Enrollment No:	Exam Seat No:
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## **C.U.SHAH UNIVERSITY**

## **Summer Examination-2018**

**Subject Name: Automotive Maintenance and Safety** 

Subject Code: 4TE05AMS1 Branch: B.Tech (Automobile)

Semester: 5 Date: 27/03/2017 Time: 10:30 To 01:30 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)	Which of the following symptoms is caused as a result of brake disc run out?  A. Ineffectiveness of the brakes B. Judder during braking C. Localized wearing of the brake pads	1
<b>b</b> )	D. Rapid wearing of the brake pad The operation of removing trapped air from the hydraulic braking system is known as A. trapping B. tapping C. bleeding	1
<b>c</b> )	D. Cleaning Clashing of gears when shifting into high could result from A. Engine misalignment B. Drive key sheared	1
d)	C. A defective Synchronizer D. None of the above The imbalance wheel during operation A. makes large noise when its heavy point hits the road surface	1
	<ul><li>B. deflects in the vehicles longitudinal direction</li><li>C. bounce vertically or deflects from side to side( as seen from front or rear)</li><li>D. creates standing waves</li></ul>	1
<b>e</b> )	Odometer is an instruments used for measurement of A. power B. fuel consumption C. engine RPM	1
f)	D. distance A laminated glass upon cracking A. bursts into sharp edged fragment B. bust into granular pieces C. sandwiched layer traps fragment	1
g)	D. brakes into the form of crystals The instrument used to check specific gravity of acid in a battery is A. hydrometer B. hygrometer	1



		C. anemometer	
		D. millimeter	
	h)	The purpose of turning radius gauges is to measure the	1
		A. contact area of the tires	
		B. free play of the steering wheel	
		C. turning radius of the left and right wheel	
		D. difference in the toe angle of the left and right wheel	
	i)	Transmission noise in neutral could result from	1
		A. Worn gears	
		B. Loose propeller shaft	
		C. Misadjusted gear linkage	
		D. None of the above	
	<b>j</b> )	Which among the following constitutes the major load for an automobile battery?	1
	J/	A. Brake light	
		B. Self starter	
		C. Parking lights	
		D. Spark plugs	
	k)	The automobile transmission is removed from the car by taking it out	1
	11)	A. From under car	1
		B. Through driving compartment	
		C. Through engine compartment	
		D. Can't Remove	
	1)	Parts of the clutch that should not be cleaned in solvent include the	1
	1)	A. Friction disc and throw out bearing	1
		B. Friction disc cover	
		C. Throw out bearing and springs	
	)	D. Release levers and springs  The condition that covers were unleading in a breaks covers is	1
	m)	The condition that causes vapour locking in a brake system is	1
		A.overheating of the fluid due to frequent brake application	
		B. overcooling of the brakes during high speed driving	
		C.keeping the vehicle without use for an extended period	
		D.an excessively high engine speed on a downhill road	
	n)	The Damper fluid leakage typically occur from	1
		A. Upper damper mounting	
		B. Bottom damper	
		C. Clearance between inner and outer tubes of damper	
		D. Coil Spring mounting	
Attemp	ot any f	four questions from Q-2 to Q-8	
0.2		Attempt all quartiens	(1.4
Q-2	<b>a)</b>	Attempt all questions  Explain collapsible steering and tiltable steering wheel with neat sketch.	(14 7
	a)		7
	<b>b</b> )	With neat sketch explain about wheel Balancing.	/
Q-3		Attempt all questions	(14
Q-3	9)	With neat sketch Discuss various bumper design for safety in detail.	7
	a)	How to diagnose oil leak in engine? Explain the prevention techniques for oil leak.	7
	<b>b</b> )	How to diagnose on leak in engine? Explain the prevention techniques for on leak.	,
Q-4		Attempt all questions	(14
<b>Y</b> - <b>T</b>	a)	Explain deformation behavior of vehicle body in detail.	(14
	a) b)	Explain various leak detection techniques for cooling system in detail.	5 5
	-	Write a short note on interior safety	4
	c)	write a short hote on interior safety	4
Q-5		Attempt all questions	(14
<b>Y</b> -2	a)	Explain the dent repair procedure.	7
	a)	Explain the dent repair procedure.	,



	<b>b</b> )	Explain engine assembly procedure in detail.	7
Q-6		Attempt all questions	(14)
	a)	Explain in detail about different methods for bleeding of brake.	7
	<b>b</b> )	What is Cylinder boring? Explain it in detail with step-by-step procedure for boring cylinder.	7
Q-7		Attempt all questions	(14)
	a)	With neat sketch describe toe adjustment.	7
	<b>b</b> )	Discuss safety precautions in maintenance.	7
Q-8		Attempt all questions	(14)
-	a)	Explain engine removal and disassembly procedure in detail.	7
	b)	Draw and explain vehicle maintenance check sheet used in service stations	7

