Semester -V

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Subject **Subject Title** Credit Theory Practical Code Total Total L Т Р Entrepreneurship External Internal (100)External Internal **BT-1501** & IPR (70)(30) Min: 40 (Nil) (Nil) 3 Nil 1 (D Grade) **Duration of Theory (Externals): 3 Hours** Theory Internal- Max Marks: 30 Best of Two Mid Semester Test -Assignment/Quiz/Attendance -Max Marks: 20 Max. Marks: 10 **Practical Internal Max Marks: Nil** Assignment/ Quiz/Attendance -Lab work & Sessional – Max. Marks: Nil Max Marks: Nil **Pre-Requisite** Nil **Course Outcome** 1. Students will be able to define, identify and/or apply the principles of entrepreneurial and family business; Students will be able to define, identify and/or apply the principles of viability of 2. businesses, new business proposals, and opportunities within existing businesses Students will be able to define, identify and/or apply the principles of developing pro 3. forma financial statements

Unit	Contents (Theory)	Marks Weightage
Ι	Entrepreneurship : Definition and functions of an entrepreneur, qualities of a good entrepreneur; role of entrepreneur in economic development; theories of entrepreneur, socio, economic, cultural and psychological; entrepreneur traits and behavior, roles in economic growth, employment, social stability, export promotion and indigenization, creating a venture, opportunity analysis competitive and technical factors, sources of fund. Forms of business organizations/ownership - formation of a company - procedures and formalities for setting up of new industry-sources of information to contact for what and where.	14
П	Management: Importance, definition and functions; dimensions of organizations, size/specialization, behavior formalization, authority centralization, departmentalization, spam and line of control, technology and minzberg organization typology, line, staff & matrix organization. Motivation Theories - Maslow, Mc Cullen - motivation model - need, want, motive and behavior – attitude towards work - self assessment and goal setting - achievement, motivation and behavior measurement, swot analysis and analysis - stress and conflict management; with uncertainty; creativity and innovation.	14
Ш	Marketing: Importance, definition, core concepts of need want and demand, project identification and formulation: sources of information - opportunity guidance - choice of technology and its evaluation; consumer behavior; market survey and research; preliminary project report, detailed project report, assessing viability and feasibility of a report. Exchange &relationships, product value, cost and satisfaction (goods and services) marketing environment; selling, marketing and societal marketing concepts; four p's, product, price, placement, promotion. Finance: Nature and scope, forms of business ownerships, balance sheet, profit and loss account, fund flow and cash flow statements, breakeven point (bep) and financial ratio analysis, pay-back period, npv and capital budgeting. Subsidies and concessions for ssi - role of state and central government agencies in promotion of small scale industry	14
IV	Concept of Property: Theories of property, types of intellectual property- origin and development, theories of intellectual property rights, need for protecting intellectual property, commercialization of intellectual property rights by licensing, determining financial value of intellectual property rights, negotiating payments terms in intellectual property transaction	14

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Programme: Bachelor of Technology

Semester –V

V	Introduction to Patent Law: (a) Paris convention, (b) Patent cooperation treaty, (c) Wto- trips, indian patent law, the patents act, 1970, patentable subject matter, patentability criteria, procedure for filing patent applications, patent granting procedure, revocation, patent infringement and remedies, relevant provisions of the biological diversity act, 2002, access and benefit sharing issues	14

Text Book/References Books/ Websites:

1. Tandon B.C.; Environment and Entrepreneur; Asian Publishers, New Delhi.

2. P. C. Jain ; Handbook for New Entrepreneurs; Oxford University Press

Koved From Academic Court 3. Baporikar, N; Entrepreneurship and Small Industry; Himalaya Publishing House

Suggested List of Laboratory Experiments :- (Expandable): Nil

School of Research and Technology

Semester –V

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Subject Code	Subject Title	(Cred	it		Theory		Practical		
	Electromagnetic Theory	L	Т	Р) Esternel	T A T	Total (100)	Entonnol	Internal (Nil)	Total
BT-1522		3	1	-	(70)	(30)	Min: 40 (D Grade)	(Nil)		Nil
Duration of Theory (Externals): 3 Hours										
Theory Internal- Max Marks: 30			B	Best of Two Mid Semester Test –		Assignment/Quiz/Attendance –				

Theory Internal- Max Marks. 50	Dest of 1 wo who beliester 1 est	Assignment Quiz Attendance
	Max Marks: 20	Max. Marks: 10
Practical Internal Max Marks: 15	Lab work & Sessional –	Assignment/Quiz/Attendance –
	Max Marks: 10	Max. Marks: 05

Pre-Requisite	To understand, develop and design various applications involving electromagnetic fields.
Course Outcome	1. Apply vector calculus to static electric-magnetic fields.
	2. Analyze Maxwell's equation in different forms
	3. Analyze the nature of electromagnetic wave propagation in guided medium.

