MANONMANIAM SUNDARANAR UNIVERISTY,
TIRUNELVELI-12
SYLLABUS
UG - COURSES – AFFILIATED COLLEGES
Course Structure for BCA
(Choice Based Credit System)

(with effect from the academic year 2024-2025 onwards)

Semester-I				
Part	**Subject Status**	**Subject Title**	**Subject Code**	**Credit**
I	LANGUAGE	TAMIL/MALAYALAM/HINDI	F1TL11/ F1MY11/ F1HD11	3
II	ENGLISH	ENGLISH	F2EN11	3
III	CORE	PYTHON PROGRAMMING	FCCA11	5
III	CORE	PYTHON LAB	FCCAP1	5
III	ELECTIVE	DISCRETE MATHEMATICS-I	FECA11	3
IV	SEC 1	OFFICE AUTOMATION LAB	FSCAP1	2
IV	FC	FUNDAMENTALS OF INFORMATION TECHNOLOGY	FFCA11	2

Total Marks: 100   Internal Exam: 25 marks + External Exam: 75 marks

A. **Scheme for internal Assessment**:
Maximum marks for written test: **20 marks**
 3 internal tests, each of **I hour** duration shall be conducted every semester.
To the average of the **best two** written examinations must be added the marks scored
in. The **assignment** for 5 marks.

The break up for internal assessment shall be:
Written test- 20 marks; Assignment -5 marks   Total - 25 marks

B. **Scheme of External Examination**
3 hrs. examination at the end of the semester
A – Part : 1 mark question two - from each unit
B – Part : 5 marks question one - from each unit
C – Part : 8 marks question one - from each unit

➢ **Conversion of Marks into Grade Points and Letter Grades**

S.No	Marks	Letter Grade	Grade point (GP)	Performance
1	90-100	O	10	Outstanding
2	80-89	A+	9	Excellent
3	70-79	A	8	Very Good
4	60-69	B+	7	Good
5	50-59	B	6	Above Average
6	40-49	C	5	Pass
7	0-39	RA	-	Reappear
8	0	AA	-	Absent

➢ **<u>C</u>umulative <u>G</u>rade <u>P</u>oint <u>A</u>verage (CGPA)**

$$CGPA = \frac{\Sigma\,(GP \times C)}{\Sigma C}$$

- **GP** = Grade point, **C** = Credit
- CGPA is calculated only for Part-III courses
- CGPA for a semester is awarded on cumulative basis

➢ **Classification**
a) First Class with Distinction   : CGPA ≥ 7.5*****
b) First Class   : CGPA ≥ 6.0
c) Second Class   : CGPA ≥ 5.0 and ≤ 6.0
d) Third Class   :   CGPA≤ 5.0

<p align="center">பொதுத்தமிழ் 1</p>
<p align="center">தமிழ் இலக்கிய வரலாறு 1</p>

அலகு 1: தமிழ் இலக்கிய, இலக்கண வரலாறு அறிமுகம்.

1. **இலக்கணம்:**

அ. தொல்காப்பியம், இறையனார், களவியல் உரை, நம்பியகப் பொருள், புறப்பொருள் வெண்பா மாலை, நன்னூல் தண்டியலங்காரம், யாப்பருக்கலக்காரிகை- நூல்கள்

ஆ. **மொழிப் பயிற்சி - ஒற்றுப்பிழை தவிர்த்தல்**

* வல்லினம் மிகும் இடங்கள்
* வல்லினம் மிகா இடங்கள்
* ஈரொற்று வரும் இடங்கள்
* ஒரு, ஓர் வரும் இடங்கள்
* அது, அஃது வரும் இடங்கள்
* தான், தாம் வரும் இடங்கள்

பயிற்சி: வல்லினம் மிகும் இடங்கள், மிகா இடங்கள் தவறாக வரும்வகையில் ஒரு பத்தி கொடுத்து ஒற்றுப் பிழை திருத்தி எழுதச் செய்தல்.

