



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

Date: ૦૩ /૦૭/2024

GTU - ADVERTISEMENT NO: 02/2024 & 04/2024

SYLLABUS for PHASE - I - Primary Examinations for Non-Teaching Posts of GTU & GPERI

Name of Posts

○ ASSISTANT REGISTRAR

Sr. No.	Topics Covered
Total Marks: 100	
1)	English Grammar
2)	Computer / I.C.T. Aptitude
3)	Data Analysis & Interpretation
4)	General Awareness :- Indian Economy / Geography / Natural Resources/ Population / Government Schemes – With Special Reference to Gujarat State, Role & Functions of Various Industrial Associations of India / Gujarat (CII, ASSOCHAM, GCCI, ICC, FICCI, NASSCOM),
5)	The Constitution of India :- Preamble, Fundamental Rights and Fundamental Duties, Directive Principles of State Policy, Composition of Parliament, President of India, Governor, Judiciary, Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society, Attorney General, Panchayati Raj Institutions, Finance Commission,
6)	NITI Aayog - Role and Functions, Right to Citizen for Public Service Act, 2013 (RCPS Act), Right to Information Act, 2005 (RTI Act)
7)	Modern History of India with special reference to Gujarat State.
8)	Current Affairs: Regional / National / International Events related to Political / Economical / Sports / Education
9)	Professional/Technical Education: Education System in Gujarat-State Policy, Knowledge Consortium of Gujarat (KCG), Educational Problems of socially deprived classes and women, MHRD - Higher Education

Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580

Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	Institutions (IIT, NITs, IIMs, IISc, IISER, IIITMs, NITTTRs, UGC, AICTE, PCI, DEC, BCI, NCTE, INC, COA, MCI, DCI, VCI), Challenges before Higher Education, Impact of Globalization and Privatization on Indian Education, Higher Education System (Diploma, Degree, Masters, Doctorate, Vocational Education and Training (VET)), Rashtriya Uchchattar Shiksha Abhiyan (RUSA), Higher Education Ranking Agency (NBA, NAAC), Fee Regulatory Committee –Technical (FRC) - Gujarat, University Administration Systems, Professional / Technical Education as a tool of Human Resource Development, India's present status, Higher Education System and Training, Government Policy, Programs, Schemes and Challenges, Issues and efforts for solution, Propagation of Professional and Technical Education, Regulatory and Sanctioning Institutions.
--	--

○ COMPUTER PROGRAMMER

Sr. No	Topics	Total Marks: 100
1)	English Grammar	50 Marks
2)	Computer / I.C.T. Aptitude	
3)	Data Analysis & Interpretation	
4)	General Awareness :- Indian Economy / Geography / Natural Resources/ Population / Government Schemes – With Special Reference to Gujarat State, Role & Functions of Various Industrial Associations of India / Gujarat (CII, ASSOCHAM, GCCI, ICC, FICCI, NASSCOM),	
5)	The Constitution of India :- Preamble, Fundamental Rights and Fundamental Duties, Directive Principles of State Policy, Composition of Parliament, President of India, Governor, Judiciary, Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society, Attorney General, Panchayati Raj Institutions, Finance Commission,	
6)	NITI Aayog - Role and Functions, Right to Citizen for Public Service Act, 2013 (RCPS Act), Right to Information Act, 2005 (RTI Act)	

Winner of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

7)	Modern History of India with special reference to Gujarat State.	
8)	Current Affairs: Regional / National / International Events related to Political / Economical / Sports / Education	
9)	Professional/Technical Education: Education System in Gujarat-State Policy, Knowledge Consortium of Gujarat (KCG), Educational Problems of socially deprived classes and women, MHRD - Higher Education Institutions (IIT, NITs, IIMs, IISc, IISER, IIITs, NITTTRs, UGC, AICTE, PCI, DEC, BCI, NCTE, INC, COA, MCI, DCI, VCI), Challenges before Higher Education, Impact of Globalization and Privatization on Indian Education, Higher Education System (Diploma, Degree, Masters, Doctorate, Vocational Education and Training (VET)), Rashtriya Uchchattar Shiksha Abhiyan (RUSA), Higher Education Ranking Agency (NBA, NAAC), Fee Regulatory Committee - Technical (FRC) - Gujarat, University Administration Systems, Professional / Technical Education as a tool of Human Resource Development, India's present status, Higher Education System and Training, Government Policy, Programs, Schemes and Challenges, Issues and efforts for solution, Propagation of Professional and Technical Education, Regulatory and Sanctioning Institutions.	
10)	1) Programming in C - Arrays: Declaration; initialization; 2-dimensional and 3-dimensional array, passing array to function. - Pointers: variables, swapping data, swapping address v/s data, pointers and arrays, pointers to pointers, pointers to functions, using pointers with arrays. - Functions; prototype, passing parameters, Recursive functions. Command-line arguments. Introduction to macros. - File processing in C and C++	50 Marks



