ACE Engineering Academy
Leading Institute for ESE/GATE/PSUs

UTTAR PRADESH PUBLIC SERVICE COMMISSION

Assistant Engineer

Online Test Series

Electrical Engineering - Schedule

No.of Tests : 16	
Subject Wise Tests	12
Full Length Mock Tests	4

All tests will be Active upto UPPSC-AE Examination.

Subject wise Tests

(No.of Questions: 50, Max Marks: 150 and Time duration: 60 Minutes)

Test No	Name of the Subject	Date of Activation
Test-01 (Paper-I)	**Networks and Systems + E.M. Theory:** Steady-state and Transient-state Analysis of systems, Thevenin's-, Norton's-, Superposition- and Maximum Power Transfer-theorems, Driving point Transfer functions, Two-port networks, Laplace and Fourier transforms and their applications in Network analysis, Z-transforms for discrete systems, R-L, R-C & L-C network synthesis. Analysis of electrostatic and magnetostatic fields, Laplace, Poission and Maxwell equations, solution of boundary value problems, electromagnetic wave propagation, ground and space waves, Propagation between Earth Station and Satellites.	01-12-2021
Test-02 (Paper-II)	**Power Electronics and Drives:** Semiconductor, power, diodes, transistors, thyristors, triacs, GTOs, MOSFETs and IGBTs static characteristics and principles of operation, triggering circuits single phase and threephase controlled rectifiers-fully controlled and half controlled, smoothing and filters regulated power supplies, DC-DC choppers and inverters, speed control circuits for DC and A.C. drives, Basics of electric drives: types, quadrant operation, reversing and braking of electric motors, estimation of power ratings, traction motors.	02-12-2021
Test-03 (Paper-I)	**Control systems:** Mathematical modelling of dynamic linear continuous systems, Block diagrams and Signal flow graphs, time-response specifications, steady-state error, Routh Hurwitz criterion, Nyquist techniques, Root Loci, Bode Plots, Polar Plot, and stability analysis, Lag-, Lead-, Lag-Lead-compensation, state-space modelling, state transition matrix, controllability and observability	03-12-2021
Test-04 (Paper-II)	**Digital Electronics + Microwaves and Communication systems + Analog Communication basics:** Boolean algebra, logic gates, combinational and sequencial logic circuits, multiplexers, muiltivibrators, sample and hold circuits, A/D and D/A converters, basics of filter circuits and applications, active filters, semiconductor memories. Electromagnetic wave in guided media, wave guide components, resonators, microwave tubes, microwave generators and amplifiers. Modulation and demodulation, noise and bandwidth, transmitters and receivers, signal to noise ratio, digital communication basics, sampling, quantizing, coding frequency- and time-domain multiplexing, sound and vision broadcast, antennas, transmission lines at audio and ultra-high frequencies.	04-12-2021
Test-05 (Paper-I)	**Power System Analysis and Design:** Line parameters and calculations, Performance of Transmission lines, Mechanical design of overhead lines and Insulators, Corona and radio interference Parameters of single- and three-core Cables, Bus admittance matrix, Load flow equations and methods of solutions, Fast-decoupled load flow, Balance- and Unbalanced-faults analysis, Power system stability, Power system transients and travailing Waves, EHV Transmission, HVDC transmission, Concepts of FACTS, Voltage Control and Economic operation, Concepts of distributed generation, solar and wind power, smart grid concepts.	05-12-2021
Test-06 (Paper-II)	**Induction and special Machines:** Three-phase Induction motors Rotating magnetic field, Torque-slip characterstics, Equivalent Circuit and determination of its parameters, starters, speed control, Induction generators. Single phase Induction motors: Theory and phasor diagrams, characteristics, starting and applications, repulsion motor, series motor: E.m.f. equation and phasor diagram and performance, servomotors, stepper motors, reluctance motors, brushless DC motors (BLDC).	06-12-2021
Test-07 (Paper-I)	**Elements of Electrial Machines:** General concepts of E.m.f., m.m.f., and torque in rotating machines, DC Machines: motor and generator characteristics, equivalent circuits, commutation and amature reaction, starting and speed controls of motors; Synchronous Machines: performance, regulation, Parallel operation of generators, motor starting, characteristics and applications, Transformers: phasor-diagram and equivalent circuit, efficiency, and voltage regulation, auto-transformers, 3-phase transformers.	07-12-2021
Test-08 (Paper-II)	**Power system protection and Switch gear:** Methods of Arc Extinction, Restriking voltages and recovery voltage, testing of circuit breakers, Protective relays, protective schemes for power system equipment, surges in transmission lines and protection.	08-12-2021
Test-09 (Paper-I)	**Measurement + Elements of Electronics:** Basic methods of measurement, Precision and standards, error analysis, Bridges and Poteniometers; moving coil, Moving iron, dynamometer and induction type instruments, measurement of voltage, current, power, energy, and power factor, Instrument transformers, digital voltmeters and multimeters, phase-, time- and frequency measurement, Q-meters Oscilloscopes, Basics of sensors, and data acquisition system, Instrumentation systems for pressure and temperature measurements. Basics of semiconductor diodes, BJT, FET and their chracteristics, different types of transistors and FET amplifiers equivalent circuits and frequency response, feedback oscillators, colpitts oscillator and Hartley Oscillator, Operational amplifiers-chracteristics and applications.	09-12-2021
Test-10 (Paper-II)	**Numerical Methods + Electrical Engineering Materials + Elements of Microprocessors:** Solution of non liner algebraic equations, single and multisteps methods for solution of differential equations. Crystal structure and defects, conducting, insulating and magneting Materials, super-conductors. Data representation and representation of integer and floating point-numbers. Organization and programming of a microprocessor, ROM and RAM memories CPU of a microcomputer, interfacing memory and I/O devices, Programmable peripheral and communication interface.Application of microprocessors	10-12-2021
Test-11 (Paper-I)	**General Hindi**	11-12-2021
Test-12 (Paper-II)	**General studies**	12-12-2021

(No.of Questions: 25, Max Marks: 75 and Time duration: 30 Minutes)

Full Length Mock Test

(No.of Questions: 125, Max Marks: 375 and Time duration: 150 Minutes)

Test No	Name of the Mock	Date of Activation
Test-13 (Paper-I)	Full Length Mock Test-01	22-12-2021
Test-14 (Paper-II)	Full Length Mock Test-02	29-12-2021
Test-15 (Paper-I)	Full Length Mock Test-03	05-01-2022
Test-16 (Paper-II)	Full Length Mock Test-04	12-01-2022

Note:

The Syllabus considered as per Notifivcation of UPPSC. ACE Engineering Academy does not take any responsibility for deviations in syllabus in the final UPPSC exam.

As per Notification of UPPSC each question carries '3' marks and negative marking of 1/3rd (i.e. one mark) for each wrong answer.

The Dates of above Tests may Change according to the UPPSC Exam schedule.

Tests will be activated at 6:00 pm on scheduled day