2. **சங்க இலக்கியம்**-எட்டுத்தொகை, பாத்துப்பாட்டு
3. **அற இலக்கியம்**-பதினெண்கீழ்கணக்கு நூல்கள்
4. **காப்பிய இலக்கியம்** - ஐம்பெருங் காப்பியங்கள், ஐஞ்சிறு காப்பியங்கள், சமயக் காப்பியங்கள்
5. **பக்தி இலக்கியமும்** (பன்னிரு திருமுறைகள், நாலாயிர திவ்வியப் பிரபந்தம் - பகுத்தறிவு இலக்கியமும் (சித்தர் இலக்கியங்கள், புலவர் குழந்தையின் இராவண காவியம்)

அலகு 2: சங்க இலக்கியம்

எட்டுத்தொகை

1. **நற்றிணை**-முதல் பாடல் - நின்ற சொல்லர்
2. **குறுந்தொகை 3 ஆம் பாடல்** - நிலத்தினும் பெரிதே
3. **ஐங்குறுநூறு**-நெல் பல பொலிக! பொன் பெரிது சிறக்க! (முதல் பாடல்)-வேட்கைப் பத்து
4. **கலித்தொகை** -51 - சுடர்தொடிஇக் கேளாய் - குறிஞ்சிக் கலி
5. **புறநானூறு**-189 தென்கடல் வளாகம் பொதுமையின்றி, நாடா கொன்றோ - 187

பத்துப்பாட்டு:

1. முல்லைப்பாட்டு (முழுவதும்)

அலகு 3: அற இலக்கியம்

1. **திருக்குறள்** - அறன் வலியுறுத்தல் அதிகாரம்
2. **நாலடியார்** -பாடல் 131 (கஞ்சியாழகும்)
3. **நான்மணிக்கடிகை** - நிலத்துக்கு அணியென்ப
4. **பழமொழி நானூறு**-தம் நடை நோக்கார்
5. **இனியவை நாற்பது**-37 இளமையை மூப்பு என்று

அலகு 4: காப்பிய இலக்கியம்

1. **சிலப்பதிகாரம்** - வழக்குரைகாதை

2. **மணிமேகலை** - பாத்திரம் பெற்ற காதை
3. **பெரியபுராணம்**- பூசலார் நாயனார்புராணம்
4. **கம்பராமாயணம்**-குகப் படலம்
5. **சீறாப்புராணம்** - மானுக்குப் பிணை நின்ற படலம்
6. **இயேசு காவியம்**-ஊதாரிப்பிள்ளை

அலகு 5: பக்தி இலக்கியமும், பகுத்தறிவு இலக்கியமும்

பக்தி இலக்கியம்:

1. திருநாவுக்கரசர் தேவாரம்-நாமார்க்கும் குடியல்லோம் எனத் தொடங்கும் பாடல் மட்டும்
2. மாணிக்கவாசகர் திருவாசகம் - நமச்சிவாய வா ஆழ்க நாதன்தான் வாழ்க முதல் சிரம்குவிவார் ஓங்குவிக்கும் சீரோன் கழல் வெல்க வரை
3. பொய்கையாழ்வார்-வையந் தகளியா வார்கடலே
4. பூதத்தாழ்வார் - அன்பே தகனியா
5. பேயாழ்வார் - திருக்கண்டேன் பொன்மேனி கண்டேன்
6. ஆண்டாள் - திருப்பாவை மார்களித் திங்கள் (முதல் பாடல்)

பகுத்தறிவு இலக்கியம்;

1. திருமூலர் - திருமந்திரம் (270,271,274,275 285)
2. பட்டினத்தார் - திருவிடை மருதூர் (காடே திரிந்து - எனத் தொடங்கும் பாடல் பா. எண்; 279,280)
3. கடுவெளி சித்தர் - பாபஞ்செய் எதிரி மனமே (பாடல் முழுவதும்)
4. இராவண காவியம் - தாய்மொழிப் படலம் 18 ஏடுகை இல்ல ரில்லை முதல் - 22 செந்தமிழ் வளர்த்தார் வரை

Reference Books:

