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

S. No	Details of requirement	Educational Qualification	Date and time	
			Practical	Theory
1	Guest Lecturer (CO/IT)	First class B.E./B.Tech., from recognized university in relevant course	05.11.2022 9:30 am to 11:30 am	05.11.2022 2:00 pm to 2:30 pm
2	Guest AP (Civil)	B.E./B.Tech., and M.E.,/M.Tech., in relavant course from recognized university with first class or equivalent either in B.E./B.Tech., and M.E./M.Tech.	05.11.2022 9:30 am to 11:30 am	05.11.2022 2:30 pm to 3:00 pm
3	Guest AP (ECE)		05.11.2022 9:30 am to 11:30 am	05.11.2022 3:00 pm to 3:30 pm
4	Guest AP (Physics)	First class Master's Degree in appropriate subject with first class or equivalent at Bachelor's or Master's level	05.11.2022 9:30 am to 11:30 am	07.11.2022 2:00 pm to 2:30 pm
5	Guest AP (English)		------	07.11.2022 2:30 pm to 3:00 pm
6	Guest AP (Maths)		-------	07.11.2022 3:00 pm to 3:30 pm
7	Part time Instructors (Physics/ Chemistry)	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	05.11.2022 9:30 am to 11:30 am	-------

Dean (Academics)

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DEMO TOPICS FOR GUEST AP, GUEST LECTURER AND PART TIME INSTRUCTOR DBRAIT 2022-2023 (ODD SEMESTER)

DEPARTMENT	THEORY	PRACTICAL
GL (CO/IT)	1. Principle of database – normalization, ER model 2. Advanced java programming – socket programming, AWT 3. Client side scripting – function, cookies 4. Data structure – stack, queue 5. Computer graphics – windowing, clipping 6. Operating system – memory management 7. Software testing – test management, defect management 8. Object oriented programming using C++ - inheritance & its types 9. Advance computer network – IP addressing, transition from IPv4 to Ipv6 10. Database management system – triggers, transaction processing	1. Advanced java programming – ➢ Write a program to implement chat server using Server Socket & Socket class ➢ Design form with components list, choice, label, checkbox, text field 2. Client side scripting – ➢ Develop java script o implement function ➢ Develop a webpage for creating session & persistent cookies 3. Applied multimedia techniques – ➢ Design wallpaper showing water drop effects of an image ➢ Design poster using different text effect ➢ Develop webpage which shows animation with sound effect 4. Data structure – radix sort, binary searching 5. Computer graphics – DDA, Breshenham's algorithm 6. Operating system – CPU scheduling (FCFS) 7. Workshop practices – assemble & dissemble of various part of computer systems 8. Object oriented programming using C++ - ➢ Implementing the concept of multiple inheritances based on the given scenario ➢ Implement the concept of copy constructor 9. Advance computer network – ➢ Configure OSPF & RIP using packet tracer ➢ Establish a client-server architecture using Ipv6 addressing in packet tracer

		10. Database management system – ➢ Implementing trigger for insert, updating & deleting from the database ➢ Design a database based on the given requirement and execute required DML commands by following referential integrity constraints if required
GAP (English)	1. Strategies for effective communication 2. Comprehension of technical & non-technical materials 3. Basics of phonetics 4. Technical writing 5. Presentation skills 6. Office drafting 7. Tenses 8. Speeches- formulating speeches for welcome, farewell & vote of thanks 9. Use of articles in formulating sentences 10. Active & passive voice	
GAP (Civil)	1. Bending Stress 2. Moment distribution method 3. Environmental Engineering 4. Transportation of sewage 5. Activated sludge process 6. Flocculators 7. Contour surveying 8. Tachometric Surveying 9. One dimensional consolidation 10. Workability of concrete 11. Hydration of cement	1. Determination of quality of water 2. Test on cement 3. Test on aggregate 4. Tachometric survey 5. Compass surveying 6. Levelling 7. Test of steel
GAP (ECE)	1. full subtractor 2. arithmetic operations on 8-bit data – addition , subtraction, multiplication & division with example	1. Design full and half adder 2. Build/test function of SR flip flop using NAND gate 3. Construct SR, JK, D & T flip flop and verify its truth table

