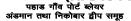अंडमान तथा निकोबार प्रशासन
ANDAMAN & NICOBAR ADMINISTRATION
डॉ. भीमराव अंबेडकर प्रौद्योगिकी संस्थान
Dr. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY
(NAAC ACCREDITED)
पहाड़ गाँव पोर्ट ब्लेयर   **PAHARGAON, PORT BLAIR- 744103**
अंडमान तथा निकोबार द्वीप समूह   **ANDAMAN & NICOBAR ISLANDS**

ISO 9001
BUREAU VERITAS
Certification

Recruitment Notice for Guest AP, Guest Lecturers, PTI

Selected candidates shall be eligible for an amount of Rs.1000/- per hr for theory and Rs.500/- per hr for practical classes not exceeding Rs.25,000/- per month for Guest AP (Degree Program) and Rs.250/- per hr for theory and Rs.125/- per hr for practical classes not exceeding Rs.10,000/- per month for Guest Lecturer (Diploma Program). For Part Time Instructor, Rs.150/- per hr for the practical classes not exceeding Rs.10,000/- per month. Selection will be based on the performance of the candidates in the Demo theory and practical class. The venue for theory demo will be LANGUAGE LAB of the Institute.

S. No.	Details of requirement	Educational Qualification	Date and time	
			Practical	**Theory**
1	Guest AP (Civil)	First class in B.E./B.Tech., and M.E./M.Tech. from recognized university in relevant course	29.05.2023 9:30 am to 11:30 am	29.05.2023 1:30 pm to 2:00 pm
2	Guest AP (CSE)			29.05.2023 2:00 pm to 2:30 pm
3	Guest AP (ME)			29.05.2023 2:30 pm to 3:00 pm
4	Guest Lecturer (Civil)	First class B.E./B.Tech., from recognized university in relevant course	24.05.2023 9:30 am to 11:30 am	24.05.2023 1:30 pm to 2:00 pm
5	Guest Lecturer (CO/IT)			24.05.2023 2:00 pm to 2:30 pm
6	Guest Lecturer (Electrical)			24.05.2023 2:30 pm to 3:00 pm
7	Guest Lecturer (ECE)			24.05.2023 3:00 pm to 3:30 pm
8	Guest Lecturer (ME)			25.05.2023 1:30 pm to 2:00 pm
9	Guest Lecturer (HM)	First class Degree in Hotel Management & Catering Technology with 1 year Experience **Or** First class Diploma in Hotel Management and catering technology with 2 years' experience		25.05.2023 2:00 pm to 2:30 pm
10	Guest AP (Maths)	First class Master's Degree in appropriate subject with first class or equivalent at Bachelor's or Master's level	-------	25.05.2023 2:30 pm to 3:00 pm
11	Guest AP (English)		-------	25.05.2023 3:00 pm to 3:30 pm
12	Guest AP (Chemistry)		24.05.2023 9:30 am to 11:30 am	26.05.2023 2:00 pm to 2:30 pm
13	Guest AP (Physics)			26.05.2023 2:30 pm to 3:00 pm
14	Guest Lecturer (Management & Accounts)		--------	26.05.2023 3:00 pm to 3:30 pm
15	Part time Instructors (CSE, CO/IT, ME)	Bachelor Degree in Science from a recognised university OR Senior secondary pass(10+2) in Science subject from a recognised educational/ Technical Institution OR Senior secondary pass(10+2) with vocational course certificate in an appropriate trade with 3 years practical experience	24.05.2023 9:30 am to 11:30 am	--------

Dean (Academics)

DR. B R AMBEDKAR INSTITUTE OF TECHNOLOGY, PORT BLAIR

DEMO TOPICS FOR GUEST FACULTY SELECTION PROCESS FOR THE SESSION 2023-24 (ODD SEM)