- மு. வரதராசன், தமிழ் இலக்கிய வரலாறு, சாகித்ய அக்காதமி, புதுடெல்லி
- மது. ச. விமலானந்தன், தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை.
- தமிழண்ணல், புதிய நோக்கில் தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை;.
- தமிழ் இளகிய வரலாறு - முனைவர் சிற்பி பாலசுப்ரமணியன், முனைவர்.சொ. சேதுபதி
- புதி யதமிழ் இலக்கிய வரலாறு - முனைவர் சிற்பி பாலசுப்ரமணியன, நீல. பத்மநாபன்

Web Sources:

- இணைய தமிழ் நூலகம் - சென்னை நூலகம் - Online Tamil Library - ChennaiLibrary.com
- முகப்பு - சிறுகதைகள் (sirukathaigal.com)
- www.tamilvirtualuniversity.org
- Buy tamil books online 10% to 50% discount, Tamil Novels, Tamil Audio Books online - Buy tamil books online - Established 2010 (noolulagam.com)
- www.katuraitamilblogspot.com

MALAYALAM
PAPER I- PROSE, COMPOSITION AND TRANSLATION

Unit 1
This unit focus on the importance of Malayalam fiction, -the origin and development of Malayalam Short story –renaissance in short story—Thakazhi-Basheer-Karoor- -Navothana katha:

For detailed study:
1. Marappavakal- Karoor Neelakantappilla.
2. Uthuppante kinar.-Karoor Neelakantappilla.
3. Ezhunnallathuduty-Karoor Neelakantappilla.

Unit II
Kathayum adhunikathayum- To familiarize – Romanticism -Modernism, Plot and narration in modern short stories

For detailed study:
1. Neippayasam –Madhavikutty
2. Kadaltheerathu-.O.V.Vijayan
3. Radha radhamathram-M.Mukundan

Unit III
Samakala katha– Post modernism- Globalization-Women –Dalit- Cyber – Environmental issues in short stories-

The theme, structure and narrative style of the authors -comparison-

For detailed study:
1. Viyarppadayalangal-Sara Joseph
2. Jwala - Priya .A.S
3. Vartha sareeram –Santhosh Echikkanam
4. Otta vaikkol viplavam –V.J.James

Unit IV
This unit briefs the history of Malayalm Novel- major works, romantic period- of M T Vasudevan Nair , narrative style of Nalukettu- craft and characterization in Nalukettu

Unit V
This unit focus on Translation, Word level and syntactic level and also discuss the writing style of Essay- introduce proverbs and paraphrasing in Malayalam

Recommended Texts
1. Marappavakalum mattu kathakalum – Karoor Neelakantapilla. (only 3 stories (a.)Marappavakal (b)Uthuppante kinar (c) Ezhunnallathuduty))
2. Nalukettu- .Novel -M.T.Vasudevan Nair

Reading list (print and online)
1. Adhunika Malayala Sahithya Charithram Prasthanangalilude – Dr. K.M.George (Ed.)
2. Cherukadha Innale Innu - M.Achuthan
3. Kadha Thedunna Kadha - N.Prabhakaran
4. M.T. Vakkinte Vismayam – V.R.Sudheesh
5. Kadhayum Kalavum –K.S.Ravikumar
6. Malayala Novalilee Desakaalangal- E. Ramkrishnan
7. Maranunna Malayala Noval- K.P. Appan
8. Andhanaya Daivam- P.K.Rajasekharan
9. Shyalee shilppam- Dr.K.M. Prabhakra Warier
10. Bhasha gadhyam- C.V. Vasudeva Bhattathiri
11. Karur Kadha patanam- M.M.Basheer

HINDI - Hindi ka Samanya Gyan, Vyakaran aur Nibandh

Unit I
Buniyadi Hindi
- Swar
- Vyanjan
- Barah Khadi
- Shabd aur
- Vakya Rachna

Unit II
Hindi Shabdavali
- Rishto ke Naam
- Gharelu padartho ke Naam

Unit III
Vyakaran
- Sadharan Vakya aur Sangya
- Sarvanam
- Visheshan
- Kriya aadi shabdo ka prayog

Unit IV
Chote Gadyansh ka Pathan
- Bacho ki Kahaniya (1 to 5)
- Patra-Patrikao mein prakashit Gadyansho ka Pathan

Unit V
Nibandh
- Sant Tiruvalluvar
- E.V.R Thandai Periyar
- Naari Sashaktikaran
- Paryavaran Sanrakshan
- Vibhinna pratiyogi parikshao ke bare mein jaankari dena

Pratiyogi priksha par adharit nibandho dwara bhasha ki kshamta badhane vale prashikshan kary.

