



# PUNJAB BOARD OF TECHNICAL EDUCATION

21-A, Kashmir Block Allama Iqbal Town, Lahore

[www.pbte.edu.pk](http://www.pbte.edu.pk) - Tel # 042-99260193-94 (Ext. 115, 139)

R&D Section Tel # 042-99260273

No. PBTE/R&D/2021/927

Dated:-21-06-2021

## NOTIFICATION

The Chairman, Punjab Board of Technical Education, Lahore (PBTE) has been pleased to notify, after the approval of the Controlling Authority, the reduction in number of subjects (Approximately 50% credit hours) of PBTE courses / technologies for only regular students of DAE, DDM, D.Com, DBA, DHO, DCA, DSE, Matric Tech and Matric Vocational for 1<sup>st</sup>-annual examination-2021, on the analogy of exemption of subjects given by General Boards to Matric and Intermediate students as recommended by Inter Provincial Education Minister Conference (IPEMC), approved by National Command & Control Centre (NCOC) and announced by the Federal Minister for Education & Professional Training, Pakistan.

The subjects for which 1<sup>st</sup>-annual examination-2021 is to be held, are mentioned against the name of every course and technology. The lists are uploaded at PBTE website i.e. <https://www.pbte.edu.pk/Ptextbooks.aspx> which can be downloaded by the Institutes and students. All concerned are requested to note carefully.

  
SECRETARY

Copy to:

- 1- PS to the Minister, ICI & SD Department, Punjab, / The Controlling Authority, PBTE, Lahore.
- 2- PS to the Secretary, ICI & SD Department, Punjab, Lahore.
- 3- SA to Chairperson, TEVTA, Lahore.
- 4- PA to Chief Operating Officer, TEVTA, Lahore.
- 5- PA to Director General Academics, TEVTA, Lahore.
- 6- PA to Chairman, PBTE, Lahore.
- 7- PA to Secretary, PBTE, Lahore.
- 8- PA to Controller of Examinations, PBTE, Lahore.
- 9- PA to Deputy Secretary, PBTE, Lahore.
- 10- Senior Research Officer, PBTE, Lahore.
- 11- Deputy Controller of Examinations (Conduct), PBTE, Lahore.
- 12- Deputy Controller of Examinations (Secrecy), PBTE, Lahore.
- 13- System Analyst, PBTE, Lahore.
- 14- All the Principals of Affiliated Institutions with the request to disseminate it to the staff and students.
- 15- Web Administrator, with the request to upload on PBTE's website.

**PUNJAB BOARD OF TECHNICAL EDUCATION, LAHORE**  
**(LIST OF SUBJECTS TO BE EXAMINED FOR FRESH CANDIDATES' 1<sup>st</sup> ANNUAL EXAMINATION 2021)**

<b>Sr.</b>	<b>Technology</b>	<b>1<sup>st</sup> Year</b>	<b>2<sup>nd</sup> Year</b>	<b>3<sup>rd</sup> Year</b>
1.	<b>ARCHITECTURE TECHNOLOGY (2014)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics -II	Arch 312 Environmental Studies -II
		Phy 122 Applied Physics	Arch 212 Environmental Studies -I	Arch 353 Building Material & Construction -III
		Arch 133 Building Materials & Construction -I	Arch 253 Building Materials & Construction -II	Arch 362 Construction Management & Safety Practices
		Arch 112 Introduction to Architecture		
2.	<b>AUTOMATION TECHNOLOGY (12)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics	AT 322 Industrial Fluid Mechanics
		MT 143 Basic Engineering Drawing & CAD-I	AT 253 Electronics Devices & Circuits	AT 344 PLC
		AT 113 Introduction to Computing	AT 215 Digital Electronics	AT 363 Process Control
		AT 121 Occupational Health Safety & Environments	AT 233 Automation Fundamentals - II	AT 352 CNC Theory and Practice
		AT 131 Automation Fundamentals -I	AT 241 Industrial Materials	
3.	<b>BIO-MEDICAL TECHNOLOGY (12)</b>	Math 123 Applied Mathematics -I	Math 233 Applied Mathematics-II	BMI 312 Opto Electronics Fiber Optics and Laser
		COMP 122 Computer Applications	BMI 214 Solid State Electronics	BMI 342 Sterilization Autoclaves & Medical Gases Vacuum System