Unit	Contents (Theory)	Marks Weightage
Ι	Coordinate System and Vector Fields: Cartesian coordinate system, Cylindrical Coordinate System, Spherical Coordinate System, Transformation of Coordinate system, vector algebra, Line integral, Surface integral and volume integral, Gradient, Divergence, Curl, Green's theorem, Divergence theorem, Stoke's theorem.	14
II	Electrostatic Fields: Coulomb's law, Gauss's law and its application, Electric Field Intensity, Electric Flux Density, Electrostatic Potential and work, Line Charge, Surface Charge, Volume Charge, Poisson's and Laplace's equations ,Equation of continuity, Conductors,Dieletrics, Capacitance,Boundary conditions for Electrostatic field.	14
ш	Static Magnetic Fields: Biot-Savart Law and its Application, Ampere's Law and its Application, Magnetic Field intensity, Magnetic field due to straight conductor, circular loop, infinite sheet Magnetic Flux Density, Scalar and Vector Potential, Magnetic forces, Magnetic Torque, Magnetic Dipole Moment, Energy stored in Magnetic field, Inductance and Mutual Inductance Boundary conditions for magnetic field.	14
IV	Time Varying Fields and Maxwell's Equations: Faraday's law of electromagnetic, Displacement Current, , Maxwell's equations in Differential and Integral Form, Maxwell's equations in free space, Maxwell's equations for harmonically varying, static and steady field, time-harmonic fields.	14
V	Wave Equation and Plane Waves: Helmholtz wave equation, Solution to wave equations and plane waves, Wave polarization, Poynting vector and Poynting Theorem, power flow in electromagnetic fields, Electromagnetic wave generation and equations – Wave parameters; velocity, intrinsic impedance, propagation constant – Waves in free space, lossy and lossless dielectrics, conductors, skin depth ,Plane wave reflection and refraction, Standing Wave , Applications.	14

Text Book/References Books/ Websites:

- 1. Mathew N. O. Sadiku; Principles of Electromagnetics; Oxford University Press Inc.
- 2. D. K. Cheng; Field and Wave Electromagnetics; Pearson.
- 3. Ashutosh Pramanik; Electromagnetism Theory and Applications; PHI.

Suggested List of Laboratory Experiments :- (Expandable): Nil

School of Research and Technology

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Subject **Subject Title** Credit Theory Practical Code Total Total L Т Р (100) (50) Digital External Internal Internal External Min: ECT-1503 Min: 40 Communication (70) (30) (15) (35) 20 3 (D 1 1 (D Grade) Grade) Duration of Theory (Externals): 3 Hours

Duration of Theory (Externals). 5 Hou	15	
Theory Internal- Max Marks: 30	Best of Two Mid Semester Test –	Assignment/Quiz/Attendance –
	Max Marks: 15	Max. Marks: 15
Practical Internal Max Marks: 15	Lab work & Sessional –	Assignment/ Quiz/Attendance –
	Max Marks: 10	Max. Marks: 05

Pre-Requisite	To understand the key modules of digital communication systems with emphasis on digital
-	modulation techniques and the basics of source and channel coding/decoding.
Course Outcome	1. Apply the knowledge of statistical theory of communication and explain the
	conventional digital communication system.
	2. Apply the knowledge of signals and system and evaluate the performance of digital
	communication system in the presence of noise.
	3. Apply the knowledge of digital electronics and describe the error control codes like
	block code, cyclic code.