Reference Books
1. Hindi ke Avyay Vakyansh – Chaturbhuj Sahay
2. Subodh Hindi Vyakaran – Phoolchand Jain
3. Sankshipt Hindi Vyakaran – Kamta Prasad
4. Vyavaharik Hindi – Nagappa
5. Abhinav Hindi Vyakran – Nagappa
6. Saral Hindi Vyakaran – Shyamchandra Kapur
7. Vyakaran Pradeep – Ramdev
8. Laghu Bal Kathaye – Ramashankar

9. Manoranjak Kahaniya – Premchand
10. CONCISE GRAMMAR OF THE HINDI LANGUAGE - H.C Scholberg
11. Hindi Grammar – Edwin Greaves

Related Online Contents (MOOCs, SWAYAM, NPTEL, YouTube, Websites, etc.)

1. fr#oYyqoj%https://bharatdiscovery.org/india/%E0%A4%A4%E0%A4%BF%E0%A4%B0%E0%A5%81%E0%A4%B5%E0%A4%B2%E0%A5%8D%E0%A4%B2%E0%5%81%E0%A4%B5%E0%A4%B0#:~:text=%E0%A4%A4%E0%A4%BF%E0%A4%B0%E0%A5%81%E0%A4%B5%E0%A4%B2%E0%A5%8D%E0%A4%B2%E0%A5%81E0%A4%B5%E0%A4%B0%20(%E0%A4%85%E0%A4%82%E0%A4%97%E0%5%8DE0%A4%B0%E0%A5%87%E0%A4%9C%E0%A4%BC%E0%A5%80%3A%20Thiruvaluvar)%20%E0%A4%A6%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%BF%E%A4%A3,%E0%A4%AA%E0%A4%BF%E0%A4%A4%E0%A4%BE%20E0%A4%AE%E0%A5%87%E0%A4%82%20%E0%A4%B5%E0%A4%BF%E0%A4%B6%E0%A5%8D%E0%A4%B5%E0%A4%BE%E0%A4%B8%20%E0%A4%B0%E0%A4%96%E0%A4%A4%E0%A5%87%20%E0%A4%A5%E0%A5%87%E0%A5%A4

2. bZ-os-jkelkeh
https://hi.wikipedia.org/wiki/%E0%A4%AA%E0%A5%87%E0%A4%B0%E0%A4%BF%E0%A4%AF%E0%A4%BE%E0%A4%B0#:~:text=%E0%A4%87%E0%A4%B0%E0%A5%8B%E0%A4%A1%20%E0%A4%B5%E0%A5%87%E0%A4%82%E0%A4%95%E0%A4%9F%20%E0%A4%A8%E0%A4%BE%E0%A4%AF%E0%A4%95%E0%A4%B0%20%E0%A4%B0%E0%A4%BE%E0%A4%AE%E0%A4%BE%E0%A4%B8%E0%A4%BE%E0%A4%AE%E0%A5%80%20(17,%E0%A4%B5%E0%A4%BE%E0%A4%B2%E0%A5%87%20%E0%A4%B9%E0%A4%BF%E0%A4%A8%E0%A5%8D%E0%A4%A6%E0%A5%81%E0%A4%A4%E0%A5%8D%E0%A4%B5%20%E0%A4%95%E0%A4%BE%20%E0%A4%B5%E0%A4%BF%E0%A4%B0%E0%A5%8B%E0%A4%A7%20%E0%A5%E0%A4%BE%E0%A5%A4