		ELT 114 Electrical Essentials & Networks	BMI 232 Digital Electronics	BMI 354 ECG and Ultrasound Equipments
		BMI 122 Fundamentals of Bio Medical Equipments & Interfaces	BMI 242 Operational Amplifier & Applications	BMI 362 Bio Chemistry & Clinic Lab Equipment
			BMI 252 Patient Safety & Ultrasound Radiation Physics	BMI 381 Bio Medical Equipments Maintenance Management & Application of Computer in Bio Medical Engineering
4.	<b>CHEMICAL TECHNOLOGY (2014)</b>	CHT 153 (Rev) Basic Chemical Engineering	CHT 254 (REV) Industrial Chemical Process -I	CHT 314 (Rev) Instrumental Methods of Analysis
		COMP 122 Computer Applications	CHT 263 Quantitative Analysis	CHT 324 (Rev) Industrial Chemical Process -Ii
		Math 113 Applied Mathematics -I	CHT 271 Safety Practice & Procedure	CHT 335 (Rev) Chemical Engineering -II
		MT 143 Basic Engineering Drawing & CAD-I	CHT 293 Chemical Engineering -I	CHT 361 Energy Conservation & Environmental Pollution
			Math 223 Applied Mathematics-II	
5.	<b>CHEMICAL TECHNOLOGY WITH SPECIALIZATION IN SUGAR (13)</b>	CHT 153 (Rev) Basic Chemical Engineering	CHT 254 (Rev) Industrial Chemical Process -I	CHT 314 (Rev) Instrumental Methods of Analysis
		COMP 122 Computer Applications	CHT 263 Quantitative Analysis	ST 313 BY Products & Waste Management
		Math 113 Applied Mathematics -I	CHT 271 Safety Practice & Procedure	ST 323 (Rev) Quality Control in Sugar Industry

		MT 143 (Rev) Basic Engineering Drawing & CAD-I	CHT 293 Chemical Engineering -I	ST 333 Sugar Technology -II
		ST 113 (Rev) Sugar Technology -I	Math 223 Applied Mathematics-II	
6.	<b>CIVIL TECHNOLOGY (2016)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	Civil 354 Concrete Technology & RCC Design
		Civil 104 Basic Civil Engineering Surveying	Civil 263 Engineering Mechanics	Civil 334 Hydraulics & Irrigation Engineering
		Civil 113 Engineering Materials & Construction Techniques	Civil 214 Advanced Civil Engineering Surveying	Civil 373 Soil Mechanics & Bridge Engineering
			Civil 232 Quantity Surveying	Civil 303 Advanced Quantity Surveying
7.	<b>CIVIL TECHNOLOGY (WITH SPECIALIZATION IN QUANTITY SURVEY) (12)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics	QS 335 Cost & Estimation 2
		QS 114 Engineering Materials & Construction Technology	QS 214 Engineering Survey	QS 343 Quality Control & Project Life Cycle
		Civil 133 Basic Engineering Drawing	QS 225 Cost & Estimation 1	QS 352 Contract Law & Conditions of Contract
			QS 232 Measurement of Construction Work	
8.	<b>COMPUTER INFORMATION TECHNOLOGY (2016)</b>	Math 123 Applied Mathematics -I	Math 233 Applied Mathematics-II	CIT 324 Network Administration
		CIT 134 Electronics-I	CIT 212 Object Oriented Programming with JAVA	CIT 333 Operating System
		CIT 113 Introduction to Computer Programming	CIT 223 Computer Network	CIT 303 Web Development with JAVA