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

2) Programing in C++

- Introduction to classes and objects; Constructor; destructor; Operator overloading; Function overloading; function overriding; friend function; copy constructor;
- Inheritance: Single, Multiple, and Multilevel
- Inheritance: Virtual function and Polymorphism: Dynamic binding, Static binding; Virtual functions.
- Templates: Exception Handling.

3) Introduction to Windows Programming:

- .Net Architecture, Support for Object orientation and Interfaces , Distinct Values and Reference types , Strong Data Typing , Error handling and Exceptions, .net framework classes , namespaces , creating .net applications using C#.NET , Creating windows forms , windows controls , windows services , The role of ASP in the .net enterprise architecture. The .net Environment, Working with visual studio 2013, Assemblies, .net Security, Localization, Deployment. ASP.NET Basics , variables , predefined data types : Value types and reference types , CTS types, Conditional statements , jump statements , Enumerations , Arrays , Using statement , Namespace , Aliases , The Main() Method , Multiple Main Methods , Passing Arguments to main() . More on compiling C#.NET files, console I/O, Using Comments, the C#.NET preprocessor directives. The object class Inheritance : Types of inheritance , virtual methods , hiding methods , calling base versions of functions ,

Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	sealed classes and methods , constructors of derived classes , modifiers , interfaces , derived interfaces. The checked and unchecked operators , The as operator , The size of operator , The type of operator , Nullable types and operators , The Null coalescing operator , operator precedence , Type safety, Type conversions , Boxing and unboxing , comparing objects for equality , Operator overloading, User defined casts. Delegates and Events, Memory management and Pointers, Strings and regular expressions, Collections, Array Lists, The Stack, Queue, and Sorted List class, Hash Tables and Dictionaries. Error and Exception Handling, Threading, Applications with multiple threads, Manipulating Threads, Creating Threads with Thread pool. Data Access with .net : Ado.net overview , Using Database Connections , Executing commands , Fast Access, The Data Reader, Managing data and relationship : The Dataset Class , XML schemas , Populating a Dataset , Persisting Dataset Changes , Working with ADO.net , windows forms , viewing .net data.	
--	---	--

○ OFFICE SUPERINTENDENT

Sr. No.	Topics Covered	Total Marks: 100
1)	English Grammar	
2)	Computer / I.C.T. Aptitude	
3)	Data Analysis & Interpretation	
4)	General Awareness :- Indian Economy / Geography / Natural Resources/ Population / Government Schemes –	

Winner of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	With Special Reference to Gujarat State, Role & Functions of Various Industrial Associations of India / Gujarat (CII, ASSOCHAM, GCCI, ICC, FICCI, NASSCOM),	
5)	The Constitution of India :- Preamble, Fundamental Rights and Fundamental Duties, Directive Principles of State Policy, Composition of Parliament, President of India, Governor, Judiciary, Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society, Attorney General, Panchayati Raj Institutions, Finance Commission,	
6)	NITI Aayog - Role and Functions, Right to Citizen for Public Service Act, 2013 (RCPS Act), Right to Information Act, 2005 (RTI Act)	
7)	Modern History of India with special reference to Gujarat State.	
8)	Current Affairs: Regional / National / International Events related to Political / Economical / Sports / Education	
9)	Professional/Technical Education: Education System in Gujarat-State Policy, Knowledge Consortium of Gujarat (KCG), Educational Problems of socially deprived classes and women, MHRD - Higher Education Institutions (IIT, NITs, IIMs, IISc, IISER, IIITMs, NITTTRs, UGC, AICTE, PCI, DEC, BCI, NCTE, INC, COA, MCI, DCI, VCI), Challenges before Higher Education, Impact of Globalization and Privatization on Indian Education, Higher Education System (Diploma, Degree, Masters, Doctorate, Vocational Education and Training (VET)), Rashtriya Uchchattar Shiksha Abhiyan (RUSA), Higher Education Ranking Agency (NBA, NAAC), Fee Regulatory Committee -Technical (FRC) - Gujarat, University Administration Systems, Professional / Technical Education as a tool of Human Resource Development, India's present status, Higher Education System and Training, Government Policy, Programs, Schemes and Challenges, Issues and efforts for solution, Propagation of Professional and Technical Education, Regulatory and Sanctioning Institutions.	