3. ukjh l"kfDrdj.k%
https://www.hindikiduniya.com/essay/women-empowerment-essayinhindi/#:~:text=%E0%A4%AE%E0%A4%B9%E0%A4%BF%E0%A4%B2%E0%A4%BE%20%E0%A4%B8%E0%A4%B6%E0%A4%95%E0%A5%8D%E0%A4%A4%E0%A4%BF%E0%A4%95%E0%A4%B0%E0%A4%A3%20%E0%A4%95%E0%A5%8D%E0%A4%AF%E0%A4%BE%20%E0%A4%B9%E0%A5%88%20%3F&text=%E0%A4%AE%E0%A4%B9%E0%A4%BF%E0%A4%B2%E0%A4%BE%20%E0%A4%B8%E0%A4%B6%E0%A4%95%E0%A5%8D%E0%A4%A4%E0%A4%BF%E0%A4%95%E0%A4%B0%E0%A4%A3%20%E0%A4%95%E0%A5%8B%20%E0%A4%AC%E0%A5%87%E0%A4%B9%E0%A4%A6%20%E0%A4%86%E0%A4%B8%E0%A4%BE%E0%A4%A8,%E0%A4%B8%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%AE%20%E0%A4%AC%E0%A4%A8%E0%A4%BE%E0%A4%A8%E0%A4%BE%20%E0%A4%AE%E0%A4%B9%E0%A4%BF%E0%A4%B2%E0%A4%BE%20%E0%A4%B8%E0%A4%B6%E0%A4%95%E0%A5%8D%E0%A4%A4%E0%A4%BF%E0A%95%E0%A4%B0%E0%A4%A3%20%E0%A4%B9%E0%A5%88%E0%A5%A4

4. i;kZoj.k laj{k.k%
a.https://hi.wikipedia.org/wiki/%E0%A4%AA%E0%A4%B0%E0%A5%8D%E0%A4%AF%E0%A4%BE%E0%A4%B5%E0%A4%B0%E0%A4%A3_%E0%A4%B8%E0%A4%88%E0%A4%B0%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%A3#:~:text=%E0%A4%AA%E0%A4%B0%E0%A5%8D%E0%A4%AF%E0%A4%BE%E0%A4%B5%E0%A4%B0%E0%A4%A3%20%E0%A4%B8%E0%A4%82%E0%A4%B0%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%A3%20%E0%A4%95%E0%A4%BE%20%E0%A4%B8%E0%A4%AE%E0%A4%B8%E0%A5%8D%E0%A4%A4%20%E0%A4%AA%E0%A5%8D%E0%A4%B0%E0%A4%BE%E0%A4%A3%E0%A4%BF%E0%A4%AF%E0%A5%8B%E0%A4%82,%E0%A4%AA%E0%A5%83%E0%A4%A5%E0%A5%8D%E0%A4%B5%E0%A5%80%20%E0%A4%B8%E0%A4%AE%E0%A5%8D%E0%A4%AE%E0%A5%87%E0%A4%B2%E0%A4%A8'%20%E0%A4%86%E0%A4%AF%E0%A5%8B%E0%A4%9C%E0%A4%BF%E0%A4%A4%20%E0%A4%95%E0%A4%BF%E0%A4%AF%E0%A4%BE%20%E0%A4%97%E0%A4%AF%E0%A4%BE%E0%A5%A4

b.http://gadyakosh.org/gk/%E0%A4%86%E0%A4%88%E0%A4%AF%E0%A5%87!_%E0%A4%AA%E0%A4%B0%E0%A5%8D%E0%A4%AF%E0%A4%BE%E0%A4%B5%E0%A4%B0%E0%A4%A3_%E0%A4%AC%E0%A4%9A%E0%A4%BE%E0%A4%8F%E0%A4%81_/_%E0%A4%85%E0%A4%A8%E0%A5%8D%E0%A4%A4%E0%A4%B0%E0%A4%BE_%E0%A4%95%E0%A4%B0%E0%A4%B5%E0%A4%A1%E0%A4%BC%E0%A5%87

PAPER II –GENERAL ENGLISH - I

Learning Objectives

- To enable learners to acquireself awareness and positive thinking required in various life situations.
- To help them acquire the attribute of empathy
- To assist them in acquiring creative and critical thinking abilities
- To enable them to learn the basic grammar
- To assist them in developing LSRW skills

Unit I
SELF-AWARENESS (WHO)&POSITIVE THINKING (UNICEF)
Life Story

1.1 Chapter 1 from MalalaYousafzai, I am Malala
1.2 An Autobiography or The Story of My Experiments with Truth (Chapters 1, 2 & 3) M.K.Gandhi

