

higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

**T1150(E)(N12)T
NOVEMBER EXAMINATION
NATIONAL CERTIFICATE
MOTOR TRADE THEORY N2**

(11040662)

**12 November 2014 (Y-Paper)
13:00–16:00**

This question paper consists of 5 pages.

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
MOTOR TRADE THEORY N2
TIME: 3 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
 2. Read ALL the questions carefully.
 3. Number the answers correctly according to the numbering system used in this question paper.
 4. Write neatly and legibly.
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QUESTION 1

- 1.1 Name FIVE basic carburetor circuits. (5)
- 1.2 List FIVE defects a mechanic needs to check for when there is a lack of fuel in a carburetor float bowl. (5)
- 1.3 The function of a fuel pump is to deliver fuel from the fuel tank to the carburetor.
List THREE tests that are carried out on a defective fuel pump. (3)
- 1.4 Draw a neat diagram of a Venturi system of a carburettor and label the air flow, venture, vacuum, petrol nozzle, air vent and petrol bowl in the diagram. (7)
[20]

QUESTION 2

- 2.1 FIGURE 1 shows an Inner Constant Velocity (CV) joint. Label items A-F in your ANSWER BOOK.

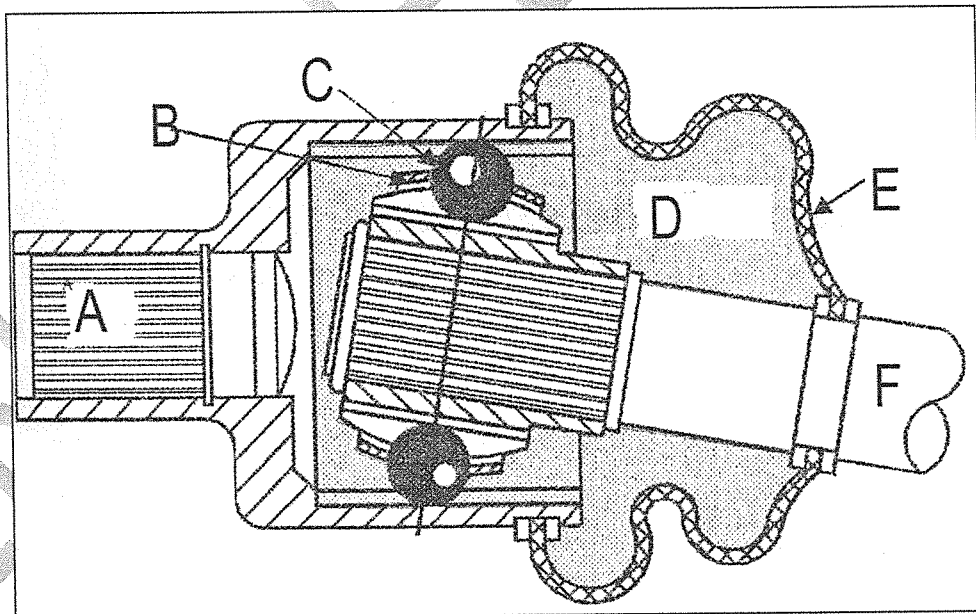


FIGURE 1

- (6)
- 2.2 Name THREE types of final drives found on motor vehicles. (3)
- 2.3 During a test drive you notice that a customer's car has worn shock absorbers.
List FOUR negative effects of worn shock absorbers on a motor vehicle. (4)

- 2.4 Explain the function of pinion-bearing preload. (3)
- 2.5 List FOUR advantages of a torsion bar suspension system. (4)
- [20]

QUESTION 3

- 3.1 FIGURE 2 shows a system of gears in mesh in the FIRST gear. Label items (A–D) in your ANSWER BOOK.

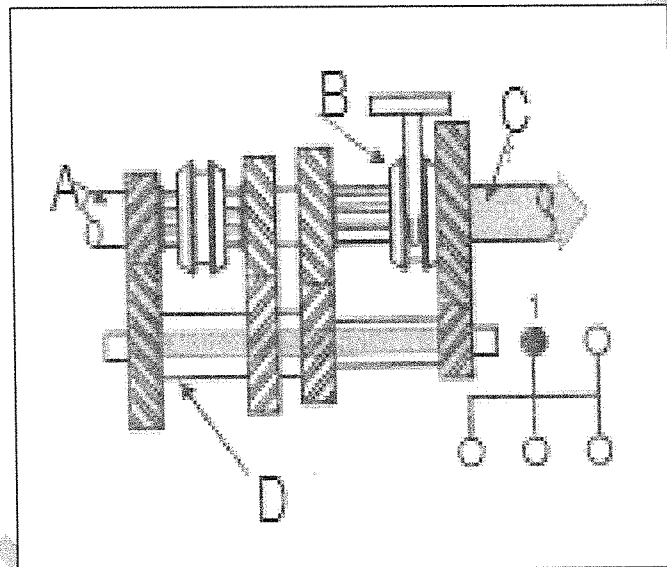


FIGURE 2

- 3.2 State the function of:
- 3.2.1 Interlocking device (2)
 - 3.2.2 Gear selector rod (2)
 - 3.2.3 Reverse idler gear (2)
- 3.3 Name FIVE components of a suspension system. (5)
- 3.4 Define the term *unsprung mass* of a motor vehicle. (2)
- 3.5 List THREE functions of a final drive assembly. (3)

[20]

QUESTION 4

- 4.1 Explain the function of the vacuum servo unit as fitted to disc brakes. (4)
- 4.2 List FOUR disadvantages of disc brakes. (4)
- 4.3 Give TWO causes of dragging brakes. (2)
- 4.4 Explain, with the aid of a neat sketch, the self-adjusting action of disc brakes. (6)
- 4.5 Explain *self-energisation* when referring to drum brakes. (4)
- [20]**

QUESTION 5

- 5.1 State the function of a condenser in an ignition system. (2)
- 5.2 Name the devices used to advance the ignition by stating the conditions under which each device works. (4)
- 5.3 With the aid of a simple sketch, explain the term *dwell angle*. (5)
- 5.4 State TWO functions of king pin inclination. (2)
- 5.5 Define *kerb mass* of a vehicle. (2)
- 5.6 List FIVE types of steering boxes. (5)
- [20]**

TOTAL: 100