			CIT 263 Relational Database Management System	
9.	<b>COMPUTER TECHNOLOGY (12)</b>	Math 123 Applied Mathematics -I	Math 233 Applied Mathematics	COMP 373 Computer Maintenance & Servicing
		COMP 114 Electrical Essentials & Networks	COMP 214 Computer Organization & Basic Programming	COMP 323 Computer Peripherals & Interfacing
		PHY 132 Applied Physics	COMP 243 Digital Electronics & Micro Processor	COMP 333 Data Communication & Computer Network
				COMP 382 Computer Hardware
		<b>Revised SOS 2020</b>	<b>Old SOS 2014</b>	<b>Old SOS 2014</b>
10.	<b>ELECTRICAL TECHNOLOGY (2014) (2020)</b>	Math 123 Applied Mathematics -I	Math 233 Applied Mathematics-II	ET 316(Rev.) A.C. Machines
		ET 125 Principles of Electrical Engineering	ET 213 D.C. Machines & Batteries	ET 322 Power Plant & Energy Conservation
		ET 143 Workshop Practice (Electrical)	ET 233 (Rev.) Utilization of Electrical Energy	ET 343 (Rev.) Telecommunication
			ET 242 Installation Planning & Estimating	ET 353 Repair & Maintenance of Electrical Equipment
11.	<b>ELECTRICAL TECHNOLOGY WITH SPECIALIZATION IN MINING (12)</b>	Math 112 Mathematics -I	Math 242 Math-II	ETM 322 Generation Distribution & Protective Devices
		ELTM 112 Elements of Mining	ELTM 212 Applied Mechanics	ETM 353 Basic Industrial Electronics
		ELTM 122 Geology -I	ETM 212 Utilization of Electrical Energy	ELTM 312 Industrial Management & Human Relations

		ELTM 143 Element of Machine	ETM 232 Basic Electricity & Circuits	ELTM 313 Rescue & Safety
		ELTM 133 Elementary Drawing	ETM 242 Mining Law	ETM 332 Electrical Machine -II
12.	<b>ELECTRONICS TECHNOLOGY (2014)</b>	Math 123 Applied Mathematics -I	Math 233 Applied Mathematics-II	OSHE 311 Occupational Safety, Health & Environment
		COMP 112 Computer Fundamental	ELTR 212 (Rev.) Propagation of Electromagnetic Waves	ELTR 303 Equipment Maintenance & Servicing
		ELTR 114 Electric Circuits	ELTR 243 (Rev.) Electrical Machine	ELTR 353 Power Electronics
			ELTR 253 Communication Systems	ELTR 363 Microcontroller Programming & Application
13.	<b>FOOD PROCESSING AND PRESERVATION TECHNOLOGY (2014)</b>	COMP 122 COMPUTER APPLICATIONS	Math 233 Applied Mathematics-II	FPPT 314 Meat Poultry & Fish Technology
		Math 123 Applied Mathematics -I	FPPT 223 (REV) Cereal & Baking Technology	FPPT 323 (REV) Beverages Processing Technology
		FPPT 113 Introduction to Food Science	FPPT 233 (REV) Dairy Processing Technology	FPPT 332 Food Packaging
		FPPT 133 Fundamental of Food Processing & Preservation	FPPT 242 Oil & Fat Processing Technology	FPPT 372 Food Plant Layout & Hygiene
			FPPT 252 Sugar & Confectionery Technology	FPPT 382 Quality Control

14.	<b>FOOD TECHNOLOGY (15)</b>	COMP 142 COMPUTER APPLICATIONS	Math 233 Applied Mathematics	FT 303 Cereal & Baking Technology
		Math 123 Applied Mathematics -I	FT 203 Food Chemistry & Analysis	FT 322 Nutrition & Dietetics
		FT 103 Introduction to Food Science & Technology	FT 223 Fruits, Vegetables & Beverage Technology	FT 343 Dairy Technology
		FT 123 General & Food Microbiology	FT 262 Food Plant layout & Hygiene	FT 363 Food Safety & Quality Assurance
			FT 282 Sugar & Confectionery Technology	
15.	<b>FOOTWEAR TECHNOLOGY</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	FTW 314 Design & Pattern Engineering -III
		FTW 114 Drawing & Fashion Designing	FTW 214 Design & Pattern Engineering -II	FTW 323 Footwear Production Technology -III
		FTW 124 Design & Pattern Engineering -I	FTW 223 Footwear Production Technology -II	FTW 344 Footwear Materials -II
		FTW 133 Footwear Production Technology -I	FTW 232 Grading of Shoe Components	FTW 371 Marketing & Brand Management
			FTW 244 Footwear Materials -I	
16.	<b>FURNITURE DESIGN &amp; TECHNOLOGY</b>	Math 113 Applied Mathematics-I	Math 212 Applied Mathematics-II	
		FDT 112 Drawing & Drafting Essentials-1	FDT 232 CAD & Modeling Essentials	