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Unit	Contents (Theory)	Marks Weightage
Ι	Random Variables:- Cumulative distribution function, Probability density function, Mean, Variance and standard deviations of random variable, Gaussian distribution, Error function, Correlation and autocorrelation, Power Spectral density of digital data.	14
Π	Pulse Modulation Analog Signals: Sampling of Signal, Sampling Theorem for Low Pass and Band Pass Signals, Aliasing, Pulse Amplitude Modulation (PAM), Time Division Multiplexing (TDM), Channel Bandwidth for PAM-TDM Signal, Types of Sampling, Instantaneous, Natural and Flat Top (Mathematical and Spectral Analysis), Aperture Effect, Introduction to Pulse Position and Pulse Duration Modulation.	14
III	Pulse Code Modulation Digital Signal: Quantization, Quantization Error, Pulse Code Modulation (PCM), Signal-to-Noise Ratio in PCM, Companding, Data Rate and Bandwidth of Multiplexed PCM Signal, Inter-symbol Interference, Differential PCM (DPCM), Delta Modulation (DM), and Adaptive Delta Modulation (ADM), Comparison of various system in terms of Bandwidth and Signal-to-Noise Ratio.	14
IV	Digital Modulation Techniques: Analysis, Generation and Detection (Block Diagram), Spectrum and Bandwidth of Amplitude Shift Keying (ASK), Binary Phase Shift Keying (BPSK), Differential Phase Shift Keying (DPSK), Quadrature Phase Shift Keying (QPSK), Binary Frequency Shift Keying (BFSK), Minimum Shift Keying, Quadrature Amplitude Modulation (QAM), Comparison of digital modulation techniques on the basis of probability of error, Matched Filter.	14
V	Information Theory And Coding: Information theory and coding- Information, entropies (Marginal and conditional), Mutual information, Types of channel, channel capacity, Shannon theorem, Shannon-Hartley theorem (S/N-BW trade off), Entropy coding: Shannon Fano and Huffman coding methods, Error control coding: Hamming code, Linear Block Code, Cyclic code and convolution codes.	14

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<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Semester -V

Text Book/References Books/ Websites:

- 1. Taub and Schilling; Principles of Communication System; TMH
- 2. Simon Haykins; Communication Systems; 4th Edition, John Wiley.
- 3. Singh and Sapre; Communication System; TMH.
- 3. B.P. Lathi; Modern Analog and Digital Communication System; Oxford University Press.
- 4. Tomasi; Advanced Electronics Communication Systems; 6th Edition, PHI.

Suggested List of Laboratory Experiments :- (Expandable):

- **1.** To study of sampling theorem.
- 2. To study of Time division Multiplexing.
- **3.** To study of pulse code modulation.
- 4. To study of Delta modulation.
- **5.** To study of FSK Modulation and demodulation.
- **6.** To study of PSK modulation and demodulation.
- 7. To Study of DPSK modulation and demodulation.
- 8. To Study of QPSK modulation and demodulation.
- 9. To Study of the comparative study of delta modulation and adaptive delta modulation technique.
- 10. To study of process of Quantization using MATLAB.

Semester -V

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Subject Credit Theory **Subject Title** Practical Code Total Total L Т Р (100) (50) External Internal Internal External Min: ECT-1504 Microprocessor Min: 40 (70) (30) (15) (35) 20 3 (D 1 1 (D Grade) Grade) **Duration of Theory (Externals): 3 Hours** •

Theory Internal- Max Marks: 30	Best of Two Mid Semester Test – Max Marks: 20	Assignment/Quiz/Attendance – Max. Marks: 10
Practical Internal Max Marks: 15	Lab work & Sessional – Max Marks: 10	Assignment/ Quiz/Attendance – Max. Marks: 05

Pre-Requisite	To introduce students with the architecture, programming, interfacing and operation of typical
	microprocessors
Course Outcome	1. To understand basic architecture of 16 bit and 32 bit microprocessors.
	2. To understand techniques for faster execution of instructions and improve speed of
	operation and performance of microprocessors.
	3. To understand interfacing an external device with the processor.

Unit	Contents (Theory)	Marks Weightage
	Introduction to Digital Computer and Microprocessor:	weightage
Ι	Digital Computers: General architecture and brief description of elements, instruction execution, instruction format, and instruction set, addressing modes, programming system, higher lever languages.	14
П	8085 Microprocessor: pin configuration, internal architecture. Timing & Signals: control and status, interrupt: ALU, machine cycles, Instruction Set of 8085: Addressing Modes: Register addressing, direct addressing; register indirect addressing, immediate addressing, and implicit addressing. Instruction format, op-codes, mnemonics, no. of bytes, RTL, variants, no. of machine cycles and T states, addressing modes. Instruction Classification: Data transfer, arithmetic operations, logical operations, branching operation, machine control; Writing assembly Language programs, Assembler directives.	14
III	16-bit Microprocessors: Architecture: Architecture of INTEL 8086 (Bus Interface Unit, Execution unit), register organization, memory addressing, memory segmentation, Operating Modes Instruction Set of 8086 Addressing Modes: Instruction format: Discussion on instruction Set: Groups: data transfer, arithmetic, logic string, branch control transfer, processor control. Interrupts: Hardware and software interrupts, responses and types.	14
IV	Fundamental of Programming: development of algorithms, flowcharts in terms of structures, (series, parallel, if-then-else etc.) Assembler Level Programming: memory space allocation (mother board and user program) Assembler level programs (ASMs) Other Microprocessors: Motorola 6800/MC6809, 65C02, Signetics 2650 etc.	14
V	Peripheral Interfacing: I/O programming: Programmed I/O, Interrupt Driven I/O, DMA I/O interface: serial and parallel communication, memory I/O mapped I/Os. Peripheral Devices: 8237 DMA controller, 8255- Programmable peripheral interface, 8253/8254 Programmable timer/counter 8259 programmable Interrupt Controller.	14

