अंडमान और निकोबार प्रशासन
ANDAMAN & NICOBAR ADMINISTRATION
डॉ. भीमराव.अंबेडकर प्रौद्योगिकी संस्थान
Dr.B.R.AMBEDKAR INSTITUTE OF TECHNOLOGY
पहाड़गांव, श्री विजयपुरम-७४४१०३ PAHARGAON, SRI VIJAYAPURAM-744103
अंडमान और निकोबार द्वीपसमूह ANDAMAN & NICOBAR ISLANDS

ISO 9001 BUREAU VERITAS Certification

RECRUITMENT NOTICE FOR GAP, GL & PTI (2025-26 Odd) - DBRAIT

Selected candidates shall be eligible for an amount of Rs.1500/- per hr for theory and Rs.750/- per hr for practical classes not exceeding Rs.50,000/- per month for GAP (Degree Program). 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 Lecturer (Diploma Program). For Part Time Instructor, Rs.750/- per day for the practical classes not exceeding Rs.18,000/- 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 Audio Visual Room (AV Room) of the DBRAIT and practical skill test will be conducted by the concerned departments.**

S. No	Details of requirement	Educational Qualification	Date and time	
			Practical	Theory
1	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	17.07.2025 9:30 am to 12:00 noon	17.07.2025 02:00 pm to 02:30 pm
2	Guest Lecturer (Civil)	First class B.E./B.Tech., from recognized university in relevant course	17.07.2025 9:30 am to 12:00 noon	17.07.2025 02:30 pm to 03:00 pm
3	Guest Lecturer (ME)			17.07.2025 03:00 pm to 03:30 pm
4	Guest Lecturer (Electrical)			17.07.2025 03:30 pm to 04:00 pm
5	Guest Lecturer (ECE)			18.07.2025 02:30 pm to 03:00 pm
6	Guest Lecturer (CO/IT)			18.07.2025 03:00 pm to 04:00 pm
7	GAP & GL (Maths)	First class Master's Degree in appropriate subject with first class or equivalent at Bachelor's or Master's level	-------	19.07.2025 02:00 pm to 04:00 pm
8	GAP & GL (Chemistry)		Physics & Chemistry 17.07.2025 9:30 am to 12:00 noon	
9	Guest Lecturer (Physics)			
10	Guest Lecturer (English)		-------	
11	Guest Lecturer (Management)		-------	
12	Guest Lecturer (Accounts)		-------	
13	Part time Instructors (CSE, CO/IT, CE, EE & HM)	Bachelor Degree in relevant field from a recognized university OR Diploma in relevant field from a recognized university/ Board OR Senior secondary pass(10+2) in Science subject from a recognized educational/Technical Institution OR Senior secondary pass(10+2) with vocational course certificate in an appropriate trade with 3 years practical experience	17.07.2025 9:30 am to 12:00 noon	--------
14	Yoga Instructor (Male & Female)	Diploma in Yoga OR B.Sc Yoga OR Yoga instructor certificate course from reputed institution	18.07.2025 9:30 am to 12:00 noon	---------

Dean (Academics)
डीन (अकादमिक)
DEAN (Academics)
डॉ. भीमराव अंबेडकर प्रौद्योगिकी संस्थान
DR. B.R.AMBEDKAR INSTITUTE OF TECHNOLOGY
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Pahargaon, Sri Vijaya Puram-744103

DR. B R AMBEDKAR INSTITUTE OF TECHNOLOGY, PORT BLAIR

DEMO TOPICS FOR GUEST FACULTY SELECTION PROCESS FOR THE SESSION 2025-26 (ODD SEM)

