PUNE VIDYARTHI GRIHA'S COLLEGE OF ENGINEERING & TECHNOLOGY

ACES

PRESENTS

GENESIS

2020-21

ATTENTION

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Academics and Preparation Tips for Exams

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College Subjects, Exams, How to Prepare?

Overall Academic Syllabus:

- FE
- SE
- TE
- BE

Exams and Preparation:

- Offline
- Online

FE

- **Programming & Python Solving**- Basics of python,decision control statements, Functions & Modules, Strings, OOP, File handling
  Flow chart, pseudo code, implementation of algorithms
- **Basic Electrical Engineering**-Electromagnetism, Electrostatics, AC DC circuits, Work Power Energy,etc
- **System in Mechanical Engineering**- Energy sources & its conversions, thermal engg, vehicle systems,etc
- Workshop
- M I, Physics
- **Basic Electronics Engineering**-Principle of Electronics, PN junction, Transistors, Logic Gates, Sensors,etc
- **Engineering Mechanics**-Understanding and calculating Force Systems, Equilibrium, Kinematics & Kinetics of Particle,etc
- **Engineering Graphics**-Engineering drawing-line types, geometrical construction , 2D 3D, Curves, Projection,etc
- M II, Chemistry
- PBL(Project Based Learning)

SE

- **OOP (Object Oriented Programming)**-C++ language, concept of data abstraction,encapsulation,inheritance, polymorphism,files, exception handling,templates,etc.
- **Fundamentals of Data Structure**- Operations on array,searching and sorting algorithms- bubble sort, insertion sort,etc, linked list, stack, queue- create, traverse, add, delete,etc
- **DELD (Digital Electronics & Logic Design)**- fundamentals and implementation of digital logic designs, combinational and sequential circuits, logic families,etc

- M III
- **Data Structures & Algorithms**- Hashing, trees, graphs, search tree, indexing, file organization
- **Microprocessor**- Introduction to 80386 microprocessor,bus cycles, system architecture, memory management,etc
- **PPL (Principles of Programming Languages)**- Programming fundamentals, Java concepts

TE

- **ISEE (Information Systems & Engineering Economics)**- role, usage & importance of Information System to an organization.
- **SEPM (Software Engineering & Project Management)**- Software process models,design engineering, project management,testing,etc
- **DBMS (Database Management System)**- SQL queries, ER diagram,NoSQL Database
- **CN (Computer Networks)**- OSI layers, Networking standards, protocols and technologies.
- **SDL (Skills Development Lab)**- Mini project (Building Android application using Android Studio)
- **ESIoT (Embedded System & Internet of Things)**- Fundamentals of IoT and embedded systems
- **Web Technology**- web based technologies-HTML,CSS,client & server side, frameworks,etc.
- **SPOS-**System Programming, Compilers & tools-LEX,YACC, Operating systems,etc
- **Seminar-** Selecting Domain, Submitting 3 topics reference paper, Research & PPT, generating report.

BE

- **High Performance Computing**
- **Artificial Intelligence & Robotics**
- **Data Analytics**
- **Machine Learning**
- **Information & Cyber Security**
- **Final BE Project**

Elective I	Elective II
Digital Signal Processing	Distributed System
Software Architecture & Design	Software Testing & Quality Assurance
Pervasive & Ubiquitous Computing	Operations Research
Data Mining & Warehousing	Mobile Communication

Elective III	Elective IV
Advanced Digital & Signal Processing	Software Defined Networks
Compilers	Human Computer Interface
Embedded & Real Time Operating Systems	Cloud Computing
Soft Computing & Optimization Algorithm	Open Elective

Exam Patterns :

1. Offline exam pattern -
    a. Total time - (3 credit score - 2 hours and 4 credit score - 2.5 hours)
    b. Total marks - 70 marks
    c. Total questions - 8/10 questions (Each question has some sub questions)
    d. Need to solve any 1 of the 2 consecutive questions (Eg. Q1 or Q2)

1. Online exam pattern -
    a. Total time - 1 hour
    b. Total marks - 50 marks
    c. Total questions - 60
    d. 50 correct answers will be considered

1. Practical exam -
    a. Total time - 2 hours
    b. Total marks - 50 marks
    c. Total problems - All the problems from the assignments
    d. Problems are shuffled and we have to pick up one

Exams, How to prepare?

1. Offline exam -
    a. Important concepts
    b. Formulae
    c. Exceptions
    d. Reference books
    e. Previous years question bank
    f. Easy solutions / Decode

1. Online exam -
    a. Screening
    b. Finding
    c. Connecting

1. Practical exam -
    a. Perform all the assignments given in the labs
    b. Understand the flow of the assignments
    c. Prepare the questions based on the assignments