

C.U.SHAH UNIVERSITY

Summer Examination-2018

Subject Name: Energy Management & Audit

Subject Code: 4TE08EMA1

Branch: B.Tech (EEE, EE)

Semester: 8

Date: 26/04/2018

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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- Q:1** **Attempt the following questions:** **(14)**
- 1) Which is the Unit Of Frequency ? **1**
a) Ampere b) Volt c) Hertz d) Watt
 - 2) What is the unit of flux density? **1**
a) amp*m b) weber/meter² c) weber/meter d) amp*m²
 - 3) Which is the unit of Resistivity? **1**
a) Ohm/m b) Ohm*m² c) Ohm/m² d) Ohm*m
 - 4) Preliminary energy audit needsof days to complete the process. **1**
a) 2 to 10 b) 9 to 10 c) 10 to 12 d) None of this
 - 5) Pyrometer is used to measuretemperature. **1**
a) Low b) medium c) High d) None of above
 - 6) 1 HP =.....KW. **1**
a) 746 b) 74.6 c) 0.746 d) 7.46
 - 7) CT is made of conductor and turns. **1**
a) thin,less b) thin,more c) thick,less d) thick,more
 - 8) Economiser is example of energy conservation equipment. **1**
a) True b) False
 - 9) By increasing number of gauge cross section area of conductor will? **1**
a) Increase b) Decrease c) No change d) None of above
 - 10) In recording type instruments record is recorded on **1**
a) Graph paper b) computer c) blank paper d) None of above
 - 11) Which quantity is not electrical quantity? **1**
a) Voltage b) Current c) Power d) Length



- 12) Which meter is used to measure the flowing current with out breaking the conductor? 1
 a) Ammeter b) Voltmeter c) Wattmeter d) Clipon meter
- 13) Ttransducer converts non electrical quantity in which quantity? 1
 a) Chemical b) Mechanical c) Electrical d) Atomic
- 14) In Wattmeter there arecoils. 1
 a) One b) Two c) Three d) Four

Attempt any four questions from Q-2 to Q-8

Q:2 Attempt all questions (14)

- (a) Define the term Energy audit . Compare preliminary and detailed energy audit. 07
 (b) Explain about Non conventional enrgy sources briefly with their use. 07

Q:3 Attempt all questions (14)

- (a) Explain about 10 different meter used in audit process with their specific use. 07
 (b) Explain briefly about Renewable & Non Renewable energy sources. 07

Q:4 Attempt all questions (14)

- (a) How the Energy sector affects environment? Explain briefly. 07
 (b) What you mean by power factor correction? How it affects electric bill? 07

Q:5 Attempt all questions (14)

- (a) What you mean by energy efficient motor? explain briefly. 07
 (b) Explain the term energy conservation with examples...1: Air preheater 2: Economiser 07

Q:6 Attempt all questions (14)

- (a) Explain briefly about soft starter. 07
 (b) How the maximum demand is controlled by maximum demand controller? 07

Q:7 Attempt all questions (14)

- (a) Which losses becomes in transformer? Explain with formula. 07
 (b) Compare between soft starter and variable frequency drive. 07



Q:8

Attempt all questions

(14)

- (a) What are the benefits of improved power factor? Explain briefly. **07**
- (b) Explain the roles and responsibilities of energy manager in organization. **07**