Awards of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424, Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580

Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

10)	Gujarat Civil Services Rules	
11)	Gujarat Financial Rules - 1971 as amended from time to time	
12)	State Purchase Policy as Prescribed time to time by the Government of Gujarat	

○ ACCOUNTANT

Sr. No	Topics	Total Marks: 100
1)	English Grammar	50 Marks
2)	Computer / I.C.T. Aptitude	
3)	Data Analysis & Interpretation	
4)	General Awareness :- Indian Economy / Geography / Natural Resources/ Population / Government Schemes – With Special Reference to Gujarat State, Role & Functions of Various Industrial Associations of India / Gujarat (CII, ASSOCHAM, GCCI, ICC, FICCI, NASSCOM),	
5)	The Constitution of India :- Preamble, Fundamental Rights and Fundamental Duties, Directive Principles of State Policy, Composition of Parliament, President of India, Governor, Judiciary, Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society, Attorney General, Panchayati Raj Institutions, Finance Commission,	
6)	NITI Aayog - Role and Functions, Right to Citizen for Public Service Act, 2013 (RCPS Act), Right to Information Act, 2005 (RTI Act)	
7)	Modern History of India with special reference to Gujarat State.	
8)	Current Affairs: Regional / National / International Events related to Political / Economical / Sports / Education	
9)	Professional/Technical Education: Education System in Gujarat-State Policy, Knowledge Consortium of Gujarat (KCG), Educational Problems of socially deprived classes and women, MHRD - Higher Education Institutions (IIT, NITs, IIMs, IISc, IISER, IIITMs, NITTTRs, UGC, AICTE, PCI, DEC, BCI, NCTE, INC, COA, MCI,	

Winners of : ICT Enabled University Award E-India - 2009 ♦ Manthan Award - 2009 ♦ GESIA Award - 2011
♦ Digital Learning WES - 2011 Award ♦ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads,

Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580

Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015.
Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat.
e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	DCI, VCI), Challenges before Higher Education, Impact of Globalization and Privatization on Indian Education, Higher Education System (Diploma, Degree, Masters, Doctorate, Vocational Education and Training (VET)), Rashtriya Uchchattar Shiksha Abhiyan (RUSA), Higher Education Ranking Agency (NBA, NAAC), Fee Regulatory Committee - Technical (FRC) - Gujarat, University Administration Systems, Professional / Technical Education as a tool of Human Resource Development, India's present status, Higher Education System and Training, Government Policy, Programs, Schemes and Challenges, Issues and efforts for solution, Propagation of Professional and Technical Education, Regulatory and Sanctioning Institutions.	
10)	Gujarat Financial Rules - 1971 as amended from time to time	
11)	1) Statistics and Mathematics: Data collection and analysis, measures of central tendency and measures of dispersion, sampling and methods of sampling, probability, index numbers, correlation, constant correlation, regression time series, statistical quality control, function, continuity, limit, Derivatives, permutation and combination. 2) Economics and Financial Administration: Introduction to economics, demand, supply and its relative value, concepts of income and expenditure, national income, inflation, economic reform policies, finance commission, capital disinvestment; monetary and fiscal policies, public debt, budget - types and form, budgetary process, public accounts and audit, budget as a political instrument, the role of the Comptroller and Auditor General (CAG), NITI Aayog. 3) Management and International Business: Nature and importance of management, principles of management, functions of management, motivation and leadership; Introduction to international, business, promoting factors, advantages and limitations; Foreign exchange, Balance of payments and methods to correct disequilibrium, India's Foreign Trade Policy;	50 Marks

Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

4) International Organizations:

WTO World Bank IMF IFC IDA ADB.

5) Public Administration:

Introduction, organizational approaches and principles, organizational structure, administrative behavior, personnel administration, financial administration, coordination, delegation and supervision, control over public administration, performance studies, civil service performance and Administrative reform.

