Level of higher education Bachelor			
Specialty 141 Power engineering, electrical engineering and electromechanics			
Educational program <u>Electromechanics</u>			
Academic discipline <u>Fundamentals of Power E</u>	Electric Engineering		
Semester <u>2</u>			
TEST PAPER	No. 1		
1. History of electrical engineering. The basis of el	ectrical equipment of power plants		
2. The main types of permanent magnets. Areas of	use of permanent magnets		
3. Advantages and disadvantages of obtaining elec	tricity from wind turbines.		
Approved at the meeting of the department «Electric Machines».  Protocol № 1 of 25 August 2022.			
Head of Department			
«Electric machines»	Vladimir MILYKH (signature)		
Examiner	Valentina SHEVCHENKO  (signature)		
National Technical University «Khalle Level of higher education Bachelor  Specialty 141 Power engineering, electrical Educational program Electromechanics  Academic discipline Fundamentals of Power Education Semester 2	l engineering and electromechanics		
TEST PAPER No. 2			
1. Modes of electric machines operation. The princ	riple of electric machines reversibility.		
2. Advantages and disadvantages of obtaining electricity from mini-hydropower plants.			
3. The impact of wind turbines on the environme wind turbines.	nt. Means to combat bio-resonance from		
Approved at the meeting of the department «Electric Ma Protocol № 1 of 25 August 2022.	achines».		
Head of Department «Electric machines»	Vladimir MILYKH		
<b>Examiner</b> (sign	Valentina SHEVCHENKO		

Level of higher education	Bachelor			
Specialty 141 Po				
Educational program	Electromechanic	<u>S</u>		
Academic discipline	Fundamentals of Power l	Electric Engineerin	g	
Semester	2			
	TEST PAPER	R No. 3		
1. Electricity generation at	HPPs and PSPs.			
2. Electric generators for n				
3. Problems and means of			ants.	
Approved at the meeting of the	•	Iachines».		
Protocol № 1 of 25 August 20				
	ad of Department ectric machines»		Vladimir MILYKH	
(LI		(signature)	_ viddiiiii iviii2 i ixii	
Exa	aminer		tina SHEVCHENKO	
		(signature)		
National Technical University «Kharkiv Polytechnic Institute»  Level of higher education Bachelor  Specialty 141 Power engineering, electrical engineering and electromechanics  Educational program Electromechanics				
Academic discipline Fundamentals of Power Electric Engineering				
Semester 2 TEST PAPER No. 4				
<ol> <li>Synchronous generators</li> <li>Use of permanent magn</li> <li>Use of high-temperature</li> </ol>	ets for low power electr	ric generators	es	
Approved at the meeting of the Protocol № 1 of 25 August 20	•	lachines».		
Head of Department	«Electric machines»		Vladimir MILYKH	
Evomin	Δr	(signature)  Valentina SH	EVCHENKO	
LAAIIIII	er(signature)	v aleitiiia Sfi	L V CHENIXO	

Level of higher education	Bachelor			
Specialty <u>141 Po</u>	ower engineering, elec	trical engineering and electromechanics		
Educational program <u>Electromechanics</u>				
Academic discipline	Academic discipline Fundamentals of Power Electric Engineering			
Semester	2			
TEST PAPER No. 5				
1. Advantages and disadva	antages of generators	with permanent magnets		
2. Completion of the nace	lle of powerful wind	turbines		
3. The impact of wind turb	oines on the environr	nent.		
Approved at the meeting of t Protocol № 1 of 25 August 2	-	c Machines».		
	ectric machines»	Vladimir MILYKH		
Exa	aminer	Valentina SHEVCHENKO		
Level of higher education	Bachelor ower engineering, elec Electromecha	Kharkiv Polytechnic Institute»  trical engineering and electromechanics nics Per Electric Engineering		
TEST PAPER No. 6				
<ol> <li>Technology of obtaining</li> <li>Features of operation of system.</li> <li>Generators for small hy</li> </ol>	wind power plants for	ar power plants. or individual consumers and the general power		
Approved at the meeting of t Protocol № 1 of 25 August 2	022.	c Machines».		
	ad of Department lectric machines»	Vladimir MILYKH		
Ex	aminer	Valentina SHEVCHENKO		

Level of higher education I	Bachelor		
Specialty 141 Power engineering, electrical engineering and electromechanics			
Educational program	Electromechani	cs	
Academic discipline <u>I</u>	Fundamentals of Power	· Electric Engineering	
Semester <u>7</u>	7		
TEST PAPER No. 7			
1. Types of electromagnetic	excitation systems f	or synchronous generators.	
• • • • • • • • • • • • • • • • • • • •	•	e of generator for wind turbines.	
3. Environmental problems	•	_	
<b>1</b>	<i>8</i>		
Approved at the meeting of the	e department «Electric	Machines».	
Protocol № 1 of 25 August 202	22.		
**	1 675		
	d of Department ctric machines»	Vladimir MILYKH	
WLICE		(signature)	
E	<b>!</b>	Volentine CHEVCHENICO	
Exar	niner	Valentina SHEVCHENKO	
National Technical University «Kharkiv Polytechnic Institute»			
Level of higher education I	Bachelor		
Specialty <u>141 Pov</u>	ver engineering, electri	cal engineering and electromechanics	
Educational program	Electromechani	cs	
Academic discipline <u>I</u>	Fundamentals of Power	Electric Engineering	
Semester 2	2		
TEST PAPER No. 8			
1. Types of permanent ma	gnets used for elec	tric machines.	
<ol> <li>Types of permanent magnets used for electric machines.</li> <li>Means of ensuring environmental safety of electricity generation.</li> </ol>			
3. Advantages and features of offshore wind turbines.			
5. Auvantages and reature	s of offshore will	turomes.	
Approved at the meeting of the Protocol № 1 of 25 August 202	-	Machines».	
	d of Department		
«Elec	ctric machines»	Vladimir MILYKH	
(signature)			
Exar	niner	Valentina SHEVCHENKO	

Level of higher education	n <u>Bachelor</u>	
Specialty <u>141 P</u>	ower engineering, ele	ctrical engineering and electromechanics
Educational program	Electromech	
Academic discipline	Fundamentals of Pov	wer Electric Engineering
Semester	2	
	TEST PA	PER No. 9
1. Obtaining electricity at	thermal power plan	CS.
2. Promising directions of Ukraine.	development of ele	ectric power from renewable energy sources in
3. Use of high-temperatur	e superconductivity	for wind power plants
Approved at the meeting of the Protocol № 1 of 25 August 2	-	ic Machines».
	ead of Department lectric machines»	Vladimir MILYKH
Ex	aminer	Valentina SHEVCHENKO
National Technical University «Kharkiv Polytechnic Institute»  Level of higher education Bachelor  Specialty  141 Power engineering, electrical engineering and electromechanics		
Educational program  Academic discipline	Electromech Fundamentals of Pov	wer Electric Engineering
Semester	_	
	TEST PAI	PER No. 10
in Ukraine 2. Development of the wo	orld's modern electric	nd prospects of using mini-hydropower plants eity from renewable energy sources.  Completion of the gondola of powerful wind
Approved at the meeting of the Protocol № 1 of 25 August 2	•	ic Machines».
	ead of Department lectric machines»	Vladimir MILYKH
Ex	aminer	Valentina SHEVCHENKO