		FDT 122 Fundamentals of Design	FDT 254 Woodworking Machines-1	
		FDT 132 Wood & Allied Materials	FDT 261 Measurement & Cost Calculation-I	
17.	<b>GLASS CERAMICS AND POTTERY DEVELOPMENT TECHNOLOGY (16)</b>	Math 113 Applied Mathematics -I	GCT 213 Glass Technology	GCT 302 Glass Manufacturing Processes
		CH 112 Applied Chemistry	GCT 224 Particle Size Reduction & Glazes	GCT 323 Special / Technical Ceramics
		COMP 122 Computer Applications	GCT 263 Ceramics Raw Materials	GCT 353 Sanitary Wares & Tiles
		MT 143 Basic Engineering Drawing & CAD-I	MATH 223 Applied Mathematics	GCT 373 Fuels & Kilns
18.	<b>INFORMATION AND COMMUNICATION TECHNOLOGY (2014)</b>	Math 123 Applied Mathematics -I	Math 223 Applied Mathematics-II	ICT 343 Principles of Computer Networks
		ICT 133 Network Fundamentals	ICT 223 Computer Architecture	ICT 354 IT Systems, Troubleshooting and Repair
		ICT 143 Computer System Basics	ICT 243 Organizational System Security	ICT 373 Assessing the WAN
			ICT 263 LAN Switching and Wireless	
19.	<b>INSTRUMENTATION TECHNOLOGY (2015)</b>	Math 123 Applied Mathematics -I	Math 233 Applied Mathematics-II	IT 304 Industrial Instrumentation & Control



		IT 112 Basic Engineering Drawing & CAD	IT 232 Electrical Circuit Analysis	IT 313 Advance Control System
		IT 125 Principal of Electricity & Electronics	IT 254 Digital Circuits & Microprocessor Application	IT 353 Instrument Servicing & Calibration
		IT 132 Instrumentation Workshop Practice	IT 262 Instrumentation Drawing	IT 362 Sensors & Transducer
			IT 271 Safety Practice	
20.	<b>LAND AND MINE SURVEYING TECHNOLOGY (14)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	MIN 313 Coal Mining
		L&MS 123 SURVEYING -I	L & MS 214 Survey -II	L&MS 323 Surveying -III
		MIN 132 Introduction to Mining	CT 262 Quantity Surveying -I	L&MS 333 Surveying -IV
		MT 133 Elementary Drawing	CT 243 Civil Drafting -II	MIN 372 Rescue & Safety
		COMP 132 Computer -I		
21.	<b>LEATHER TECHNOLOGY (2016)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	LT 314 Principles of Leather Manufacturing -III
		LT 114 Principles of Leather Manufacturing -I	LT 224 Principles of Leather Manufacturing -II	LT 324 Upper Light & Specialized Finishes
		LT 124 Heavy Leather Manufacturing	LT 234 Crusting of Upper & Soft Leather	LT 353 Evaluation of Chemical Materials & Procedures

		LT 134 Tannery Machinery Practice	LT 244 Shoe Manufacturing	FTW 371 Marketing & Brand Management
		<b>SOS 2019</b>	<b>SOS 2019</b>	<b>SOS 2012</b>
22.	<b>MECHANICAL TECHNOLOGY</b>	Math 113 Applied Mathematics -I	PHY 212 APPLIED PHYSICS / APPLIED MECHANICS	Mech 312 Hydraulics & Hydraulics Machines
		MECH 127 Workshop Practice -I	Math 212 Applied Mathematics-II	Mech 343 Machine Design & Analysis
		COMP 152 Computer Applications	MECH 233 Computer Aided Design (CAD)	Mech 362 Materials Testing & Heat Treatment
		MECH 173 Engineering Drawing & Graphics	MECH 246 Workshop Practice-II	Mech 374 Workshop Practice -III
			MECH 272 Metrology	Mech 392 CNC Machines
23.	<b>MECHANICAL TECHNOLOGY (POWER) WITH SPECIALIZATION IN AUTO &amp; FARM MACHINERY (2015)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	AD 312 Motor Vehicle Inspection
		AD 133 IC Engine	AD 224 Workshop Practice -II	AD 343 Fuel Injection & Carburetion
		AD 143Automotive Electricity & Electronics	AD 213 Suspension, Steering & Breaks	AD 373 Computer Application in CAD & Automation
		COMP 142 Computer Applications	AF 223 Farm Machinery-I	AF 302 Soils Fertilizers
			AF 232 Crop Husbandry	AF 313 Farm Machinery -II
24.	<b>MECHANICAL TECHNOLOGY (POWER)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	AD 302 Motor Vehicle Driving