6) Financial Accounting:

Basic accounting concepts, principles- assumptions, types of accounts and their rules, process of accounts, trial balance, final accounts, rectification of errors and bank reconciliation statement, partnership accounts -admission, retirement, death and dissolution, Company's accounts, financial statements, issue and forfeiture of shares, accounts of underwriting commission and valuation of goodwill and shares as per Companies Act, 2013. Indian Accounting Standards (Ind AS).

7) Income Tax Act and Goods and Services Tax (GST):

Basic concepts, tax incidence, Definitions in Income Tax Act, 1961, exempted Incomes, Residential Status, Computation of Taxable Income under various Heads, Deductions and Reliefs, Computation of Taxable Income of Individuals and Firms, Deductions of Tax, Filing of Returns, Different Types of Assessment, defaults and penalties, tax planning, tax evasion and tax avoidance, GST concept and GST laws.

8) Cost and Management Accounting:

Cost Accounting: Concept of Cost, Types of Cost, Classification of Cost, Cost Centres, Cost Accounting and Cost Ascertainment; Fixed, variable and Semi-variable Cost, Direct Material, Direct Labour, Direct expenses, Overhead Costs, Prime Cost, Factory Cost, Production cost, Sales cost; Stock sheet, Different methods of Costing: Unit Costing, Process Costing, Batch and job Costing, Service Costing.

Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	9) Managements Accounting: Methods of financial statement analysis, marginal cost and break-even analysis, decision making, proportional cost, budgetary control, types of budget, cash budget, flexible budget and zero-base budgeting. 10) Accounting and Finance Computer Applications: Accounting and Finance Computer Applications – Tally. 11) Auditing – 1: Meaning and Basic Elements of Auditing, Features, Objectives, Types, Advantages, Internal Control, Statutory Auditor: Appointments, Qualifications, Rights and Duties; Vouching – Meaning and objectives, types, and duties of the auditor regarding valuation of assets and liabilities. 12) Company Audit: Company audit and related provisions of Companies Act, 2013, auditor's report and certificate, tax audit, duties of the auditor regarding profit distribution and Depreciation investigation audit programme.	
--	---	--

LABORATORY ASSISTANT:

- **GTU- SCHOOL OF ENGINEERING & TECHNOLOGY (GTU-SET)**
- **GPERI - COMPUTER**
- **GTU - SCHOOL OF MANAGEMENT STUDIES (GTU-SMS)**

Sr. No.	Topics Covered	Total Marks: 100
1)	English Grammar	50 Marks
2)	Quantitative Aptitude	
3)	Reasoning Ability (Verbal / Non-Verbal)	
4)	Computer / I.C.T. Aptitude	
5)	General Awareness: Indian Economy / Geography / Modern History / Population / Public Administration/ The	



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580

Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat, e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	Constitution of India/ Government Schemes with Special Reference to Gujarat.	
6)	University Administration (UGC / AICTE / PCI / COA)	
7)	Gujarati Grammar	
8)	Current Affairs: Political / Economical / Sports / Education pertaining to Regional / National / International Events	
9)	1. Computer Fundamentals & Applications: Evolution of Computers, Application: MSWord, MS-Excel & MS-Power Point, Open-source software, System software, Compilers. 2. Digital Electronics & Computer Architecture: Number Systems, Logic Gates, Boolean Algebra, Combinational & Sequential Logic, Memory Organization, Cache Memory, Instruction formats & Addressing Modes, I/O system, DMA controller. 3. Computer Hardware & PC Organization: Component of computer system & their interconnection, Types of Memory, Peripherals and Interfacing, Microprocessor 8085/8086: Architecture, Instruction sets, interfacing; Microcontrollers. 4. Programming & Data Structures: Constants, variables and data types, Operators, Type Casting, Loop, Control Statements, Functions, Structures and Union, Files, Data Structures: Arrays, Pointers, Stack, Queue, Linked List, Tree, Searching & Sorting Algorithms, Object Oriented Programming using Java: OOPs Fundamentals : Classes, Object, Abstraction, Encapsulation; Language Constructs, Class Members, Private, Public, Protected, Constructor, Overloading, Inheritance, Exception Handling.	50 Marks



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580

Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

5. Computer Networks And Security: Networking Model; OSI & TCP/IP, Layers, Protocol And Services, Functionality Of Different Layer, Networking Topologies, Connectivity standard & Devices: Transmission Media: Guided & Unguided Media; Ethernet, LAN, WAN, Routers, Gateways, Bridge, Switches. Network installation & Management: MAC Address, IP Addressing, NAT, Trouble Shooting Tools for wired & wireless networks. Security: Internet Viruses, Internet Security Issues, Firewall, Data Encryption, Digital Signatures and Certificates.

