John Wiley & Sons.
2. Robert J Sternberg(2000),” *Successful Intelligence*”, Magna Publishing Co Ltd.

REFERENCE BOOK:

1. Daniel Goleman(1995),” *Emotional Intelligence*”, Bantom Books.
2. Dorathy A Sisk and Dr Paul Torrence(2001),” *Spiritual Intelligence*”, Creative Education Foundation.

Professional English for Commerce and Management

Unit 1 (8 Hrs)

Basics of professional English communication: Definition, Reading, Skimming, Scanning. Writing: Methods: Inductive, Deductive, Exposition, Linear, Interrupted, Spatial & Chronological; Listening: Active, Passive, Thinking Strategies, Positive and logical Thinking.

Unit II (8 Hrs)

Components of Professional English: Vocabulary building: Select words, Word Formation, Root words from foreign languages & their use in English, Prefixes & Suffixes, Synonyms, Antonyms, Homophones, Requisites of Sentences.

Unit III (8 Hrs)

Basics of Professional English: Forms- Business writing- Purchase & sales letter, Drafts: Official writing- Letter, Notice, Agenda, Minutes of meeting, Sentence Structure, Techniques of writing

Unit IV (8 Hrs)

Common grammatical errors & Technical style: Correct Usage- Noun, Pronoun, Agreement, Prepositions. Technical Style- Features, Choice of word. Sentence-Defining & classifying, length of paragraph, writing of introduction & conclusion.

Unit V (8 Hrs)

Presentation strategies & Oral Communication: Audience, Modulating Style & content, speaking with Confidence, Kinesics, Paralinguistic Features of voice Dynamics: Pitch, Intonation, Stress & Rhythm, Conversation & dialogue.

TEXT BOOK:

Arthur Mckeown Ros Wright, 2011, "*Professional English*" Cambridge University Press

BOOKS FOR REFERENCE:

1. Norman Lewis., 2009, '*Word Power Made Easy*' W.R.Goyal Pub. & Distributers.
2. Krishna Mohan Meera Bannaerjee., 1990, "*Developing Communication Skill*" Macmillan India Ltd.

Practical Psychology

Unit – I (8 Hrs)

Personality: Personality: Meaning, Types Traits: Physical, Mental, Emotional, Social; improving personality.

Unit – II (8 Hrs)

Making the First Impression: Remember names, Smile, Appealing to self expression, listening to others, being empathetic.

Unit – III (8 Hrs)

Handling People: Meaning, Need Techniques: Appreciation, Criticism, Avoid Flattery, Avoid arguments and Fault finding.

Unit – IV (8 Hrs)

Interpersonal Skills: Meaning, Importance, Elements: Ability to handle diverse roles, Altruism, Negotiation, Handling conflicts, Developing skills: Role play, Behaviour modelling, Structured insight.

Unit – V (8 Hrs)

Interactive Skills: Meaning, Nature, Types, Transaction Analysis: Ego states, Types of transactions.

REFERENCE BOOKS

1. Feltham, Colin, and Windy, 2004, “Dictionary of Counseling”, Second Edition, John Wiley and Sons, New Delhi.
2. Narayana Rao S and Sahajpal P, 2012, “Counseling and Guidance”, Third Edition, Tata Mc Graw Hill, New Delhi.
3. Nayak A.K, 2012, “Guidance and Counseling”, First Edition, APH Publishing Corporation, New Delhi.
4. Dr.S.S.Khanka, 2012, Organisational Behaviour, Reprint, S.Chand & Company Ltd, New Delhi.
5. M.R.Kopmeyer, 2003, ‘Here is help’ UBS Publishers.

TALLY with GST

Unit I

Fundamentals of Accounting:

Introduction – Accounting Terms – Accounting Assumptions, Concepts and Principles – Double Entry System of accounting – Types of accounts – The Golden Rules of Accounting – Source Documents of Accounting – Recording of Business Transactions – Ledger – Trail Balance – Subsidiary books – Financial Statements – Trading and Profit and Loss Accounts – Balance sheet.

