

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER –VI • EXAMINATION – WINTER 2015

Subject Code: 3360202**Date:** 14 /12 /2015**Subject Name:** Auto transmission mechanism diagnosis & testing**Time:** 02:30 PM TO 05:00 PM**Total Marks:** 70**Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks. s
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

Q.1 Answer any seven out of ten. દર્શમાંથી કોઇપણ સાતના જવાબ આપો. **14**

1. Draw rotation of tyre pattern for four wheels and six wheels.
૧. Caar iVHI Ane 0 iVHI ma3e 3ayr ro3exn pe3nR doro.
2. Give causes for brake pedal goes to floor in hydraulic brake system.
૨. Ha{D<oilk bee/K isS3mma bee/K peDI flor su2I jvana kar`o Ane]payo j`avo
3. Explain causes for failure of automatic transmission.
૩. Ao3omei3k 3/aNsimxn fe[l 4vana kar`o j`avo
4. Can we use engine oil in gearbox? Why?
૪. xu>> Aap`e AeNjIn Ao[l igAr boKsma> vaprl xklAe? xa ma3e?
5. Give causes and remedies of “Power not transmitted by gear box”.
૫. igArboKs @vara pavar 3/aNsim3 n 4vana kar`o Ane]payo j`avo.
6. Explain causes and remedies for hard steering.
૬. HaDR S3lrl>g ma3ena kar`o Ane]payo j`avo.
7. Enlist different types of problems that arise in suspension system.
૭. sSpeNxn isS3mma>]d\wvtl iviv2 qamIAo j`avo.
8. Explain causes for following chassis frame problems
(1) Side sway (2) buckle
૮. nlce Aapel cesls f/emnl smSya ma3ena kar`o j`avo.
ÜÉÝ sa[D Svey ÜÉÝ mrDa[jvu>
9. Explain servicing of constant velocity joint.
૯. koNS3N3 velosl3l jo[N3nu> svlRsl>g smjavo.
10. What are the causes and remedies for front wheel wobble at all speed?
૧૦. drek gtIAe Aag5na Vhll vobl 4vana kar`o Ane]payo j`avo.

Q.2 (a) Write short notes on clutch over hauling. **03**
પ્રશ્ન. ૨ (અ) 3U>kno>2 lqo. Klc AovrHoll>g **03**

OR

- (a) Mention various defects occur in a clutch unit & explain any one with causes and remedies. **03**
- (અ) ક્લચ યુનિટમા>]d\wvtl iviv2 qamIAo j`avo Ane ko[p` Aek kar` Ane]payo **03**

	sa4e sm=vo.	
	(b) Explain causes and remedies for clutch dragging.	03
	(c) Klc De/gI>g 4va ma3ena kar`o Ane]payo j`avo.	03
	OR	
	(b) Write short note on clutch linkage adjustment.	03
	(c) ຊໍ້າລັດ ຕາມ : Klc II>Nkej AeDjS3meN3.	03
	(c) Explain bleeding of clutch hydraulic system.	04
	(g) Klc Ha[D/ollk isS3m BIIDI>g krvanl rlt lqo	08
	OR	
	(c) Explain following terms with reasons & remedies with reference to gear-box. (1) Hard shifting (2) slipping of gear	04
	(g) glyrboKs s>b>2lt nlcenana> kar`o Ane]payo sm=vo. ÜÉÝHaDR xIF3I>g ÜÊÝ glyrnu> SIIP 4vu.	08
	(d) Explain inspection procedure and rectification of clutch components.	04
	(s) Klcna wagonu> [>Spekxn Ane reK3IfIkexn krvanl rlt j`avo.	08
	OR	
	(d) Explain the reasons and remedies for (1) Noisy gear shifting (2) gears are not transmitting full power.	04
	(s) kar`o Ane]payo sm=vo. ÜÊÝ xIF3I>g drMyan glyr Avaj krvo. ÜÊÝ glyrboKs4I purepuro pavr 3/aNsim3 n 4vo	08
Q.3	(a) Explain effect of 'WRONG CASTER' and 'WRONG CAMBER' on steering mechanizing.	03
ຸຸ. 3	(c) qo3a keS3r Ane qo3a keMbrnl S3lyrl>g mlkenlzm pr 4tl Asro j`avo	03
	OR	
	(a) Explain causes and remedies for vehicle wander.	03
	(c) veHIkl veNDr 4va ma3ena kar`o Ane]payo sm=vo.	03
	(b) Explain reasons & remedies for the following: (1) Brake pulling to one side (2) Spongy brake	03
	(c) kar`o Ane]payo sm=vo ÜÊÝ be/klg drMyan Aek baju qe>cay 0e.ÜÊÝ SpoN+ be/k peDI	03
	OR	
	(b) Write causes and remedies for insufficient braking and brake slowly apply in air brake system.	03
	(c) Aer be/k isS3m ma3e be/k purtl lagtl n4I Ane be/k 2lme lage 0e Ae ma3ena> kar`o Ane]payo lqo.	03
	(c) Explain any two troubles and their causes and remedies in rear axle.	04
	(g) rlyr Ae9I AeseMblnl ko[p` be qamIAo kar`o Ane]payo sa4e sm=vo.	08
	OR	
	(c) Give characteristics of brake-fluid. Also state the procedure for bleeding the hydraulic braking system.	04
	(g) be/k Flu[Dna> gu`2moR lqo. Ha[Do/Illk be/k slS3mnu> BIIDI>g krvanl rlt lqo.	08
	(d) Mention various troubles in alloy wheel with its causes and remedies.	04
	(s) Aeloy iVHlnl iviv2 qamIAo kar`o Ane]payo sa4e sm=vo.	08
	OR	
	(d) Write short note on overhauling of transaxle.	04
	(s) 3U>kno>2 lqo : 3a/Nse9Inu> AovrHollg	08

Q.4	(a)	Why balancing of propeller shaft is required? Also explain procedure of servicing of any one type of universal joint.	03
උග්. ෪	(ඔ)	po/peir xaF3nu> beleNsl>g krvatl xa ma3e j½r pDe 0e? ko[p` Aek p/karna yunlvsl jo[N3nu> svlRsl>g sm=vo. OR	03
	(a)	Explain inspection procedure for rear axle assembly.	03
	(ඔ)	rlyr Ae9l AeseMblInu> [NSpekxn krvatl p@2tl sm=vo.	03
	(b)	Explain the steps of overhauling of differential.	04
	(ඔ)	iDfriNxyI AovrHollg ma3ena mu`a lqo.	0෪
		OR	
	(b)	Explain points remember while doing lubrication.	04
	(ඔ)	lubl/kexn drMyan @yanma> levantl babto sm=vo	0෪
	(c)	Explain wheel alignment procedure.	07
	(ඔ)	iVHI AelaymeN3 p@2it sm=vo.	0෭
Q.5	(a)	Write short note on brake performance test.	04
උග්. ෫	(ඔ)	3U>kno>2 lqo: be/k prfomRNs 3eS3.	0෪
	(b)	Write short note on tyre re-trading.	04
	(ඔ)	3U>kno>2 lqo : 3ayr rl3e/Dl>g	0෪
	(c)	Explain inspection procedure of suspension system.	03
	(ඔ)	sSpeNxn slS3mnl [NSpekxn p@2it sm=vo.	03
	(d)	Write short note on servicing of differential.	03
	(ඔ)	3U>kno>6 lqo. iDfriNxyI sivRs.	03