6. Internet & Web Technologies: Internet Service Provider, URL, Domain Names, Client-Server Architecture, Web Server & hosting, Proxy Server, Email Server, Web Browsers, Website Design & Development: HTML Programming: Syntax and Rules, GUI Enhancement Technologies such as CSS, Java Script, Server-Side scripting, Multimedia & Animation tools for web designing; Search Engine Optimization.

7. Operating System: Operating System, Types of OS, Processes life cycle, PCB, CPU scheduling, Synchronization, Deadlock, Memory management and virtual memory, Language processing: Pre-processor, Assemblers, Loaders and Linkers, Compilers, File systems, I/O systems, Protection and security.

8. LINUX: Basic Architecture of Unix/Linux System, File System & Structure, Linux Commands for files and directories, Creating and Editing Files, System Administration, Role of System Administrator, Managing User Accounts.

9. DBMS Fundamentals: Data Models, RDBMS, Database design (integrity constraints, normal



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424, Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	forms), E-R Model, Query Language; SQL: Create, Insert, Update, Delete, Select, DDL, DML and DCL Statements.	
--	--	--

LABORATORY ASSISTANT:

GTU- SCHOOL OF PHARMACY (GTU-SP)

Sr. No.	Topics Covered	Total Marks: 100
1)	English Grammar	50 Marks
2)	Quantitative Aptitude	
3)	Reasoning Ability (Verbal / Non-Verbal)	
4)	Computer / I.C.T. Aptitude	
5)	General Awareness: Indian Economy / Geography / Modern History / Population / Public Administration/ The Constitution of India/ Government Schemes with Special Reference to Gujarat.	
6)	University Administration (UGC / AICTE / PCI / COA)	
7)	Gujarati Grammar	
8)	Current Affairs: Political / Economical / Sports / Education pertaining to Regional / National / International Events	
9)	Pharmaceutical Chemistry and Pharmaceutical Analysis: • Concept of Normality and Molarity, Preparation of various reagents as per Indian Pharmacopoeia. • Preparation and Standardization of various inorganic & organic compounds. Limit test of various inorganic compounds • Principle of various analytical assay methods like acid base titration, Cerimetry, Iodometry,	50 Marks



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580

Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

Complexometric, Permanganometry, non-aqueous titration, precipitation titration

- Calibration, operation, and principle involve in different instruments like pH meter, potentiometer, conductometer, colorimeter, Flame photometer UV spectroscopy, HPLC, HPTLC, Spectrophotofluorometer and other instruments used in analytical laboratory.
- Classification and Qualitative analysis of organic compounds
- Safety and Hazardous guidelines for the chemicals & glasswares.

Pharmaceutics

- Calibration, operation, and principle involved in different instruments like friabilator, hardness tester, tablet punching machine, disintegration tester, dissolution apparatus, fluid bed dryer, coater, viscometer, and other instruments / equipment used in pharmaceutical technology.
- Basic ingredients used in the preparation of syrup, suspension, emulsion, cream, ointment, jelly, powder and granules, Suppositories, Semisolid preparation, elixir, linctus, solution, tablet, capsule, aerosols, injectable preparation, and other dosage forms.
- Various Unit Operation Techniques and its application
- Determination of solubility, pKa value, Partition co-efficient, particle size, particle size distribution, bulk density, true density, porosity, angle of repose and stability constant, surface tension, HLB number, Freundlich and Langmuir constants, critical micellar concentration, viscosity, sedimentation volume, reaction rate and various methods used in their determination
- Introduction and study of different equipment and processing, e.g., B.O.D. incubator, laminar



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

flow, aseptic hood, autoclave, hot air sterilizer, deep freezer, refrigerator, microscopes used in experimental microbiology

- Sterilization techniques, Microbiological assay and Sterility testing

Pharmacology

- Determination of bleeding time, clotting time, haemoglobin content, blood group, erythrocyte sedimentation rate, heart rate and pulse rate, blood pressure, tidal volume and vital capacity, basal mass index
- Identification tests for various biomolecules, determination methods for blood sugar level, cholesterol, creatinine, and other biochemical parameter
- Study of common laboratory animals, Maintenance of laboratory animals and animal house as per CPCSEA guidelines, Common laboratory techniques. Blood withdrawal, serum and plasma separation, anesthetics and euthanasia used for animal studies, Study of different routes of drugs administration in mice/rats
- Preparation of various solution to check effect of various drugs on various body parts of laboratory animals