	<b>WITH SPECIALIZATION IN AUTO MOBILE &amp; DIESEL (2015)</b>	AD 133 I.C Engine	MT 252 Metrology	AD 312 Motor Vehicle Inspection
		AD 143 Automotive Electricity & Electronics	AD 203 Problems in I.C Engine	AD 343 Fuel Injection & Carburetion
		COMP 142 Computer Application	AD 213 Suspension, Steering & Breaks	AD 373 Computer Application in CAD & Automation
			AD 224 Workshop Practice -II	AD 383 Auto Body Building & Finishing
25.	<b>MECHANICAL TECHNOLOGY (PRODUCTION) WITH SPECIALIZATION IN FOUNDRY &amp; PATTERN MAKING (2015)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	FP 314 Foundry Technology -III
		MT 122 Engineering Drawing and CAD-I	MT 222 Engineering Drawing and CAD-II	FP 302 Product layout & CAD
		FP 113 Foundry Technology -I	FP 214 Foundry Technology -II	FP 372 Metallurgical Calculations
		FP 131 Wood Working Hand Tools	FP 224 Advance Pattern Making	FP 382 Material Testing
		FP 142 Ferrous Metallurgy	Elect 202 Applied Electricity & Electronics	
		FP 152 Basic Pattern Making		
26.	<b>MECHANICAL TECHNOLOGY (PRODUCTION) WITH SPECIALIZATION IN METALLURGY AND WELDING (15)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	MW 333 Material Testing
		MT 132 Basic Engineering Drawing & CAD-I	MW 223 Theory of Welding	MW 343 Metallography & Heat Treatment
		MW 102 Theory of Welding & Forging	MW 212 Machine & Tools	MW 322 Advance Welding

		MW 142 Ferrous Metallurgy	MW 272 Pipe Layout	
		MW 131 Theory of Sheet Metal		
27.	<b>MECHANICAL TECHNOLOGY (WITH SPECIALIZATION IN CONSTRUCTION MACHINERY TECHNOLOGY) (12)</b>	Math 113 Applied Mathematics-I	Math 212 Applied Mathematics-II	CMT 315 Transmission of Construction Machinery
		AD 123 Internal Combustion Engines	AD 243 Problems in IC Engines-II	CMT 323 Steering & Brake System of Construction Machinery
		MT 164 Workshop Practice-I	CMT 213 Fuel System	CMT 333 Final Drive, Undercarriage and power Line
		AD 113 Automotive Electrics and Electronics	CMT 224 Operation of Construction Machinery	CMT 353 Hydraulic Excavator
28.	<b>MECHANICAL TECHNOLOGY WITH SPECIALIZATION IN CAST METALS &amp; FOUNDRY TECHNOLOGY (13)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	FP 312 (Rev.) Foundry Technology -III
		MT 112 (Rev.) Engineering Drawing-I	MTC212 Engineering Drawing -II & CAD	FP 322 Tools & Equipment -III
		FP 112 (Rev.) Foundry Technology -I	FP 212 (Rev.) Foundry Technology - II	FP 342 (Rev.) Calculations
		FP 132 (Rev.) Metallurgy -I	FP 242 Pattern Making -II	FP 362 Strength of Materials
		FP 141 (Rev.) Pattern Making -I		
29.	<b>MECHANICAL TECHNOLOGY WITH</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	MECH 343 Machine Design

	<b>SPECIALIZATION IN DIES &amp; MOULD TECHNOLOGY (13)</b>	WT 156 (Rev.) Workshop Technology -I	ELECT 202 Applied Electricity & Electronics	MECH 362 MATERIALS TESTING & HEAT TREATMENT
		MT 141(Rev.) Health Safety & Environment	WT 227 Workshop Technology -II	TD 352 CAD -II / CAM
		TD 153 (Rev.) Technical Drawing	TD 253 (Rev.) Technical Drawing & CAD-I	DM 312 Tool Technology-I
				DM 322 Tool Technology -II
				<b>4<sup>th</sup> Year</b>
				DM 414 Special Purpose Machine-II
				DM 425 Tool Design and Making
				DM 455 Workshop Technology DM-2
30.	<b>MECHANICAL TECHNOLOGY WITH SPECIALIZATION IN HEAT VENTILATION AIR CONDITIONING &amp; REFRIGERATION TECHNOLOGY (2014)</b>	Math 113 Applied Mathematics -I	Math 223 Applied Mathematics-II	HVAC 315 Airconditioning System Design
		PHY 122 Applied Physics	HVAC 233 Engineering Architectural & Computer Aided Drawing	HVAC 322 Water & Air Distribution
		HVAC 113 Principles of Refrigeration	HVAC 243 Advance Refrigeration	HVAC 353 Heat Transfer & Refrigeration Calculations
		HVAC 121 Safety in HVAC & R Systems	HVAC 253 HVACR & Workshop Practice -II	