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Semester -V

Text Book/References Books/ Websites:

- 1. A Ditya P Mathur; Introduction to Microprocessor; Tata Mc Graw Hill.
- 2. M. Rafiquzzaman; Microprocessors- Theory and applications; PHI.
- 3. B. Ram; Advanced Microprocessor & Interfacing; Tata McGraw Hill.
- 4. Renu Singh & B.P. Singh,; Microprocessor and Interfacing and applications; New Age International.
- 5. Hall D.V.; Microprocessors Interfacing; Tata Mc Graw Hill.
- 6. Liu and Gibson G.A.; Microcomputer Systems: The 8086/8088 Family; Prentice Hall (India)

Suggested List of Laboratory Experiments :- (Expandable):

- 1. To store 8 bit data in register in 8085 microprocessor.
- 2. Add two 8 bit numbers in 8085 microprocessor.
- 3. To study program to clear accumulator then 3 to the accumulator ten times
- **4.** Program to load the accumulator with the value 55H and compliment accumulator 70 times.
- 5. To perform addition of two binary numbers of 8 bit length.
- **6.** To find a largest number in a given string.
- 7. To perform short a string of bytes in a descending orde
- **8.** To perform the ASCII multiplication.
- 9. To Study the binary to gray conversion.
- 10. To find 2's compliment of the given number

Semester –V

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Subject Code	Subject Title	0	Cred	it		Theory			Practical	
	Communication	L	Т	Р			Total (100)			Total (50)
ECT-1505	Network & Transmission Line	3	1	1	External (70)	Internal (30)	Min: 40 (D Grade)	External (35)	Internal (15)	Min: 20 (D Grade)
Duration of Theory (Externals): 3 Hours										

Theory Internal- Max Marks: 30	Best of Two Mid Semester Test –	Assignment/Quiz/Attendance –
	Max Marks: 20	Max. Marks: 10
Practical Internal Max Marks: 15	Lab work & Sessional –	Assignment/ Quiz/Attendance –
	Max Marks: 10	Max. Marks: 05
	·	

Pre-Requisite	To give knowledge of Transmission Line Theory, passive filters, equalizers and attenuators.
Course Outcome	1. Discussion about Characteristic Parameters of symmetrical and asymmetrical two port
	networks.
	2. Introduction of Passive LC Filters, Positive real function & network synthesis,
	transmission line fundamentals.
	3. About Line at radio frequencies, different parameters of line & Smith chart.

Unit	Contents (Theory)	Marks Weightage
I	Transmission Line Theory: Characteristic Parameters of symmetrical and asymmetrical two port networks and their design: image impedance, iterative impedance, characteristic impedance, propagation coefficient, image transfer coefficient ,iterative transfer coefficient, Lattice and Bridged-T networks, reactive matching networks, matching techniques, Insertion Loss, symmetrical and asymmetrical attenuators and their design.	14
II	Passive Filters: Passive LC Filters: Analysis and design of Low pass, high pass, band pass and band elimination filters, m-derived filters, composite filters, Filter specifications, Butterworth approximation, Chebyshev approximation, elliptic function approximation, frequency transformation.	14
III	Network Synthesis: Positive real function, LC, RL, RC, and RLC network synthesis, Foster and Cauer network, minimum positive real function, Brune's method, Bott-Duffin method, Synthesis-Coefficient.	14
IV	Attenuators And Equalizers : Transmission line fundamentals: Lumped parameter equivalent, voltage and current on a transmission line, infinite line, characteristic impedance and propagation constant, waveform distortion, attenuation and phase equalizers, distortion-less line, loading, liner reflection on a line, reflection coefficient, input and transfer impedances, open circuit and short circuit line, reflection factors, reflection loss, insertion loss, T and π equivalents of a line, location of line fault. Construction and design of two wire line and coaxial cable.	14
V	Impedance Matching In High Frequency Lines: Line at radio frequencies, parameters of line and coaxial cable at radio frequencies, dissipation-less line, voltage and current on a dissipation-less line, standing waves, standing wave ratio, input impedance of open circuit and short circuit, power and impedance measurement on lines, eighth-wave, quarter-wave and half wave line, circle diagram, Smith chart, solution of problems sing Smith chart, single and double stub matching .introduction to micro-strip lines and its analysis.	14