Unit II

Maintaining Charts of Accounting in Tally ERP 9:

Introduction – Company Creation – Company Features and configurations – Charts of accounts – Ledger creation – Group creation – Displaying group and ledger – Deletion of groups and ledgers.

Maintaining Stock Keeping Units (SKU):

Introduction – Inventory masters in Tally ERP 9 - Creation Inventory Masters – Reports.

Unit III

Recording day to day Transactions in Tally ERP 9 :

Introduction – Business Transactions – Source Document or Voucher – Recording transactions in Tally ERP 9 – Accounting vouchers.

Accounts Receivable and Payable Management:

Introduction – Maintaining bill wise details – Activation of maintain bill wise details feature – New reference – Against reference – Advance – on account – Stock category Report – Changing the Financial year in Tally ERP 9.

Unit IV

Management Information System (MIS) :

Introduction – Advantages of Management Information System – MIS reports in Tally ERP 9 – Trail balance – Balance Sheet – Profit and Loss account – Cash flow statement – Ratio analysis – Books and Reports.

Unit V

Getting Started with GST:

Introduction – Enabling GST and Defining Tax Details – Transferring input tax credit to GST – Intrastate supply of goods – Interstate supply of goods – Return of goods – Suppliers inclusive of tax – Defining tax rates at master and transactions levels – GST Report – Input tax credit set off – GST tax payment – Exporting GSTR -1 return and uploading in GST portal – Accounting of supply services -Accounting Exempted Services.

Recording Vouchers with TDS (Tax Deducted at Source):

Introduction – Basic concepts of TDS – TDS in Tally ERP 9 – Activation of TDS features in Tally ERP 9 – TDS statutory masters – Configuring TDS at group level – Configuring TDS at ledger level – Booking of Expenses in Purchase Voucher – TDS Report.

Introduction to Digital Marketing

Unit I (6 Hours)

Introduction to Digital Marketing

Digital marketing – Meaning, Definition, Objectives-Importance of digital marketing - Difference between traditional and digital marketing - recent trends and current scenario of the industry - digital marketing tools -digital marketing to increase sales-competitive analysis -Case studies on digital marketing strategies. Website Planning and Creation- website tool to generate leads, increase their credibility among consumers – Basic structure of a website – commercial websites –personal website and Blogs.

Unit II (6 Hours)

Search Engine Optimisation (SEO)

Search Engine Optimisation - search engine's results page (SERP) - various search engines and their algorithms -SEO like on-page and off-page optimisation, keywords research, meta tags, meta description & link building. Search Engine Marketing – Objectives, Functions, Advantages- Problems - SEM activities via Google Ads platform - search volume, cost-per- click (CPC), customer lifetime value (CLV) and other such metrics - ad copy, URL, ad description and call-to-action (CTA).

Unit III (6 Hours)

Social Media Marketing

Social Media Marketing (SMM) – Need & Importance - social media strategies on platforms such as Facebook, Twitter, Instagram, YouTube, LinkedIn, Pinterest, Google+, Snapchat and TikTok - Ccost-Per-Click (CPC), Cost-Per-View (CPV), Cost-Per-Impression (CPM) -case studies on successful social media strategies . Mobile Marketing – apps- app installations- analyze app metrics - app store optimisation (ASO). Besides this, -app advertising, in-app messaging and push notification.

Unit IV (6 Hours)

Content Strategies

Content Marketing - a target audience – Fundamentals of digital -content validation – Branding-social media content calendar for a brand. Web Analytics – meaning, importance,

advantages –methods of Web Analytics -website visitor’s behaviour- Measurement-website visitor’s actions via Google Analytics bounce rate, page view, session time, etc. - Analytics to decode a website’s audience - behaviour and acquisition reports.

Unit V (6 Hours)

Digital Media Planning and Buying

Media Planning – Meaning, importance- Steps in Media Planning- Digital Media – Types, Uses- Selection of appropriate Media- Media Audit- cost-per-install (CPI), cost-per-order (CPO), cost-per-acquisition (CPA), click-through-rate (CTR), etc. - platform-based Ad space, and media planning and budgeting. Web Remarketing - Web Remarketing - Remarketing process – Need and Importance, Advantages -remarketing and remarketing list.