Poem

1.3 Where the Mind is Without Fear – Gitanjali 35 – Rabindranath Tagore
1.4 Love Cycle – Chinua Achebe

Unit II
EMPATHY
Poem

2.1 Nine Gold Medals – David Roth
2.2 Alice Fell or poverty – William Wordsworth

Short Story

2.3 The School for Sympathy – E.V. Lucas
2.4 Barn Burning – William Faulkner

Unit III
CRITICAL & CREATIVE THINKING
Poem

3.1 The Things That Haven't Been Done Before – Edgar Guest
3.2 Stopping by the Woods on a Snowy Evening – Robert Frost

Readers Theatre

3.3 The Magic Brocade – A Tale of China
3.4 Stories on Stage – Aaron Shepard (Three Sideway Stories from Wayside School" by Louis Sachar)

Unit IV
Part of Speech

4.1 Articles
4.2 Noun
4.3 Pronoun
4.4 Verb
4.5 Adverb
4.6 Adjective
4.7 Preposition

Unit V
Paragraph and Essay Writing
      5.1 Descriptive
      5.2 Expository
      5.3 Persuasive
      5.4 Narrative

Text books (Latest Editions)

1. MalalaYousafzai. I am Malala, Little, Brown and Company, 2013.
2. M.K. Gandhi. An Autobiography or The Story of My Experiments with Truth (Chapter – I), Rupa Publications, 2011.
3. Rabindranath Tagore. "Gitanjali 35" from Gitanjali (Song Offerings): A Collection of Prose Translations Made by the Author from the Original Bengali. MacMillan, 1913.
4. N.Krishnasamy. Modern English: A Book of Grammar, Usage and Composition Macmillan, 1975.
5. Aaron Shepard. Stories on Stage, ShepardPublications, 2017.
6. J.C. Nesfield. English Grammar Composition and Usage, Macmillan, 2019.

Web Resources

1. MalalaYousafzai. I am Malala (Chapter 1) https://archive.org/details/i-am-malala
2. M.K Gandhi. An Autobiography or The Story of My Experiments with Truth(Chapter-1)- Rupa Publication, 2011 https://www.indiastudychannel.com/resources/146521-   Book-Review-An-Autobiography-or-The-story-of-my-experiments-with-Truth.aspx
3. Rabindranath Tagore. "Gitanjali 35" from Gitanjali (Song Offerings)https://www.poetryfoundation.org/poems/45668/gitanjali-35
4. Aaron Shepard.Stories on Stage, Shepard Publications, 2017 https://amzn.eu/d/9rVzlNv
5. JC Nesfield. Manual of English Grammar and Composition. https://archive.org/details/in.ernet.dli.2015.44179

PYTHON PROGRAMMING

Learning Objectives

- To understand the concepts of Python programming.
- To develop Python program using control, iterative statements.
- To impart knowledge on list, dictionaries and tuples.
- To get knowledge on modules.
- To know about file handling.

UNIT I

Basics of Python Programming: History of Python-Features of Python-Literal-Constants-Variables - Identifiers–Keywords-Built-in Data Types-Output Statements – Input Statements-Comments – Indentation- Operators-Expressions-Type conversions.

Python Arrays: Defining and Processing Arrays – Array methods.

UNIT II
Control Statements: Selection/Conditional Branching statements: if, if-else, nested if and if-elif-else statements. Iterative Statements: while loop, for loop, else suite in loop and nested loops. Jump Statements: break, continue and pass statements.

UNIT III
Functions: Function Definition – Function Call – Variable Scope and its Lifetime-Return Statement. Function Arguments: Required Arguments, Keyword Arguments, Default Arguments and Variable Length Arguments- Recursion. Python Strings: String operations- Immutable Strings - Built-in String Methods and Functions - String Comparison. Modules: import statement- The Python module – dir() function – Modules and Namespace – Defining our own modules.

