

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION
DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION
SECOND SEMESTER EXAMINATION 2019/2020 SESSION

COURSE CODE: ITE328

COURSE TITLE: BRAKING, STEERING AND SUSPENSION SYSTEM

TIME: 2HRS

INSTRUCTION: Attempt only (4) Questions

1. a, Enumerate the action of a disc brake when actuated by hydraulic means. Diagram a must please.
b, Enumerate THREE conditions that necessitate the bleeding on hydraulic braking system
c, Explain limitations of riveting lining to the brake shoes; And are these limitations overcome?
2. a, With the aid of a suitable diagram, explain the action of leading and trailing shoe arrangement.
b, Identify Five disadvantages of a drum brakes
c, Enumerate THREE factors that influence the stopping distance of your beautiful car.
3. a, Identify FIVE major factors that influence good steering
b, Identify and explain FIVE angles that define steering geometry.
c, Differentiate between Fifth wheel and Ackerman types of steering.
4. a, Briefly explain the constructional and operational principles of worm and roller type of steering gearbox.
b, Outline FIVE major limitations of Power Assisted Steering.
c, Enumerate the following: steering wheel, steering knuckle and steering linkages.
5. a, With aid of a suitable sketch, examine the working principles of hydraulic damper.
b, Differentiate between wheel balancing and wheel alignment
c, Enumerate TWO merits and THREE demerits of Independent Front Suspension System.

Best@wishes