Pharmacognosy

- Determination of stomatal number and index, vein islet number, vein islet termination, palisade ratio, size of starch grains, calcium oxalate crystals, Fiber length and width, number of starch grains by lycopodium spore method, extractive values, moisture content, swelling index of plant material
- Extraction and isolation techniques



Signature

Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

LABORATORY ASSISTANT

GTU- SCHOOL OF APPLIED SCIENCES & TECHNOLOGY (GTU-SAST)

Sr. No.	Type of Test / Topics Covered	Total Marks: 100
1)	English Grammar	50 Marks
2)	Quantitative Aptitude	
3)	Reasoning Ability (Verbal / Non-Verbal)	
4)	Computer / I.C.T. Aptitude	
5)	General Awareness: Indian Economy / Geography / Modern History / Population / Public Administration/ The Constitution of India/ Government Schemes with Special Reference to Gujarat.	
6)	University Administration (UGC / AICTE / PCI / COA)	
7)	Gujarati Grammar	
8)	Current Affairs: Political / Economical / Sports / Education pertaining to Regional / National / International Events	
9)	Fundamental of Physiology General outline along with the functional anatomy of various body systems. Cell: Structure & function. Blood: Blood cells, Hemoglobin, Blood groups, Coagulation Factors, Anemia & Immunoglobulins. Cardiovascular system, Respiratory System, Gastrointestinal System, Excretion system, Central Nervous System, Reproductive System, Skin and Muscular System. Basics of Biochemistry Concepts of Molecular weight, Atomic weight, Normality, Molarity, Standards etc.	50 Marks



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

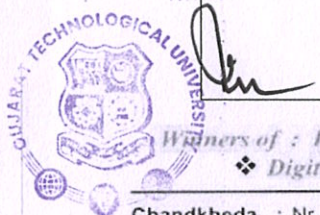
Atomic structure, Valence, Acids, Bases, Salts, & Indicators.
Chemistry of carbohydrates & their related metabolism.
Amino acids: Definition, classification, essential & non-essential amino acids.
Chemistry of Nucleic acids: DNA Structure and function, RNA Types: Structure and function.
Vitamins: Fat & water soluble vitamins, sources, requirement, deficiency disorders & biochemical functions.
Enzymes: Introduction, definition, classification, coenzymes, isoenzymes, properties, factors affecting enzyme action, enzyme inhibition, diagnostic value of serum enzymes.

Basic Hematological Techniques

Blood collection, Anticoagulants used in Hematology, Normal values in Hematology.
Basic Hematological Techniques: RBC count, Hemoglobin estimation, Packed cell volume.
Stains used in Hematology, Morphology of red cells, Morphology of Leukocytes and platelets.

General Microbiology

Introduction & History of Microbiology.
Microscopy
Classifications, morphology, growth and maintenance of Microbes.
Sterilization and Disinfection, Culture Media, Staining Methods.
Anaerobic culture methods and Antibiotic sensitivity testing.
Identification of microbes by traditional and molecular techniques.
Disposal of Laboratory/Medical Waste.



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424, Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	Laboratory Instrumentation Principle, types & applications of.... Centrifuge, Thermal Cycler, Weighing Balance, Laminar Air Flow, Biosafety Cabinet, Gel Documentation System, Electrophoresis, Spectrophotometer, ELISA Plate Reader, Bacteriological Incubator, Sonicator, Autoclave, Hot Air Oven, pH Meter. Basic Biotechnology Techniques The basic principles of DNA and RNA isolation. Qualitative and quantitative determination of DNA and RNA. Plasmid isolation, Restriction Enzyme Digestion, Ligation and Gene cloning. Chromatography techniques, Cell Culture Techniques and Blotting Techniques.	
--	--	--

LABORATORY ASSISTANT-ELECTRICAL (GPERI)

Sr. No.	Type of Test / Topics Covered	Total Marks: 100
1)	English Grammar	50 Marks
2)	Quantitative Aptitude	
3)	Reasoning Ability (Verbal / Non-Verbal)	
4)	Computer / I.C.T. Aptitude	
5)	General Awareness: Indian Economy / Geography / Modern History / Population / Public Administration/ The Constitution of India/ Government Schemes with Special Reference to Gujarat.	
6)	University Administration (UGC / AICTE / PCI / COA)	
7)	Gujarati Grammar	
8)	Current Affairs:	

Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads,
Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580

Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015.
Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat.
e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	Political / Economical / Sports / Education pertaining to Regional / National / International Events	
9)	1. Introduction to Electric Generation Systems: Thermal Power Plants: Coal, Gas/ Diesel and Nuclear-based, Large and Micro-Hydro Power Plants, Solar and Biomass based Power Plants, Wind Power Plants, Economics of Power Generation and Interconnected Power System, 2. Basic Electrical Circuits: Ohms law, Kirchhoff's Voltage and current laws, Network Theorems, Solution of First and second order networks, Sinusoidal steady state analysis, Electrical Circuit Analysis Using Laplace Transforms, Two Port Network and Network Functions, Analog Electronic Circuits, Single Phase A.C Series Circuits, Single Phase A.C Parallel Circuits, Three Phase Circuits, Network Reduction and Principles of Circuit Analysis. 3. Electrical Machines: Magnetic fields and magnetic circuits, Electromagnetic force and torque: Fundamentals of AC machine windings, Pulsating and revolving magnetic fields. DC Generator, Classification, Armature reaction, characteristics of DC generators, DC motors, classifications, applications, different types of characteristics, Speed Control of DC motor, Testing of DC machines Transformers: Construction, No-load and Full load behaviour, parallel operation, sumpener test, three-phase transformers, different connections and applications. Induction Machines, Single-phase induction motors, Three-phase induction motors,	50 Marks

Website : ICT Enabled University Award E-India - 2009 ♦ Manthan Award - 2009 ♦ GESIA Award - 2011
♦ Digital Learning WES - 2011 Award ♦ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424, Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580

Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	Induction Generator, Alternator and Synchronous motor. 4. Power Plants: Electric Generation Systems Thermal Power Plants: Coal, Gas/ Diesel and Nuclear-based, Large and Micro-Hydro Power Plants, Solar and Biomass based Power Plants, Wind Power Plants, Economics of Power Generation and Interconnected Power System 5. Micro controller and Power Electronics : Architecture of Microcontroller 8051, 8051 Instruction Set and Programs, Assembly Language Programming, 8051 Internal Peripherals and Related Programs Power Electronic Devices, Thyristor Family Devices, Turn-on and Turnoff Methods of Thyristors, Phase Controlled Rectifiers, Industrial Control Circuits. Power switching devices, Thyristor rectifiers, DC-DC buck converter, DC-DC boost converter, Single-phase voltage source inverter, Three-phase voltage source inverter, current source inverter, Oscillators, Variable frequency drive, 6. Digital Electronics: Fundamentals of Digital Systems and logic families, Boolean Expressions, different gate circuits, Combinational Digital Circuits: Sequential circuits and systems, A/D and D/A Converters, Semiconductor memories and Programmable logic devices. 7. Power system : Basics of Transmission and Distribution, Transmission Line Parameters and Performance, Extra High Voltage Transmission, A.C Distribution System, Components of Transmission and Distribution Line Basic Concepts, Generation, Power System	
--	--	--



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

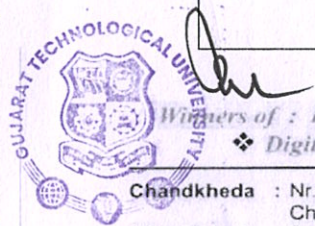
ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

Components, Transformers, Synchronous Machines, Over-voltages and Insulation Requirements, Generation of Over-voltages, Fault Analysis and Protection Systems, Switchgear, Introduction to DC Transmission & Renewable Energy Systems, Power Flow Analysis, Stability Constraints in synchronous grids, Control of Frequency and Voltage, Monitoring and Control, Power System Economics and Management. Power System Protection: Introduction and Components of a Protection System, Faults and Over-Current Protection, Equipment Protection Schemes, Digital Protection, Modeling and Simulation of Protection Schemes, System Protection, Different types of circuit breakers, HVDC systems, Different types of substation, components of substations, cables,

8. Installation and commissioning: Wiring Tools and Accessories, Electrical Wires and Underground Cables, Wiring Methods and wiring layout, Residential Building , godown wiring, staircase wiring, different ypes of wiring, Electrification, Protection of Electrical Installation, Illumination in Residential Installation, Electrical System Components, Residential and Commercial Electrical Systems, Testing of transformers, Testing of Circuit breakers, Testing of Induction motor, Cause and remedies for different types of fault in transformer and induction motors, Energy Conservation Basics, Energy Conservation in Electrical Machines, Energy conservation in Electrical Installation systems, Energy conservation through Cogeneration and Tariff, Energy Audit of Electrical System