Books for Reference:

1. Vandana Ahuja, Digital Marketing. Oxford University. press, UK.2018
2. Romi Sainy and Rajendra Nargundkar,Digital Marketing Cases from India, Notion Press Chennai, 2018
3. Social Beat(Digital Agency),Digital Marketing Insights, Notion Press Chennai2018

Preparatory Course for NET/SET Examination

Unit 1: Business Environment and International Business

- Concepts and elements of business environment: Economic environment- Economic systems, Economic policies(Monetary and fiscal policies); Political environment- Role of government in business; Legal environment- Consumer Protection Act, FEMA; Socio-cultural factors and their influence on business; Corporate Social Responsibility (CSR)
- Scope and importance of international business; Globalization and its drivers; Modes of entry into international business
- Theories of international trade; Government intervention in international trade; Tariff and non-tariff barriers; India's foreign trade policy
- Foreign direct investment (FDI) and Foreign portfolio investment (FPI); Types of FDI, Costs and benefits of FDI to home and host countries; Trends in FDI; India's FDI policy
- Balance of payments (BOP): Importance and components of BOP
- Regional Economic Integration: Levels of Regional Economic Integration; Trade creation and diversion effects; Regional Trade Agreements: European Union (EU), ASEAN, SAARC, NAFTA
- International Economic institutions: IMF, World Bank, UNCTAD
- World Trade Organisation (WTO): Functions and objectives of WTO; Agriculture Agreement; GATS; TRIPS; TRIMS

Unit 2: Business Economics

- Meaning and scope of business economics
- Objectives of business firms
- Demand analysis: Law of demand; Elasticity of demand and its measurement; Relationship between AR and MR
- Consumer behavior: Utility analysis; Indifference curve analysis
- Law of Variable Proportions: Law of Returns to Scale
- Theory of cost: Short-run and long-run cost curves
- Price determination under different market forms: Perfect competition; Monopolistic competition; Oligopoly- Price leadership model; Monopoly; Price discrimination
- Pricing strategies: Price skimming; Price penetration; Peak load pricing

Unit 3: Business Finance

- Scope and sources of finance; Lease financing
- Cost of capital and time value of money
- Capital structure
- Capital budgeting decisions: Conventional and scientific techniques of capital budgeting analysis
- Working capital management; Dividend decision: Theories and policies
- Risk and return analysis; Asset securitization

- International monetary system
- Foreign exchange market; Exchange rate risk and hedging techniques
- International financial markets and instruments: Euro currency; GDRs; ADRs
- International arbitrage; Multinational capital budgeting

Unit 4: Business Statistics and Research Methods

- Measures of central tendency
- Measures of dispersion
- Measures of skewness
- Correlation and regression of two variables
- Probability: Approaches to probability; Bayes' theorem
- Probability distributions: Binomial, poisson and normal distributions
- Research: Concept and types; Research designs
- Data: Collection and classification of data
- Sampling and estimation: Concepts; Methods of sampling - probability and non-probability methods; Sampling distribution; Central limit theorem; Standard error; Statistical estimation
- Hypothesis testing: z-test; t-test; ANOVA; Chi-square test ; Mann-Whitney test (U-test); Kruskal-Wallis test (H-test); Rank correlation test
- Report writing

Unit 5 : Marketing Management

- Marketing: Concept and approaches; Marketing channels; Marketing mix; Strategic marketing planning; Market segmentation, targeting and positioning
- Product decisions: Concept; Product line; Product mix decisions; Product life cycle; New product development
- Pricing decisions: Factors affecting price determination; Pricing policies and strategies.
- Promotion decisions: Role of promotion in marketing; Promotion methods - Advertising; Personal selling; Publicity; Sales promotion tools and techniques; Promotion mix
- Distribution decisions: Channels of distribution; Channel management
- Consumer Behaviour; Consumer buying process; factors influencing consumer buying decisions
- Service marketing
- Trends in marketing: Social marketing; Online marketing; Green marketing; Direct marketing; Rural marketing; CRM
- Logistics management


Books for Reference:

1. RPH Editorial Board, UGC NET/JRF Exam- Commerce – Paper II, Ramesh Publishing House, New Delhi.
2. Dr. L.N. Koli and Madan Singh, UGC (NET / SET / JRF) Upkar Prakashan, 2011th edition 1 January 2015
3. Pratiyogita Darpan, UGC NET/JRF Exam Solved Papers Commerce, Upkar Publishing House, 2015
4. R. Gupta, **UGC-NET: Commerce (Paper II)**, National Testing Agency 2018



DEPARTMENT OF MANAGEMENT

COURSES

- **Life Skills for Youth**
 - **Professional English for Commerce and Management**
 - **Wealth Management**
 - **Office Automation**
 - **Internet of Things**
- 

Life Skills for Youth

Unit I: (8 Hours) Understanding Life Skills:

Life Skills: Meaning, Need for life skills, Different approaches to life skills.

Unit II: (8 Hours) Key Issues Related with Adolescents

Managing Emotions: Meaning, Handling conflicts, Building relationships.

Unit III: (8 Hours) Core Strengthening Life Skills-I

Professionalism (grooming and self-respect), Positive attitude, Motivation, Ability to learn.

Unit IV: (8 Hours) Core Strengthening Life Skills-II

Communication skills, Teamwork, Interpersonal skills, Critical thinking and problem solving.

Unit V: (8 Hours) Knowing Yourself

Building self-esteem, removing the negatives, Setting Goals for the Life.

Reference Books:

1. Dr. Rajeshkumar I. Bhatt - Life Skill Education –Notion Press-2017
2. Dr. Lalita K. Sharma – Life Skill Education in India- Nitya Publicationa-2021

Professional English for Commerce and Management

Unit I: (8 Hours) Basics of Professional English Communication:

Definition, Reading, Skimming, Scanning. Writing: Methods: Inductive, Deductive, Exposition, Linear, Interrupted, Spatial & Chronological; Listening: Active, Passive, Thinking Strategies, Positive and logical Thinking.

Unit II: (8 Hours) Components of Professional English:

Vocabulary building: Select words, Word Formation, Root words from foreign languages & their use in English, Prefixes & Suffixes, Synonyms, Antonyms, Homophones, and Requisites of Sentences.

Unit III: (8 Hours) Basics of Professional English:

Forms- Business writing- Purchase & sales letter, Drafts: Official writing- Letter, Notice, Agenda, Minutes of meeting, Sentence Structure, Techniques of writing.

Unit IV: (8 Hours) Common grammatical errors & Technical style:

Correct Usage- Noun, Pronoun, Agreement, Prepositions. Technical Style- Features, Choice of word. Sentence-Defining & classifying, length of paragraph, writing of introduction & conclusion.

Unit V: (8 Hours) Presentation strategies & Oral Communication

Audience, Modulating Style & content, speaking with Confidence, Kinesics, Paralinguistic Features of voice Dynamics: Pitch, Intonation, Stress & Rhythm, Conversation & dialogue.

Text Book:

1. Arthur Mckeown Ros Wright- *Professional English*- Cambridge University Press-2011

Reference Books:

1. Norman Lewis- *Word Power Made Easy*- W.R.Goyal Pub. & Distributers-2009
2. Krishna Mohan & Meera Bannaerjee - *Developing Communication Skill* - Macmillan India Ltd.,- 1990

Wealth Management

Unit I: (8 Hours) Introduction to Wealth Management

Meaning of Wealth Management, Scope, Process and Needs of Wealth Management; Wealth Manager- Meaning, Duties of Wealth Manager.

Unit II: (8 Hours) Insurance Planning

Meaning, Basic Principles of Insurance, Functions and Characteristics, Different Types of Insurance Policies.

Unit III: (8 Hours) Investment Planning

Investment – Meaning, Types of Investment, Risks related to investments, Features and importance of Investment, Investment alternatives.

Unit IV: (8 Hours) Retirement Planning

Understanding of Different Salary Components, Introduction to Retirement Planning, Purpose and Need of Retirement Planning, Retirement Benefits plans.