31.	<b>MECHANICAL TECHNOLOGY WITH SPECIALIZATION IN MINING (12)</b>	Math 112 Mathematics -I	Math 242 Math-II	ELTM 312 Industrial Management & Human Relations
		ELTM 112 Elements of Mining	ELTM 212 Applied Mechanics	ELTM 313 Rescue and Safety
		ELTM 122 Geology -I	MTM 212 Machine Drawing -I	MTM 312 Hydraulics
		ELTM 133 Elementary Drawing	MTM 222 Mine Machines -I	ETM 242 Mining Law
		ELTM 143 Elements of Machines	ELTM 222 Mining-I	MTM 343 Machine Design
32.	<b>MECHANICAL TECHNOLOGY WITH SPECIALIZATION IN PRECISION MECHANICAL &amp; INSTRUMENT TECHNOLOGY</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	MECH 343 Machine Design & Analysis
		WT 156 (Rev.) Workshop Technology -I	ELECT 202 Applied Electricity & Electronics	MECH 362 Materials Testing & Heat Treatment
		MT 141(Rev.) Health Safety & Environment	WT 227 Workshop Technology -II	TD 352 CAD -II / CAM
		TD 153 (Rev.) Technical Drawing	TD 253 (Rev.) Technical Drawing & CAD -I	WT 356 Workshop Technology -III
		<b>SOS 2019</b>	<b>SOS 2019</b>	<b>SOS 2015</b>
33.	<b>MECHATRONICS TECHNOLOGY (2015) (2019)</b>	Mech 163 Basic Engineering Drawing & CAD-I	MTR 233 Motors & Generators	MTR 343 Industrial Robotic
		Comp 113 Introduction to Computer Studies & Programming	MTR 253 Instrumentation & Measurement	MTR 333 Computer Integrated Manufacturing
		MTR 121 Introduction to Mechatronics & Industrial Automation	MTR 272 Digital Logic Design	MTR 362 Manufacturing Technology & Practices

		MTR 132 Electrical Essentials & Networks	MTR 202 Engineering Materials	MTR 352 Emerging Mechatronics & Automation Technologies
		Math 123 Applied Mathematics-I	Math 212 Applied Mathematics-II	MTR 312 Hydraulic Pneumatics
34.	<b>MINING TECHNOLOGY (14)</b>	Math 113 Applied Mathematics -I	Math 212 Applied Mathematics-II	MIN 313 Coal Mining
		MIN 132 Introduction to Mining	MIN 213 Mine Ventilation	MIN 333 Underground Mining
		MT 133 Elementary Drawing	MIN 253 Surveying -I	MIN 353 Surface Mining & Environmental Control
		COMP 132 Computer -I	MIN 273 Mine Power, Drainage & Material Handling	MIN 372 Rescue & Safety
				MIN 302 Explosives & Blasting
35.	<b>PETRO-CHEMICAL TECHNOLOGY (2015)</b>	Math 113 Applied Mathematics -I	Math 223 Applied Mathematics-II	PCT 304 Petroleum Refining & Gas Processing
		CH 133 Applied Chemistry	PCT 223 Fuels & Combustion	PCT 313 Instrumentation & Advanced Control
		PCT 103 Basic Engineering Drawing & AutoCAD	PCT 233 Instrumental Methods of Analysis	PCT 322 Occupational Health, Safety & Environment
		PCT 113 Fundamental of Petroleum Technology	PCT 243 Petro Chemical Industries-I	PCT 342 Unit Operations
				PCT 352 Chemical Process Industries

