No. of Printed Pages : 3

MASTER OF SCIENCE (RENEWABLE ENERGY AND ENVIRONMENT) (MSCRWEE)

Term-End Examination June, 2023

MRW-004: ENERGY MANAGEMENT

Time: 3 Hours Maximum Marks: 70

Note: (i) Attempt any seven questions.

- (ii) All questions carry equal marks.
- (iii) Use of scientific calculator is permitted.
- (iv) Assume suitable data, if missing any.
- 1. (a) What is Energy Management? Describe the major strategies for energy management.
 - (b) Discuss any *five* housekeeping measures to conserve energy. 5

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_			_		of	the		_	
(a)	Pow	er fa	ctor						
(b)	Hyg	grome	eter						
(c)	Was	ste he	eat re	covery					
(d)	Manometer								
(e)	Electrical resistance thermometer								
Dis	tingu	iish b	etwe	en any i	two	of th	e follo	wing	g :
								5	5+5
(a)	Isot	herm	al an	d Adial	atic	proc	ess		
(b)	Exe	rgy o	f clos	ed and	oper	ı syst	tem		
(c)	Star	c coni	nectio	on and I	Delta	a con	nectio	n	
									DC 10
_				statem	ents	of s	second	law	of
(a)	Disc	cuss t	he di	fferent	type	es of	wiring	5.	5
(b)			the	presen	t so	enar	rio of	pov	ver 5
(a)				O					rgy 5
(b)	Exp	lain t	the u	tility of	San	key o	diagra	m.	5
	ene (a) (b) (c) (d) (e) Disc (a) (b) (c) Exp then (a) (b)	energy n (a) Pow (b) Hyg (c) Was (d) Man (e) Elect Distingua (a) Isot (b) Exe (c) Stan Discuss machine Explain thermod (a) Disc syst (a) Disc cons	energy manage (a) Power factors (b) Hygrome (c) Waste he (d) Manome (e) Electrical Distinguish be (a) Isotherm (b) Exergy of (c) Star control Discuss the machine. Explain both thermodynam (a) Discuss to be systems. (b) Discuss conservations (a) Discuss conservations (b) Discuss conservations (c) Star control (d) Discuss to be systems.	energy manageme (a) Power factor (b) Hygrometer (c) Waste heat re (d) Manometer (e) Electrical residual positions and the consensation in the consensation in the conservation in the	Explain the significance energy management: (a) Power factor (b) Hygrometer (c) Waste heat recovery (d) Manometer (e) Electrical resistance of the distinguish between any of the distinguish between any of the distinguish between and I distinguish	Explain the significance of energy management: (a) Power factor (b) Hygrometer (c) Waste heat recovery (d) Manometer (e) Electrical resistance there Distinguish between any two (a) Isothermal and Adiabatic (b) Exergy of closed and oper (c) Star connection and Delta Discuss the constructional machine. Explain both the statements thermodynamics. (a) Discuss the different type (b) Discuss the present so systems. (a) Discuss the guideling conservation in Vanaspate	Explain the significance of the energy management: (a) Power factor (b) Hygrometer (c) Waste heat recovery (d) Manometer (e) Electrical resistance thermomed Distinguish between any two of the statement of the statement of the statement of the statements of the statement of	Explain the significance of the followenergy management: (a) Power factor (b) Hygrometer (c) Waste heat recovery (d) Manometer (e) Electrical resistance thermometer Distinguish between any two of the followed and open system (a) Isothermal and Adiabatic process (b) Exergy of closed and open system (c) Star connection and Delta connection Discuss the constructional features machine. Explain both the statements of second thermodynamics. (a) Discuss the different types of wiring (b) Discuss the present scenario of systems. (a) Discuss the guidelines for conservation in Vanaspati Industries	Explain the significance of the following energy management: 5×2= (a) Power factor (b) Hygrometer (c) Waste heat recovery (d) Manometer (e) Electrical resistance thermometer Distinguish between any two of the following follo

- 8. Discuss the energy audit process of a steel industry in detail.
- 9. Write short notes on any *two* of the following:

5+5

- (a) Evaporative cooling
- (b) Thermal equilibrium
- (c) Transformer
- (d) Energy efficient motors