<b>Enrollment No:</b> _	Exam Seat No:

## C.U.SHAH UNIVERSITY Summer Examination-2017

**Subject Name: Plant Engineering and Maintenance** 

Subject Code: 4TE08PEM1 Branch: B.Tech (Mechanical)

Semester: 8 Date: 15/04/2017 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.

Q-1		Attempt the following questions:	(14)
	a)	What do you mean by a strategy?	01
	<b>b</b> )	What is plant engineering?	01
	c)	Define Autonomous maintenance	01
	d)	Name any one computerized technique for layout planning.	01
	e)	Name any one method for ventilation.	01
	f)	What is Hydronic heating system?	01
	g)	What KAIZEN stand for?	01
	h)	span length for lattice girder in roof construction is used.	01
	i)	What is standard composition of a standard air?	01
	j)	A is a device that regulates the set point temperature in a building.	01
	k)	Military organization is known as	01
	1)	Which are three elements in fire triangle?	01
	m	) What is corrective work?	01
	n)	What is "PASS" system in fire-fighting?	01
Attemp	t any	four questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	a)	State the duties of plant engineer	03
	d)	State the objective of preventive maintenance	03
	<b>b</b> )	List the steps involved in man power planning?	04
	c)	How does sanitation affect the environment?	04
Q-3		Attempt all questions	(14)
	a)	State the characteristics and strength of product organization	05

	<b>b</b> )	State the guidelines for equipment designers to improve safety in maintenance	05
	c)	State the various heating sources for industrial HVAC	04
Q-4			(14)
	a)	What points should be kept in mind to build an effective organisation?	05
	<b>b</b> )	Explain Failure rate Vs Time with neat sketch	05
	c)	State the demerits of Life cycle costing	04
Q-5			(14)
	<b>a</b> )	Explain sub-division of Pareto chart with appropriate example	06
	<b>b</b> )	List the important principles of plant layout	04
	c)	State the thumb rule for REL chart preparation	04
Q-6			(14)
	<b>a</b> )	Describe the importance of each pillar in TPM organizing structure in detail	08
	<b>b</b> )	State the legal provisions for worker safety and health in industries	06
Q-7			(14)
	<b>a</b> )	Explain steps approach to Life Cycle Costing Implementation	08
	<b>b</b> )	State the differences between online and offline CM System	03
	c)	Explain the quantitative decision making maintenance system	03
Q-8			(14)
	a)	State the prevention against chemical hazards	05
	<b>b</b> )	State the technique used for detecting the condition & performance of equipment	05
	c)	What is meant by the 80/20 rule?	04