36.	<b>PETROLEUM TECHNOLOGY (16)</b>	Math 113 Applied Mathematics -I	Math 223 Applied Mathematics	PET 303 Petroleum Refining
		PHY 123 APPLIED PHYSICS	PET 213 Petroleum Geology	PET 373 Gas Technology
		CH133 Applied Chemistry	COMP 213 Computer Application Software	PET 343 PETROLEUM PRODUCTION TECHNOLOGY
		MT 142 Basic Engineering Drawing	PET 283 Drilling Technology	PET 383 Fuels and Combustion
		PET 123 Workshop Practice-I		
37.	<b>PRINTING AND GRAPHIC ARTS TECHNOLOGY (15)</b>	Math 113 Applied Mathematics -I	Math 223 Applied Mathematics-II	PGA 303 Gravure Printing
		PGA 112 SCREEN PRINTING	PGA 202 Offset Printing -I	PGA 314 Offset Printing -II
		PGA 124 GRAPHIC DESIGN -I	PGA 211 Quality Assurance & Safety Measures	PGA 322 Flexo Graphic Printing
		COMP 142 Computer Applications	PGA 233 Graphic Design -II	PGA 334 Print Finishing & Book Binding
			PGA 242 Conventional & Digital Plate Making	PGA 342 Digital Design
38.	<b>TELECOMMUNICATION TECHNOLOGY (12)</b>	Math 123 Applied Mathematics -I	Math 233 Applied Mathematics	TC 333 TELECOM NETWORKS
		TC 133 Telecommunication Fundamentals	TC 223 Digital Circuits & Microprocessor	TC 343 Mobile Telecommunication



		PHY 132 Applied Physics	TC 243 Switching System	TC 364 Construction Practice & Project
			TC 263 Power Plant	TC 373 Maintenance & Quality of Service
39.	<b>TEXTILE DYEING AND PRINTING TECHNOLOGY (12)</b>	CH 112 Applied Chemistry	Math 223 Applied Mathematics-II	TD 313 Textile Testing & Quality Assurance
		TD 114 Textile Fundamentals	TD 235 Coloration -I	TD 335 Coloration -II
		COMP 122 Computer Applications	TD 223 Fibre Science	TD 345 Textile Printing & Finishing
		Math 113 Applied Mathematics -I	TD 254 Fabric Formation	TD 351 Color Science
40.	<b>TEXTILE SPINING TECHNOLOGY (2014) (2020)</b>	<b>SOS 2020</b>	<b>SOS 2014</b>	<b>SOS2014</b>
		Math 113 Applied Mathematics -I	Math 223 Applied Mathematics	TT (Rev.) 314 Dyeing & Finishing
		Mech 173 Engineering Drawing & Graphic	TT 223 (REV) Fabric Design & Structure	TT 323 (REV) Textile Testing & Quality Control
		TT 111 Textile Raw Materials	TT 234 (REV) Spinning & Weaving Mechanism	TT 332 (REV) Mill Engineering & Services
		TT 103 Fundamentals of Textile Technology	TT 243 (REV) Textile Calculation	TS 313 (REV) SPECIAL PROJECT ON SPINING
		COMP 152 computer applications	TT 261 Technical Textile	TS 323 (REV) Spinning Mechanism

		<b>SOS 2020</b>	<b>SOS 2014</b>	<b>SOS2014</b>
41.	<b>TEXTILE WEAVING TECHNOLOGY (2014) (2020)</b>	Math 113 Applied Mathematics -I	Math 223 Applied Mathematics-II	TT 314 (Rev) Dyeing & Finishing
		Mech 173 Engineering Drawing & Graphics	TT223 (REV) Fabric Design & Structure	TT 323 (REV) Textile Testing & Quality Control
		TT 111 Textile Raw Materials	TT 234(REV) Spinning Weaving Mechanism	TT 332 (REV) Mill Engineering & Service
		TT 103 Fundamentals of Textile Technology	TT 243 (REV) Textile Calculation	TW 313 (REV) Special Project on Weaving
		COMP 152 Computer Applications	TT 261 Technical Textile	TW 323 (REV) Weaving Mechanism
42.	<b>DRESS DESIGNING &amp; MAKING (2014)</b>	DDM 112 Embellishment Techniques	DDM 212 Hand & Machine Embroidery-I	DDM 353 Advance Textile Designing & Printing
		DDM 132 Pattern Making - I	DDM 222 Pattern Making-II	DDM 373 Fashion Designing
		DDM 152 Sewing Technique - I	DDM 232 Sewing of Home Textile Products	DDM 393 Readymade Garments
		DDM 163 Computer Aided Design-I	DDM 262 Computer Aided Design-II	
		DDM 142 Drawing & Design-I	DDM 242 Drawing & Design-II	