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Programme: Bachelor of Technology

Text Book/References Books/ Websites:

- 1. J.D. Ryder; Networks and Transmission Lines; 2nd edition, PHI.
- 2. M.E. Valkenberg; Introduction to Modern Network synthesis; Wiley Eastern Ltd.
- 3. G.K. Mithal; Network Analysis; Khanna Publishers.
- 4. Umesh Sinha; Networks and Transmission Lines; Satya Prakashan
- 5. Suresh; Electric Circuits and Networks; Pearson Education.

Suggested List of Laboratory Experiments :- (Expandable):

- 1. To study the basics of transmission line.
- 2. To measuring the primary constants of transmission line.
- 3. To measuring the input impedance of the transmission line.
- 4. To measuring the attenuation of transmission line.
- 5. To measuring the phase displacement between the current and voltage at input of the lines.
- 6. To measure the frequency characteristics of Line.
- 7. To perform the signal phase shift along the line.
- 8. To study the fault localization within line.
- 9. To Study the m-derived filter.
- 10. To Study the k-derived filter.

Semester –V

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Semester –V

Subject Code	Subject Title	Credit			Theory			Practical		
		L	Т	Р			Total		Total (50)	
ECT-1506	Electronics Workshop-II				External	Internal	Nil	External (35)	Internal (15)	Min: 20
	··· •·································	-	-	1	(Nil)	(Nil)			()	(D
										Grade)
Duration of Theory (Externals): Nil										
Theory Internal- Max Marks: Nil				В	Best of Two Mid Semester Test –			Assignment/Quiz/Attendance –		
				Ν	Iax Marks: N	Jil		Max. Marks: Nil		
Practical Internal Max Marks: 15				L	Lab work & Sessional –			Assignment/Quiz/Attendance –		
				Ν	Iax Marks: 1	0		Max. Marks	: 05	

Pre-Requisite	Nil
Course Outcome	1. Able to build and Simulate Core Electronic Circuits based on syllabus.
	2. Able to design and implement different Applications on Software.
	3. Build core hardware projects.

Unit	Contents (Theory)	Marks Weightage
-	 This course gives students deep knowledge in Core Electronic components and their specifications and creates interest in Hardware Technology. As students engage in this course, they will learn the theories and principles that are fundamental to electronics through the development of exciting class projects. 1. To focus on the fundamental concepts of software's to be used for Hardware Simulation. 2. To enhance the knowledge of component applications in Software. 3. To understand the basic concept of Layout Creation. 4. To understand Auto routing. 	50

Text Book/References Books/ Websites: Nil Suggested List of Laboratory Experiments :- (Expandable):

- 1. Design of rectifiers and regulated power supplies.
- 2. Simple design of transistorized series and shunt regulator.
- 3. Design of small signal, RC coupled Amplifiers.
- 4. Design of low-frequency amplifier Amplifiers.
- 5. Design a simple complementary-symmetry audio power amplifier.
- 6. Design of a small power transformer.
- 7. Design of Colpitt's oscillators.
- 8. Design of Hartley oscillators.
- 9. Design of astable multivibrator.
- 10.Design of monostable multivibrators.

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Semester –V

Subject Code	Subject Title	Credit			Theory			Practical		
		L	Т	Р			Total			Total (100)
ECT-1507	Industrial				External	Internal		External	Internal	Min:
	1 raining-1	-	-	2	(INII)	(1111)	(Nil)	(70)	(30)	40 (D
										(D) Grade)
Duration	of Theory (Externa	Nil								
Theory Internal- Max Marks: -Nil				B	Best of Two Mid Semester Test –			Assignment/Quiz/Attendance		
				Ν	lax Marks: -]	Nil		Max. Marks: -Nil		
Practical Internal Max Marks: 30				L	ab work & S.	essional –		Assignment / Quiz/ Attendance		
				Ν	Aax Marks: 2	0		Max. Marks:	10	

Pre-Requisite	Fundamental Engineering concepts of concern discipline.
Course Outcome	 Enrich their practical learning and they will be better equipped to integrate the practical experiences with the classroom learning process. Interact with real World of Work and should try to learn as much as possible from real life experiences by involving with industry staff.