S.NO.	DEPARTMENT	DEMO TOPIC	
		THEORY	PRACTICAL
1	CIVIL (GAP)	Design of RCC Structure: Limit state of Design of beams, slab for flexure, shear, bond and torsion	Desigining of Rcc elements and structures
		Structural Analysis I: Slope deflection method & moment Distribution Method	Determination of quality of water
		Environmental Engg II: Trickling filter, waste stabilization, lagoon, low cost disposal of sewage	Test on cement
		Surveying II: Survey adjustments - method of equal shifts, principle of least squares	Test on aggregate
		Surveying: Tachometric surveying	Compass surveying
		Geotechnical Engg: One dimensional consolidation	Levelling
2	CSE (GAP)	Computer Networks: Routing algorithm, congestion control	Computer Programing lab: Arrays & structures, Pointers, fuctions & recursions, File handling
		AI: Heruistic search techniques, predicate logic, minmax & alpha-beta cutoffs	Computer Network Lab: creation of a socket between 02 PC & enable file transfer using TCP & UDP, implementaion & performance evaluation given protocols using NS2 (shortest path routing, link state, hierarchical)
		Software Engg: Cost estimation, function & obect oriented SE, software testing	Artificial Intelligence Lab: Implementaion of A* algorithm implementation of minmax algorithm, implementation of blocks world problem
		Compter Programming: Arrays & structure, Pointers, functions, recursions, file handling	
		Language Translator: Lexical analysis, paring through LR parser, code generation	

3	ECE (GL)	Boolean Algebra: Laws of Boolean algebra, duality theorm, De-morgans theorem, basic of encoder/decoder, comparision of BCD to 7 segment decoder/driver (IC 7447)	Design of full adder & full subtractor, build/test function of RS flip-flop using NAND gate, build R2-R resistive network on breadboard to convert given digital data into analog, Construct SR, JK, D & T flip-flop & verify truth table
		Active and passive components, voltage & current source, anglog & digital IC, input- output characteristics of CE,CB & CC configuration, transistor parameters	Test performance of PN junction diode, determine the value of given resistor using digital multimeter, test the performance of NPN transistor, test teh performance of transistor as switch circuit,, test the performance of transistor amplifier circuit
		Features of 89C51, PIC, AVR & ARM microcontroller & thier application, classification of embedded system (small scale, medium scale, sophisticated stand-alone, reactive/real time), interrupt control program with embedded 'C' for microcontroller, max 232as bidirectional level converter, features of RTOS (watch dog timer, sema phone)	Execute teh 'C' program to perform data transfer from source to destination, interface RS 232 connector to pC using MAX 232 IC, identify pin of 8051 & AVR micrcontroller
		Process of data communication & ts components, frequency shif keying, phase shift keying, spread spectrum, frequency hopping spread spectrum, direct sequence spread spectrum, wireless LAN (802-11), architecture MAC sublayer, addressing mechanism, 4G & VOLTE (intoduction, feature, next generation mobile communication)	
4	CIVIL (GL)	Concrete Technology: properties of concrete, methods of testing, mix design	Concrete Tehnology:test for aggregates (course & fine), test for cement, test for concrete
		Public Health Engg: calculation of water demand, quality of water, primay & secondary treatment of water	Public Health Engg: test for physical properties of water, test for chemical properties of water
		Highway geometrics, pavement construction, road maintenance	Surveying: chain surveying, compass surveying, levelling
5	EE (GL)	Mesh/Nodal analysis	Verification of Kirchoff's Law.
		RLC series circuit & circuit resonance	Measurement of power in single phase AC Circuit.
		Measurement of single phase power using dynamometer wattmeter	Measurement of three phase power by two Wattmeter method
		Construction & working principle of transformer	Load test on single phase transformer
		Parallel operation of transformer	Open circuit and short circuit test in single phase transformer.
		Voltage regulation of alternator	Load test on three phase induction motor.
		Construction & working of Buchholz Relay	Staircase wiring.
		Different types of line insulators in transmission & distribution system	Go down wiring
		Different types of three phase induction motors	Straight joint and T-joint
		Over current & earth fault protection of alternators	Starting and running of single phase induction motor in forward and reverse direction