UNIT IV
Lists: Creating a list -Access values in List-Updating values in Lists-Nested lists - Basic list operations-List Methods. Tuples: Creating, Accessing, Updating and Deleting Elements in a tuple – Nested tuples– Difference between lists and tuples. Dictionaries: Creating, Accessing, Updating and Deleting Elements in a Dictionary – Dictionary Functions and Methods - Difference between Lists and Dictionaries.

UNIT V
Python File Handling: Types of files in Python - Opening and Closing files-Reading and Writing files: write() and writelines() methods- append() method – read() and readlines() methods – with keyword – Splitting words – File methods - File Positions-Renaming and deleting files.

Text Books
1. Reema Thareja, "Python Programming using problem solving approach", First Edition, 2017, Oxford University Press.
2. Dr. R. Nageswara Rao, "Core Python Programming", First Edition, 2017, Dream tech Publishers.

Reference Books
1. VamsiKurama, "Python Programming: A Modern Approach", Pearson Education.
2. Mark Lutz, "Learning Python", Orielly.
3. Adam Stewarts, "Python Programming", Online.
4. Fabio Nelli, "Python Data Analytics", APress.
5. Kenneth A. Lambert, "Fundamentals of Python – First Programs", CENGAGE Publication.

Web Resources
1. https://www.programiz.com/python-programming
2. https://www.guru99.com/python-tutorials.html
3. https://www.w3schools.com/python/python_intro.asp
4. https://www.geeksforgeeks.org/python-programming-language/
5. https://en.wikipedia.org/wiki/Python_(programming_language)

PYTHON LAB

Course Objectives:
- Be able to design and program Python applications.
- Be able to create loops and decision statements in Python.
- Be able to work with functions and pass arguments in Python.
- Be able to build and package Python modules for reusability.
- Be able to read and write files in Python.

EXERCISES
1. Program using variables, constants, I/O statements in Python.
2. Program using Operators in Python.
3. Program using Conditional Statements.
4. Program using Loops.
5. Program using Jump Statements.
6. Program using Functions.
7. Program using Recursion.
8. Program using Arrays.
9. Program using Strings.
10. Program using Modules.
11. Program using Lists.
12. Program using Tuples.
13. Program using Dictionaries.
14. Program for File Handling.

DISCRETE MATHEMATICS - I

Unit – I
RELATIONS

Introduction to Relations – Binary relation – Classification of Relations – Composition of Relations – Inverse of Relation – Closure operation on Relations – Matrix representation of Relation - digraphs.

Unit – II
FUNCTIONS

Introduction to Functions – Addition and Multiplication of Functions- Classifications of Functions – Composition of Function – Inverse Function.

Unit – III
MATHEMATICAL LOGIC

Introduction – Statement (Propositions) – Laws of Formal Logic –Basic Set of Logical operators/operations - Propositions and Truth Tables – Algebra Propositions - Tautologies and Contradictions – Logical Equivalence – Logical Implication – Normal Forms.

Unit – IV
MATRIX ALGEBRA

Introduction – Definition of a Matrix - Types of Matrices – Operations on Matrices – Related Matrices – Transpose of a Matrix – Symmetric and Skew-symmetric Matrices –Complex Matrix– Conjugate of a Matrix – Determinant of a Matrix – Typical Square Matrices – Adjoint and Inverse of a Matrix – Singular and Non-singular Matrices – Adjoint of a Square Matrix – Properties of Adjoint of a Matrix – Properties of Inverse of a Matrix.

Unit – V
GRAPH

Introduction – Graph and Basic Terminologies – Types of Graphs – Sub Graph and Isomorphic Graph – Operations on Graphs – Representation of Graph.

Text Book
1. DISCRETE MATHEMATICS, Swapan Kumar Chakraborty and BikashKanti Sarkar, OXFORD University Press.

Reference Books:
1. Discrete Mathematics, Third Edition, Seymour Lipschutz and Marc Lars Lipson, Tata McGraw Hill Education Private Limited.
2. Discrete Mathematical Structures with Applications toComputer Science by J.P.Tremblay, R.Manohar TMH edition

Web Resource
1. https://www.tutorialspoint.com › discrete_mathematics

OFFICE AUTOMATION LAB

Course Objectives
- Understand the basics of computer systems and its components.
- Understand and apply the basic concepts of a word processing package.
- Understand and apply the basic concepts of electronic spreadsheet software.
- Understand and create a presentation using PowerPoint tool.
- Understand and apply the basic concepts of database management system.