S.NO.	DEPARTMENT	DEMO TOPIC	
		THEORY	PRACTICAL
1	CO/IT (GL)	**Operation System** (a) CPU Scheduling Algorithm - FCFS, SJF, Priority, Round Robin (b) Memory Management - Swaping, Compaction, Fragmentation, Partitioning Algorithm (First Fit, Best Fot, Worst Fit), Non Contiguous Memory Management Technique (Paging, Segmentation) **Advance Computer Network** (a) Routing Protocols - Intradomain Routing (Distance Vector Routing), Link State Routing (OSPF), Interdomain Routing (Path Vector Routing - BGPv4) **Data Structure using C** (a) Searching - Linear Search & Binary Search (b) Sorting - Slection Sort, Insertion Sort (c) Linked list - Signly Linked list **Object Oriented Programming using C++** (a) Constructor and Destructors (b) Inheritence (c) Polymorphism **Computer Graphcis** (a) Line Drawing Algorithm - DDA Algorithm, Bresenham Algorithm (b) 2D Transformation (c) 3D Transformation **Fundamentals of Pythom Programming** (a) Python - List, Set, Tuple, Dictionary (b) Functions in Python - User definded functions (c) Python Packages - NumPy, Matplotlib	Write a C / Python Program to calculate average waiting time and turn around time of n processes with first come first serve CPU scheduling algrothim. Write a C / Python Program to calculate average waiting time and turn around time of n processes with shortest job first CPU scheduling algrothim. Implement RIP in CISCO packet tarcer Subnetting Implement sorting algrothim in C Algrothim program in C using linked list Write program in C++ for parameterized constructor Write program in C++ for copy constructor Write a programs using single level inheritance Write a programs using multi level inheritance Write a C program to draw line using DDA algorithm Write a C prgram to draw a line using Bresenham Algorithm Formula and functions in worksheet Write a program in Python to accept the 3 sides of a triangle to check whether the triangle is isosceles, equilateral, right angled triangle Write a Python program by taking useres input to find the area of the rectangle and find the area of circle Developed Python program top perform following operations on Tuples - Create, access, update, delete tuple elements
2	Electrical (GL)	Mesh/ Nodal Analysis RLC series ciruit & circuit resonance Measurement of single phase power using dynamometer wattmeter Construction and working principle of transformer Parallel operation of transformer Voltage regulator of alternator Construction and working of Buchholz Relay Different types of line insulators in transmission & distribution system Different types of three phase induction motors Over current and earth fault protection of alternators	Verification of Kirchoff's laws Measurement of power in single phase AC circuit Measurement of three phase power by two wattmeter method Load test on single phase transformer Open circuit and short circuit test of single phase transformer Load test on single phase induction motor Staircase wiring Go down wiring Straight joint and T-Joint Starting and running of single phase induction motro in formward & reverse direction

3	**Civil (GL)**	**HIGHWAY ENGINEERING** (a) Geometric design of Highway (b) Types of Pavements & its construction (c) Road maintenance & drainage **CONCRETE TECHNOLOGY** (a) Properties of concrete (b) Method of testing (c) Mix design **SURVEYING** (a) Chain surveying (b) Compass surveying (c) Levelling	**BUILDING DRAWING & PLANNING WITH CAD** (a) Preperation of various types of plan & sectionfor a framed structure building (b) Working drawing of framed structure (c) Planning of Dog Legged stair case for residental & public building **CONCRETE TECHNOLOGY** (a) Test for cement (b) Test for aggregate (fine & course) (c) Test for concrete **SURVEYING** (a) Chain surveying (b) Compass surveying (c) Levelling
4	**Hotel Management (HM) (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
5	**Mechanical (GL)**	Development of surfaces	Conic Sections
		Angle of Projection (First & Third both)	Isometric Projections
		Losses in pipeline flow	Orthographic Projection in AutoCAD
		Heat treatment principles & processes	Verification of Bernoulli's theorem
		Concept of internal energy & entropy	Determination of Friction Factor
		Second law of thermodynamics	Linear measurement by Vernier Calliper
		Working of MPFI System	Angular measurements by Sine bar & slip gauges
		Working of Elector dischage machining (EDM)	Determine the M.A, V.R, Efficiency, ideal effort & effort lost in friction, state & justify whether machine is reversible or not for a given single purchase crab winch
		Principle of direct & bending stress	Determine the M.A, V.R, Efficiency, ideal effort & effort lost in friction, state & justify whether machine is reversible or not for a given double purchase crab winch
		Principles of Hydraulic and Pneumatic systems	Determine the M.A, V.R, Efficiency, ideal effort & effort lost in friction, state & justify whether machine is reversible or not for a given Differential wheel & axle
6	**Maths (GAP / GL)**	Differentiation of implicit function	
		Eigen value and Eigen vector	
		Laplace transformation	
		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	
		Periodic function into Fourier series	
		Solutions of linear simultaneous in the three variables by crammers rule.	
		Point of intersection of two lines, equation of line passing through point of intersection with given condition	