Unit V: (8 Hours) Tax Savings Schemes

Tax saving schemes – Meaning and concepts, Importance and benefits of tax saving, Various Income Tax Savings Schemes.

Reference Books:

1. S.K.Bagchi- Wealth Management- Jaico Publishing House-2009
2. Dun and Bradstreet- Wealth Management- McGraw Hill Education-2017
3. Harold Evensky- The New Wealth Management- Wiley Publication-2011

Office Automation

Unit I (8 Hours)

Operating System (Windows): Windows concepts, Features, Windows Structure, Desktop, Taskbar, Start Menu, My Computer, Recycle Bin, Windows Accessories- Calculator, Notepad, Paint, and Word pad, Character Map, Windows Explorer.

Unit II (8 Hours) Word Processing:

MS Word: Features, Creating, Opening and Saving Documents in Word, Interface, Toolbars, Ruler, Keyboard 100 Shortcut, Editing, Previewing, Printing,& Formatting a Document, Advanced Features of MS Word, Find & Replace, Using Thesaurus, Using Auto- Multiple Functions, Mail Merge, Handling Graphics, Tables & Charts, Converting a word document into various formats.

Unit III (8 Hours)

Worksheet- MS-Excel: Worksheet basics, creating worksheet, entering into worksheet, heading information, data, text, dates, alphanumeric values, saving worksheet, Opening and moving around in an existing worksheet, Toolbars and Menus, Keyboard shortcuts, Working with single and multiple workbook, working with formulae & cell referencing, Auto sum, Coping formulae, Previewing & Printing worksheet, Graphs and charts, Database, Creating and Using macros.

Unit IV (8 Hours)

MS Power Point: Creating slide show with animations. Auto content Wizard, creating a blank presentation, auto layout, Power point screen: screen layout and Views, insert a new slide, applying design template, changing slide layout, reordering and hiding slides, slide show and editing custom slide. Resizing a text box ,Text box properties, Delete a text box, Bulleted lists, Numbered lists, Adding notes ,Video and Audio, AutoShapes, WordArt, Backgrounds, Slide animation preview, Slide master Header and footer, Slide numbers Date and time.

Unit V (8 Hours)

Database Basics: Databases, Records Fields, data types, Database Types · Library Catalogues
Intranet: Intranet tools: E-mail: Anatomy of e-mail,e-mail address, finding e-mail address, adding signature, attaching files, opening attachments, managing e-mail account.

Reference books:

1. Professional Office Procedure by Susan H Cooperman, Printice Hall
2. Information Technology:Principles , Practices and Oppertunities by James A Senn, Printice Hall
3. Technology and Procedures for Administrative Professionals by Patsy Fulton-Calkins, Thomson Learning

Internet of Things

Unit I: (8 Hours) IOT Concepts

Introduction and meaning – definition – fundamentals – importance – objectives – need - How does it work? - Emergence of IOT - advantages and disadvantages of IOT, Technologies that led to evolution of IOT.

Unit II: (8 Hours) Security, Privacy and Challenges in Internet of Things

Design Challenges - Development Challenges - Security Challenges - Privacy challenges - Other challenges - Trust management.

Unit III: (8 Hours) Emergence of IoT and New Applications

Emergence of IoT - Home - Healthcare - Agriculture - Military - Politics – Construction - other Areas . **Relevance of IOT for the future:** IOT in everyday life - Internet of Everything - IOT and Individual Privacy.

Unit IV: (8 Hours) Smart city using IoT Integration

Smart city - emergence - dimensions - adoption for automation - design strategies - factors - IoT for smart cities (case study Smart city Barcelona).

Unit V: (8 Hours) IOT in Indian scenario

Emergence of IOT in India - IOT and Aadhaar - IOT for health services - IOT for financial inclusion - IOT for rural empowerment.

Reference Books:

1. Arsheep Bahga and Vijay Madiseti - Internet of Things: A Hands-On Approach- Orient Blackswan Private Limited - New Delhi-2015.
2. Prof. Satish Jain and Shashi Singh – Internet of Things and its Applications- BPB Publications-2020.
3. Jeeva Jose - Internet of Things - Khanna Publishing House-2018.