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424, Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

	9. Illumination: Fundamentals of illumination, Types of lamps, Illumination Control and Control Circuits, Illumination for Interior Applications, Illumination for Interior Applications 10. Measurements and Instrumentation: Fundamentals of Measurements, Measurement of voltage and current, Measurement of Electric Power, Measurement of Electric Energy, Circuit Parameter Measurement, CRO and Other Meters, Pyrometer, PMMC and PMMI type instruments, 11. Control Systems :Introduction to control problem, Feedback Control, Time Response Analysis, Concept of Stability, Frequency-response analysis ,Bode plot, Root locus, polar plots 12. Recent developments: Multi-terminal HVDC, Indian Electricity Rules, 1956; Gujarat Electricity Industry (Reorganization & Regulation) Act, 2003; Tariff And Function of Electricity Regulatory Commission. Deregulation in modern power systems, 13. Electrical Power Utilization and Traction: Hybrid Electric Vehicles, Dynamics of hybrid and Electric vehicles, DC-DC Converters for EV and HEV Applications, DC-AC Inverter & Motors for EV and HEVs, Batteries , Electric Traction Basics of Traction, Power Supply Arrangements, Overhead Equipment, Electric Locomotive, Traction Motors and Train Lighting, Signalling and Supervisory Control	
--	--	--



Signature

Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

PROJECT OFFICER

Sr. No.	Type of Test / Topics Covered	Total Marks: 100
1)	English Grammar	50 MARKS
2)	Quantitative Aptitude	
3)	Reasoning Ability (Verbal / Non-Verbal)	
4)	Computer / I.C.T. Aptitude	
5)	General Awareness: Indian Economy / Geography / Modern History / Population / Public Administration/ The Constitution of India/ Government Schemes with Special Reference to Gujarat.	
6)	University Administration (UGC / AICTE / PCI / COA)	
7)	Gujarati Grammar	
8)	Current Affairs: Political / Economical / Sports / Education pertaining to Regional / National / International Events	
9)	Related to Education Qualification of the Post	50 Marks

TECHNICAL ASSISTANT LIBRARIAN (GPERI)

Sr. No.	Type of Test / Topics Covered	Total Marks: 100
1)	English Grammar	50 MARKS
2)	Quantitative Aptitude	
3)	Reasoning Ability (Verbal / Non-Verbal)	
4)	Computer / I.C.T. Aptitude	
5)	General Awareness: Indian Economy / Geography / Modern History / Population / Public Administration/ The Constitution of India/ Government Schemes with Special Reference to Gujarat.	



Honours of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424, Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Accredited with A+ Grade by NAAC

6)	University Administration (UGC / AICTE / PCI / COA)	
7)	Gujarati Grammar	
8)	Current Affairs: Political / Economical / Sports / Education pertaining to Regional / National / International Events	
9)	Related to Education Qualification of the Post	50 Marks

JUNIOR CLERK

Sr. No.	Topics Covered	Total Marks:-100
1)	English Grammar	
2)	Quantitative Aptitude	
3)	Reasoning Ability (Verbal / Non-Verbal)	
4)	Computer / I.C.T. Aptitude	
5)	General Awareness: Indian Economy / Geography / Modern History / Population / Public Administration/ The Constitution of India/ Government Schemes with Special Reference to Gujarat.	
6)	University Administration (UGC / AICTE / PCI / COA)	
7)	Gujarati Grammar	
8)	Current Affairs: Political / Economical / Sports / Education pertaining to Regional / National / International Events	

Registrar



Winners of : ICT Enabled University Award E-India - 2009 ❖ Manthan Award - 2009 ❖ GESIA Award - 2011
❖ Digital Learning WES - 2011 Award ❖ AIMS International Innovative University Award - 2013

Chandkheda : Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads, Chandkheda, Ahmedabad - 382 424, Gujarat, India Ph. : 079 - 232 67 500 Fax : +91 - 79 232 67 580
Ahmedabad : 2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Phone : + 91 - 79 - 26 300 499 / 599 Fax : + 91 - 79 - 26 30 1500
Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Government Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat. e-mail : info@gtu.ac.in URL : www.gtu.ac.in