Exercises MS – Word
1. Prepare a word document for Spell checking and Thesaurus.
2. Find a word and Replace with another in a document.
3. Insert Header with College Name, Footer with Page No., and Footnote in a document.
4. Insert mathematical symbols using Microsoft equation 3.0.
5. Preparing Newspaper format (Apply Alignment, Font, Property, Line spacing,Picture Format).
6. Prepare a Bio-Data and insert the contents of qualification within the table.
7. Mail Merge

MS – Excel
1. Apply formulas and functions.
2. Prepare a chart for population growth.
3. Apply ascending and descending order.
4. Apply auto format.

MS – PowerPoint
1. Create a power point presentation with 3 slides.
2. Create a design template with 3 slides.
3. Create a presentation with animation.
4. Create a power point presentation with 4 slides. Set slide transition time of 3seconds and display your presentation.

MS – Access 1.Create an employee database. 2.Create a mark statement for a class of 20 students. Find total, average and rank the marks. Give proper headings. 3.Create a report.

Web Resources
1. https://www.udemy.com/course/office-automation-certificate-course/
2. https://www.javatpoint.com/automation-tools

FUNDAMENTALS OF INFORMATION TECHNOLOGY

Learning Objectives
- Understand the basic concepts and terminology of information technology
- Have a basic understanding of personal computers and their operation
- Be able to identify data storage and its usage
- Get great knowledge of software and its functionalities
- Understand about operating systems and their uses

Nesamony Memorial Christian College, Marthandam

UNIT I

Introduction to Computers Introduction, Definition, .Characteristics of computer, Evolution of Computer, Block Diagram of a computer, Generations of Computer, Classification ofComputers, Applications ofComputer, Capabilities and limitations of computer

UNIT II

Basic Computer Organization Role of I/O devices in a computer system. Input Units: Keyboard, Terminals and its types. Pointing Devices, Scanners and its types, Voice Recognition Systems, Vision Input System, Touch Screen, Output Units: Monitors and its types. Printers: Impact Printers and its types. Non Impact Printers and its types, Plotters, types of plotters, Sound cards, Speakers.

UNIT III

Storage Fundamentals Primary Vs Secondary Storage, Data storage & retrieval methods. Primary Storage: RAM ROM, PROM, EPROM, EEPROM. Secondary Storage: Magnetic Tapes, Magnetic Disks. Cartridgetape, hard disks, Floppy disks Optical Disks, Compact Disks, Zip Drive, Flash Drives

UNIT IV

Software Software and its needs,Types of S/W. System Software: Operating System, Utility Programs Programming Language: Machine Language, Assembly Language, High Level Language their advantages & disadvantages. Application S/W and its types: Word Processing, Spread Sheets Presentation, Graphics, DBMS

UNIT V

Operating System Functions, Measuring System Performance, Assemblers, Compilers and Interpreters.Batch Processing, Multiprogramming, Multi Tasking, Multiprocessing, Time Sharing, DOS, Windows,Unix/Linux.

Text Books
1. Anoop Mathew, S. KavithaMurugeshan (2009), " Fundamental of Information Technology", Majestic Books.
2. Alexis Leon, Mathews Leon," Fundamental of Information Technology", 2nd Edition.
3. S. K Bansal, "Fundamental of Information Technology".

Reference Books
1. Bhardwaj Sushil Puneet Kumar, "Fundamental of Information Technology"

2. GG WILKINSON, "Fundamentals of Information Technology", Wiley-Blackwell
3. A Ravichandran , "Fundamentals of Information Technology", Khanna Book Publishing

Web Resources

1. https://testbook.com/learn/computer-fundamentals
2. https://www.tutorialsmate.com/2020/04/computer-fundamentals-tutorial.html
3. https://www.javatpoint.com/computer-fundamentals-tutorial
4. https://www.tutorialspoint.com/computer_fundamentals/index.htm
5. https://www.nios.ac.in/media/documents/sec229new/Lesson1.pdf