**PUNJAB BOARD OF TECHNICAL EDUCATION, LAHORE**

**LIST OF SUBJECTS TO BE EXAMINED FOR FRESH CANDIDATES' 1st ANNUAL EXAMINATION 2021**

Sr.	Course	Subject Chosen	
		1st year	2nd year
1	<b>D.Com (Accounts)</b>	Business I.T-I	Business I.T-II
		Principle of Banking	Communication Skills
		Financial Accounting-I	Financial Accounting-II
		Business Mathematics & Statistics	Applied Accounting Manual / Computer Based Accounting
2	<b>D.Com (OSP)</b>	Business I.T-I / English Typing / Urdu Typing	Business I.T-II / Business I.T-I
		Financial Accounting-I	Communication Skills
		English Short Hand-I / Urdu Short Hand-I	English Short Hand-II (Theory & Speed) / Urdu Short Hand-II (Theory & Speed)
			Computer Based Correspondance, Office Practice & Procedure
3	<b>D.Com Banking</b>	Business I.T-I	Business I.T-II
		Financial Accounting-I	Communication Skills
		Principle of Banking	Financial Accounting-II
		Currency & Finance	E-Banking
4	<b>D.Com (Insurance)</b>	Business I.T-I	Business I.T-II
		Financial Accounting-I	Communication Skills
		Risk Insurance	Business Environment
		Insurance Practice-I	Insurance Practice-II

<b>5</b>	<b>D.Com (Salesmanship)</b>	Business I.T-I	Business I.T-II
		Financial Accounting-I	Communication Skills
		Principle of Salesmanship	Entrepreneureship
		Principle of Marketing	Advertising
<b>6</b>	<b>DBA</b>	Computer Application	Economics
		Financial Accounting-I	Computer Application to Business-II & Project
		Mathematics-I / Statistics	Financial Accounting-II / Fundamentals of Marketing

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**LIST OF SUBJECTS TO BE EXAMINED FOR FRESH CANDIDATES' 1st ANNUAL EXAMINATION 2021**

Sr.	Course	Subject Chosen	
		1st year	2nd year
1	DHO	The Lodging & Food Service Industry-I	The Lodging & Food Service Industry-II
		Food & Beverage Division-I	Food & Beverage Division-II
		Room Division-I	Room Division-II
		Personality Development	
2	DCA	Food Safety Managing with the HACCP System-I	Food Safety Managing with the HACCP System-II
		The Professional Chef-I	The Professional Chef-II
		Computer Fundamentals	

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Sr.	Course	Subject Chosen	
		1st year	2nd year
1	<b>Matric Vocational</b>	General Mathematics-I	General Mathematics-II
		Drafting & Sewing-I	Drafting & Sewing-II
		Hand Embroidery	Machine Embroidery
		Elements & Principles of Drawing & Design	Computer Fundation
2	<b>Matric Tech.</b>	Mathematics-I	Mathematics-II
		Physics-I	Physics-II
		Chemistry-I	Chemistry-II
		<b>Optional Subjects:</b> Auto Mechanic-I / Tailoring-I / Welding-I / Electrical Appliances-I / Computer Science-I / Refrigeration and Air Conditioning-I / Electronics-I	<b>Optional Subjects:</b> Auto Mechanic-II / Tailoring-II / Welding-II / Electrical Appliances-II / Computer Science-II / Refrigeration and Air Conditioning-II / Electronics-II

**PUNJAB BOARD OF TECHNICAL EDUCATION, LAHORE**

**LIST OF SUBJECTS TO BE EXAMINED FOR FRESH CANDIDATES' 1st ANNUAL EXAMINATION 2021**

Sr.	Course	Subject Chosen	
		1st year	2nd year
1	DSE	Physical Education	Physical Education-II
		Fine Arts	Fine Arts-II
		Dress Designing and Dress Making	Dress Designing and Dress Making-II
		Computer Science	Computer Science-II
		English Type	English Type-II
		Applied Electricity	Applied Electricity-II
		Basic Electronics	Basic Electronics-II
		<b>Note: The examination shall be conducted from any three elective subjects already chosen by the candidates out of the above mentioned elective subjects.</b>	