	3. synchronous and asynchronous counter 4. PN junction diode 5. Zener diode 6. Flip flop 7. 89C51 microcontroller 8. Memory architecture of 8051 9. Block diagram of 8051 10. Mod N counter	4. Identify pins of 8051 & AVR microcontroller 5. Execute 'C' program to perform following arithmetic operations on 8-bit data – addition , subtraction, multiplication & division 6. Develop & test a 'C' program to perform data transfer from source to destination (use internal memory locations) 7. Develop & test a 'C' program to turn ON LEDs with Key(s) press 8. Interface 89C51 microcontroller & write C program to display string on given 16*2 LCD 9. Test the performance of PN junction diode 10. Test the performance of Zener diode Identify the three terminals of transistors using digital multimeter
GAP (Physics)	1. Laser & fibre optics 2. Hall effect in semiconductors 3. Diffraction grating & its application 4. Thermal properties of matter 5. Nanomaterials – its synthesis, properties & application 6. Non-destructive testing of materials 7. Super conductors & its application 8. Double refraction & Huygen's theory of double refraction 9. Quantum theory of para magnetism & ferro magnetism 10. Polarisation & its properties	1. To study of co-efficient of thermal conductivity of a bad conductor by using Lee's disc method 2. Determination of diameter of a thin wire- air wedge method 3. To determine (a) the wavelength of sodium vapour light/ or (b) the radius of curvature of the surface of a Plano-convex lens, by forming Newton's rings 4. Determine the specific resistance of given wire 5. Use Searle's method to determine the Young's modulus of given wire 6. Determination of radius of curvature of a planoconvex lens by using Newton's ring method 7. To determine the refractive index of a glass prism by using pin method 8. Vibration magnetometer – calculation of magnetic moment & pole strength

		9. To determine the co-efficient of viscosity of the given liquid by using stokes method 10. To determine the buoyancy force on solid immersed in liquid (Archemedies principle)
GAP (Maths)	1. Differentiation of implicit function 2. Multiple integral & its application areas by double integration 3. Reduction of quadratic form into canonical for by orthogonal transformation 4. Eigen value & Eigen vector of a real matrix 5. Linear differential equations of higher order 6. Solve simultaneous equations in three variables using Cramer's rule 7. Definition of fraction, proper, improper fraction & partial fraction 8. Application of Laplace equation in differential equation & integral equation 9. Fourier transforms & its transverse 10. Gauss divergence theorem & stokes theorem	

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Demo Topics for Part Time Instructors

DEPARTMENT	PRATICAL TOPICS
Physics	1. To study of co-efficient of thermal conductivity of a bad conductor by using Lee's disc method 2. Determination of diameter of a thin wire- air wedge method 3. To determine (a) the wavelength of sodium vapour light/ or (b) the radius of curvature of the surface of a Plano-convex lens, by forming Newton's rings 4. Determine the specific resistance of given wire 5. Use Searle's method to determine the Young's modulus of given wire 6. Determination of radius of curvature of a planoconvex lens by using Newton's ring method 7. To determine the refractive index of a glass prism by using pin method 8. Vibration magnetometer – calculation of magnetic moment & pole strength 9. To determine the co-efficient of viscosity of the given liquid by using stokes method 10. To determine the buoyancy force on solid immersed in liquid (Archemedies principle)
Chemistry	1. Determine the pH value of given solution using pH meter & universal indicator 2. Determine thinner content in oil paint 3. Determine total hardness, temporary hardness and permanent hardness of water sample by EDTA method 4. Standardization of KMnO4 solution using standard oxalic acid IV & determine the %age of iron present in given Hematite ore by KMnO4 solution 5. Determination of carbonates & bicarbonates in water 6. Determination of chloride content in a given sample of water 7. Estimation of vinegar 8. Estimation of available chlorine in bleaching powder 9. Estimation of ferrous by permagnometry 10. Estimation of magnesium by EDTA