6	CO/IT (GL)	Principle of database: normalization, ER model	Advance Java programming: write programme to implement chat server using server socket & socket class, design form with components list, choice, label, checkbox, text field.
		Advance java programming: socket programming, AWT	Client side scripting: develop java script to implement function, develop web page for creating session & persistent cookies
		Cleint side scripting: Function, cookies	Applied multimedia techniques:design wallpaper showing water drop effect of an image, design poster using different text effect, develop web page which shows animation with sound effect
		Data structure: stack queue	Data structure - radix sort, binary searching
		Computer graphics: windowing clipping	Computer graphics: DDA, Brehenham's algorithm
		Operating system: memory management	OS: CPU scheduling (FCFS)
		Software testing: test management, defect management	Workshop practice: assemble & dissemble of various part of computer system
		Object oriented programming using C++: inheritence and its types	OOP using C++: implementing concept of multiple inheritences based on the given scenario, implement concept of copy constructor
		Advance Computer network: IP addressing, transition from IPv4 to IPv6	Advance Computer Network: configure OSPF & RIP using packet tracer, establish cleint-server arhitecture using IPv6 addressing in packet tracer
		Database management system: triggers, transaction, processing	DBMS:implement trigger for insert, updating & deleting from the data base, design database on the given reqirement &execute required DML commands by follwing referntial integrity constraints if required
7	ME (GAP & GL)	Angle of projections. (Both 1st & 3rd	Conic sections
		Development of surfaces	Isometric projections
		Losses in pipe line flow	Orthographic projection in AUTO CAD
		Mechanical drives system	Verification of Bernoulli's Theorem
		Theories of failures	Determination of friction factor
		Second law of thermodynamics	Linear measurement of Vernier Calliper
		Working principle of differential units	Angular measurement by sine bar and slip gauges
		Working of electro discharge machining	Measures screw thread's parameters using profile projector
		Basis mechatronics systems	Determination of MA, VR, efficiency, ideal effort and effort lost in friction state and justify whether machine is reversible or not for a given single purchase crab winch
		Hydraulic and pneumatic system	Determine the MA, VR, efficiency, ideal effort and effort lost in friction state and justify whether machine is reversible or not for a given differential wheel and axle

8	MATHS (GAP)	Differentiation of implicit function	
		Lagrange method of undetermined multipliers	
		Area by double integration and volume by triple integration	
		First order linear differential equations	
		Partial fraction of proper and improper fraction	
		Reduction of quadratic form into conical by orthogonal transformation	
		Expansion of periodic function into Fourier Series	
		Solution of linear simultaneous in the three variables by crammers rule	
		Point of intersection of two lines, equation of line passing through point of intersectin with given condition	
		Fourier's Transformation and its transverse	
9	PHYSICS (GAP)	Ultrasounic Wave Proiduction	To study the coefficient of thermal conductivity of bad conductor by using Lee's disc method
		Laser and fiber optics	Determination of thickness of given piece of sample of airwedge method
		Air wedge-Michelson's interferometer	Determination of wavelength of monochromatic light by using fiffraction grating
		Concept of double refraction	Determination of elasticity of a metallic wire by using searle's apparatus
		Nanomaterials - its synthesis, properties and application	determination of law resistance by using meter bridge/determination of velocity of sound by resonance column
		Non destructive testing of materials	to determine the radius of curvature of a planoconvex lens using newton's ring apparatus
		Nuclear Reactor	to determine the refractive index of glass prism by using Pin method
		Application of hall effect in the semiconductor	to determine the buoyancy force on solid immersed in liduid (Archemedies principle)
		Super conductors and it application	to determine the internal resistance of primary cell by using potentiometer
		Magnetic field and magnetic field intensity	to calculate the magnetic moment & pole strength of a bar magnet by using vibration magnetometer