7	**Physics (GL)**	Ultrasonic Wave Production	Determination of thickness of given piece of sample by air wedge method
		Lasers and fibre optics	Determination of wavelength of monochromatic light by using diffraction grating
		Air wedge- Michelsion's interferometer	Determination of elasticity of a metallic wire by using searle's apparatus
		Work, Energy and Power	Determine the modulus of rigidity by using torsional pendulum
		Nanomaterials- its synthesis, Properties and Application	Determination of law resistance by using meter bridge
		Photo-electric Effect	Determination of velocity of sound by resonance column
		Semiconductor	To determine the radius of curvature of a planoconvex lens using newton's ring apparatus
		Applications of semiconductor	To determine the refractive index of glass prism by using Pin method
		Super conductors and its application	To determine the internal resistance of primary cell by using potentiometer
		Magnetic field and magnetic field Intensity	To calculate the magnetic moment and pole strength of a bar magnet by using vibration magnetometer.
8	**Chemistry (GAP / GL)**	Conducting polymers – classification and application	To determine the pH value of solution using pH meter and universal Indicator
		Protective coating and its types in terms of corrosion	Determine thinner content in oil paint
		Vulcanization –Synthetic Rubber	Estimation of vinegar
		Super conductivity	Estimation of available chlorine in Bleaching powder
		Desalination process- reverse osmosis and Electrodyalisis	Estimate the chlorine content of given water sample
		Moulding constituent of plastics and moulding techniques	Estimation of magnesium by EDTA
		Different types of crystal structures with angle.	Determination of carbonates and bi carbonates in water
		Qualitative idea of line, point surface and volume defect	Determination of percentage of iron present given Hematite ore by KMno4 Solytion
		How to calculate Co-ordination number and atomic radius of FCP and HCC unit cells	Determination of Hardness of the sample water by EDTA method
		Dielectric polarization and Mechanism	Estimation of ferrous by permagnometry
9	**English (GL)**	Strategies of effective communication	
		Importance of public speaking	
		Passage in written and spoken form	
		Comprehension of technical and non technical materials	
		Active and Passive Voice	
		Importance Of Comprehension	
		Phonetics	
		Use of modern office equipments and gadgets	
		Types of communication	
		Use of articles in formulating sentences.	
10	**Management (GL)**	Preparation of balance sheet and profit-loss statement	
		Planning at supervisory level-planning , detailing and following each step	
		Business plan preparation	
		Incubation centre- Role and Procedure	
		Total quality management	
		Types of enterprises and their features : manufacturing, service and trading	
		Market study procedures: questionnaire design, sampling, market survey, data analysis	
		Categorization of MSME, ancillary industries	
		Breakeven point, return on investment (ROI) and return on sales (ROS).	
		Unique Selling Proposition [U.S.P.]: Identification, developing a marketing plan.	
11	**Account (GL)**	Cash book	
		Types of capital	
		Ledger	
		Need for hotel accountancy system	
		Generation of night audit report	
		Depreciation- meaning, causes, fixed installment and diminishing balance method	
		Preparation of final accounts.	
		Book of original entry-Journals	
		Principles of double entry systems in accountancy and its advantages	
		Direct and indirect taxes	