Unit	Contents (Theory)	Marks Weightage
Ι	 The objective of undertaking industrial training is to provide work experience so that student's engineering knowledge is enhanced and employment prospects are improved. Industrial training of the students is essential to bridge the wide gap between the classroom and industrial environment. As a part of B. Tech. curriculum, ECT-507, Industrial Training -I is a Practical course, which the students should undergo in reputed Private / Public Sector / Government organization / companies as industrial training of minimum two weeks to be undergone by the student in the semester break after IV semester theory examinations. Training period: Minimum of two weeks or 15 (Fifteen) Days. Evaluation: Fifth semester Companies / Areas covered: Any field related to concern branch / discipline of Engineering. Grading: As per Scheme Note: Presentation will take place the following week after completion your training. The presentation is evaluated by your class in charge. Report must be submitted during power point presentation. A Viva voce comprising comprehensive questions based on your presentation and training undergone. Etiquettes: Dress properly, Behave well, Portray good image as a university student, Be punctual, Observe work ethics, Concern for safety, Be professional. 	100

Text Book/References Books/ Websites: Nil Suggested List of Laboratory Experiments :- (Expandable): Nil

<u>PEOPLE'S UNIVERSITY, BHOPAL</u> (Applicable for Admitted from Academic Session 2019-20 onwards)

Programme: Bachelor of Technology

Semester –V

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Subject Code	Subject Title	C	red	it		Theory			Practical	
	In Jton	L	Т	Г Р Балана		Intornal	Total (50)	E-4	Internal (Nil)	Total
BT-1508 Indian Constitution	2	-	-	- External (35)	Internal (15)	Min: 20 (D Grade)	(Nil)	Nil		
Duration	of Theory (Externa	2 Ho	urs							
Theory Internal- Max Marks: 15			ł	Best	of Two Mid S	Semester Te	Assignment/Quiz/Attendance			
				Max 1	Marks: Nil		Max. Marks: 15			
Practical Internal Max Marks: Nil				Lab v	vork & Sessi	onal –	Assignment / Quiz/Attendance			
			ľ	Max 1	Marks: Nil			Max. Marks:	Nil	

Course Outcome 1. Understand the functions of the Indian government.	
2. Understand and abide the rules of the Indian constitution.	

Unit	Contents (Theory)	Marks Weightage
Ι	Introduction: Constitution' meaning of the term; Indian Constitution: Sources and constitutional history; Features: Citizenship; Preamble; Fundamental Rights and Duties; Directive Principles of State Policy.	07
II	Union Government and its Administration: Structure of the Indian Union: Federalism; Centre- State relationship; President: Role; power and position; PM and Council of ministers; Cabinet and Central Secretariat; Lok Sabha; Rajya Sabha.	07
III	State Government and its Administration: Governor: Role and Position; CM and Council of ministers; State Secretariat: Organization; Structure and Functions.	07
IV	Local Administration: District's Administration head: Role and Importance; Municipalities: Introduction; Mayor and role of Elected Representative; CEO of Municipal Corporation; Pachayati raj: Introduction; PRI: Zila Pachayat; Elected officials and their roles; CEO Zila Pachayat: Position and role; Block level: Organizational Hierarchy (Different departments); Village level: Role of Elected and Appointed officials; Importance of grass root democracy.	07
V	Election Commission: Role and Functioning; Chief Election Commissioner and Election Commissioners; State Election Commission: Role and Functioning; Institute and Bodies for the welfare of SC/ST/OBC and women.	07

Mandatory (Non Credit) subject according to AICTE. Non University Examination; End Sem marks not to be included in total marks and credit. Students must pass in this subject.

Text Book/References Books/ Websites:-

1. Indian Polity by Laxmikanth.

- 2. Indian Administration' by Subhash Kashyap.
- 3. 'Indian Constitution' by D.D. Basu.
- 4. 'Indian Administration' by Avasti and Avasti.

Suggested List of Laboratory Experiments :- (Expandable): Nil