10	Chemistry (GAP)	Conducting polymers- classification & application	to determine pH value of solution using pH meter & universal indicator
		Protective coating & its types in terms of corrosion	determination thinner content in oil plant
		Vulcanization- synthetic tubber	estimation of vinegar
		Super conductivity	estimation of available chlorine in Bleaching powder
		Desalination process- reverse osmosis & electrodylasis	estimate the chlorine content of given water sample
		Moulding constituent of plastics & moulding techniques	estimation of magnesium by EDTA
		Different types of crystal structures with angle	determination of carbonates & bi-carbonates in water
		Qualitative idea of line, point surface & volume defect	determination of percentage of iron present given Hematite ore by KMnO4 solution
		How to calculate Co-ordination number & atomic radius of FCP & HCC uint cells	determination of hardness of the sample water by EDTA method
		Dielectric polarization & mechanism	estimation of ferrous by permagnometry
11	ENGLISH (GAP)	Strategies of effective communication	
		Importance of public speaking	
		passahge in written & spoken form	
		comprehensive of technical & non technical materials	
		active & passive voice	
		importance of comprehension	
		Phonetics	
		Use of modren office equipments & gadgets	
		types of communication	
		use of articles in formulating sentences	
12	MANAGEMENT (GL	Need for instruction & direction to suordinates	
		preparation of balance sheet & profit-loss statement	
		need for safety management measures	
		planning at supervisory level- planning, detailing, and following each step	
		types of organization- steps in organizing	
		business plan preparation	
		incubation centre- role & procedure	
		Intrapreuner & entrepreuner	
		market study procedures	
		total quality management	

13	ACCOUNTS (GL)	Cash book	
		types of capital	
		Ledger	
		need for hotel accountancy system	
		generation of night audit report	
		Depriciation- meaning, causes, fixed installment & diminishing balance method	
		preparation of final accounts	
		Book of original entry- journals	
		Principles of double entry systems in accountancy & its advantages	
		Direct & indirect taxes	
14	HOTEL MANAGEMENT (GL)	Food Production: methods of cooking, menu planning, kitchen stewarding, Herbs, Oriental cuisine, continental cuisine, frozen desserts, fish cookery, salad dressing & salads, stocks & sauces	Plan & prepare a 03 course menu of your choice which should include a starter veg/non veg, one main course & a dessert
		Food & Beverage service: wine classification, meals, Gin (production & examples), gueridon services, types of service, alcoholic beverage, function catering, wines of france, tobacco, distillation of sprits	Plan & prepare a 05 course continental menu & lay the table according to it
		Housekeeping: checkout & guest bill settlement, laundry, contract cleaning & renovation, interior designing, importance of selling & techniques, flower aggrangement, ecotels, polishes & polishing types used in Hotel industry, housekeeping organization chart for different types of hotels, laundry cycle	Prepare a flower arrangement as per the theme given
		Front Office: Types of hotel, types of keys, check in check out procedures, guest cycle, reservation modes and sources, types of rooms, duties & responsibilities of front office staff, food plan & modes of payments, front office organization, night auditing & role of night auditor	Plan & prepare a role play for a fussy guest

DEMO TOPICS FOR PART TIME INSTRUCTOR SELECTION PROCESS FOR THE SESSION 2023-24 (ODD SEM)

S.No.	Department	Topic
1	CSE	C programming lab: arrays & structure, pointers, functions, recursions, file handling
		OS installation
		Hardware & networking
2	CO/IT	Network cabling
		Set up Wi-Fi
		Assesmble & dissemble of various parts of computer system
		OS installation
		C program on pointer, structures & file management
		C++ program on class, overloading, inheritence
		Data structure usintg C- tree traversal
		Data structure using C: bubble sorting, radix sorting
		Mail merge
		Preparation of result sheet in excel
3	ME	Conic sections
		Isometric projections
		Orthographic projection in AUTO CAD
		Verification of Bernoulli's Theorem
		Determination of friction factor
		Linear measurement of Vernier Calliper
		Angular measurement by sine bar and slip gauges
		Measures screw thread's parameters using profile projector
		Determination of MA, VR, efficiency, ideal effort and effort lost in friction state and justify whether machine is reversible or not for a given single purchase crab winch
		Determine the MA, VR, efficiency, ideal effort and effort lost in friction state and justify whether machine is reversible or not for a given differential wheel and axle