12	**ECE (GL)**	**Embedded System**	**Embedded System**
		Classification of embedded system: small scale, medium scale, sophisticated, stand-alone, reactive/real time	Write C program to perform addition and subtraction operations on two constant data and output the result to port
		ARM Microcontroller - features and applications.	Interface 4 x 4 LED matrix with AVR
		Communication Protocols & its types: Serial: I2C, CAN, USB.	Configure USB protocol on PC
		Deadlock in real time Operating System- Reasons of occurrence & handling methods	
		Basic Electrical and Electronics	**Basic Electrical and Electronics**
		Time and frequency domain representation of signals- Amplitude, frequency, phase, wavelength	Test the performance of Zener diode
		Construction and working of Full wave rectifier	Build and Test Bridge Rectifier using four diodes
		Voltage regulator	Build and test + 5 V regulated D C power supply using three terminal voltage regulator
		Working principle of Transistor as switch and amplifier	
		Digital Techniques	**Digital Techniques**
		Explain the concept of Buffer and Tristate logic	To construct Basic Gates using Universal Gates
		Design Full Adder using K-map	2. To implement & verify 3 input Adder Circuit
		Difference between Combinational and Sequential Logic circuits	To build and test the operation of 8:1 Multiplexer
		Race around condition in JK flip-flop, Master- Slave JK Flip Flop	To build and test the operation of 1:8 De-Multiplexer
			5. To implement Decade Counter Using Digital IC
		Digital Technique & Microprocessors	**Digital Technique & Microprocessors**
		Explain BCD to GRAY convertor	Verify the truth table of De-Morgan's second theorem using basic logic gates
		Illustrate Laws of Boolean algebra	Develop an assembly language program to add 8 bit and 16-bit BCD numbers
		Explain minimum mode and maximum mode configuration of 8086	Develop an assembly language program to Subtract two 8-bit and 16-bit signed/ unsigned hexadecimal numbers
		Addressing modes of 8086 - Direct, based, indexed, based-indexed addressing, assembler directives	Develop assembly language programming for multiplication and division
			Workshop ECE
			Build the following circuit using basic simulation software: - 1. Full wave rectifier with pi filter 2. Bridge rectifier with LC filter

DEMO TOPICS FOR PART TIME INSTRUCTOR SELECTION PROCESS FOR THE SESSION 2025-26 (ODD SEM)

S.No.	Department	Topic
1	CO / IT	Network cabling
		Setup wifi
		Assemble & disassemble of various parts of Computer System
		OS installation
		C Program on pointers, structurs and file management
		C++ Program on class, overloading, inheritance
		Data structure using C - Tree traversal
		Data structure using C - Bubble sorting, radix sorting
		Mail merge
		Prepeartion of result sheet in Excel
2	B Tech CSE	C Programming Lab - Array and Structures, Pointers, Functions, Recursions, File Handling
		OS Installations
		Hardware and Networking
		Stack Data Sructure
		Queue Data Structure
		Linked List
		Dynamic memory allocation
		Searching algorithm
		Sorting Algorithm
		Tree Data Structure
3	B Tech & Diploma Civil	**BUILDING DRAWING & PLANNING WITH CAD** (a) Preperation of various types of plan & sectionfor a framed structure building (b) Working drawing of framed structure (c) Planning of Dog Legged stair case for residental & public building
		CONCRETE TECHNOLOGY (a) Test for cement (b) Test for aggregate (fine & course) (c) Test for concrete
		SURVEYING (a) Chain surveying (b) Compass surveying (c) Levelling
4	Hotel Management	Plan & prepare a 03 course menu of your choice which should include a starter veg/non veg, one main course & a dessert
		Plan & prepare a 05 course continental menu & lay the table according to it
		Prepare a flower arrangement as per the theme given
		Plan & prepare a role play for a fussy guest
5	Electrical	Verification of Kirchoff's laws
		Measurement of power in single phase AC circuit
		Measurement of three phase power by two wattmeter method
		Load test on single phase transformer
		Open circuit and short circuit test of single phase transformer
		Load test on single phase induction motor
		Staircase wiring
		Go down wiring
		Straight joint and T-Joint
		Starting and running of single phase induction motro in formward & reverse direction