

Unit Standard 229

Identify the general locations and functions of motor vehicle systems and their main components

Level 2 Credit 4 v9

Student Name:

School:

Date:

Marked By: _____ **Mark** _____ %

Feedback: **Excellent work**
 Good work

Please attempt all questions
Please resubmit

USEFUL WEBLINKS

Transmissions

<http://youtu.be/K53cPGRE1Kk>

<http://youtu.be/IKywZ730JFs>

<http://youtu.be/6BaECAbapRg?list=PLC158853B50FE712A>

Differential

<http://youtu.be/gIGvhvOhLHU>

Parts of a vehicle

<http://youtu.be/ralw-IZAaf0>

Four Stroke Cycle

<http://youtu.be/OGj8OneMjek>

Diesel Engines

<http://youtu.be/fTAUq6G9apg>

<http://youtu.be/s2WGFELXPNg>

Two and Four Stroke Compared

<http://youtu.be/hV3LImCslpo>

<http://youtu.be/GwFB3RcVcHI>

Engine components/Strokes

http://youtu.be/zA_19bHxEYg

<http://youtu.be/uB2cmkWbCMI>

Clutches

<http://youtu.be/pgF-aBtTBnY>

<http://youtu.be/FfjGohWy-OU>

Manual Transmission

<http://youtu.be/IKywZ730JFs>

<http://youtu.be/QPaUJfA1KsY>

Motorcycle Transmissions

<http://youtu.be/qgHjg3wUUxc>

Brake Systems

http://youtu.be/bMg_j5_AGMg

<http://youtu.be/VxLTDtaRCZk>

Drum Brakes

<http://youtu.be/bnc3VnQ8kUY>

Disc Brakes

<http://youtu.be/Mmls5foCor0>

Steering and Suspension

<http://youtu.be/MCiwQb5sQ74>

Non Independent Suspensions

<http://youtu.be/ZyGX4Qu69sE>

Rack and Pinion

<http://youtu.be/iHqOyAOeDis>

<http://youtu.be/LfqieV1xzJQ>

Recirculating Ball

<http://youtu.be/kBFz6wfli7w>

<http://youtu.be/BIM1AyxfYkw>

Power Steering

<http://youtu.be/i6Mv8CLc93Y>

<http://youtu.be/uL2MOjyhqmo>

Chassis

<http://youtu.be/PYje-4D76kc>

Fuel Injection

<http://youtu.be/TKmbkUohuk4>

http://youtu.be/Ir_TE3YB07k

Ignition systems

<http://youtu.be/W94iksaQwUo>

http://youtu.be/QYx8J_5l5wY

Starter Motor

http://youtu.be/8WD5Q_Pf3pM

REVIEW QUESTIONS ONE

Q1 Complete the following sentence.

The modern motor vehicle is designed with
and vehicle in mind. The materials used in
the of the body must be strong enough to cope with the
twin of passenger safety and .

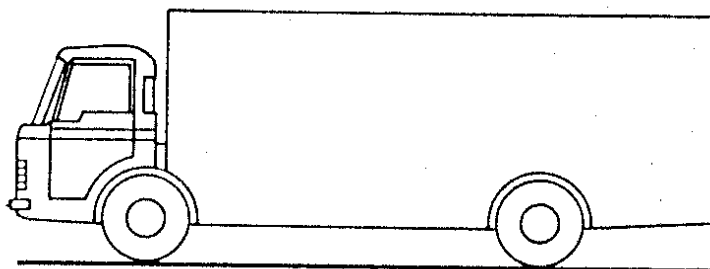
Q2 Engines are mounted in the engine compartment in one of two configurations.

These are:

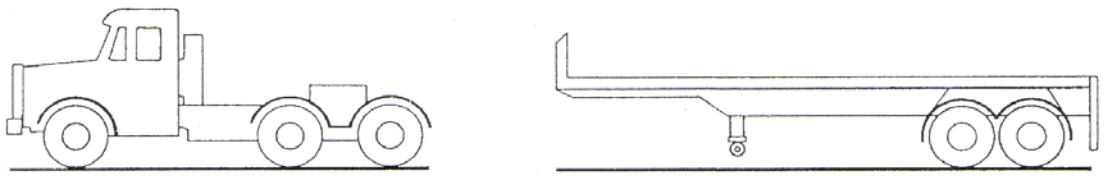
Q3 Explain how laminated windscreens are designed not to splinter in the event of a crash.

Q4 Identify the type of heavy vehicles shown in the following diagrams.

(a)



(b)



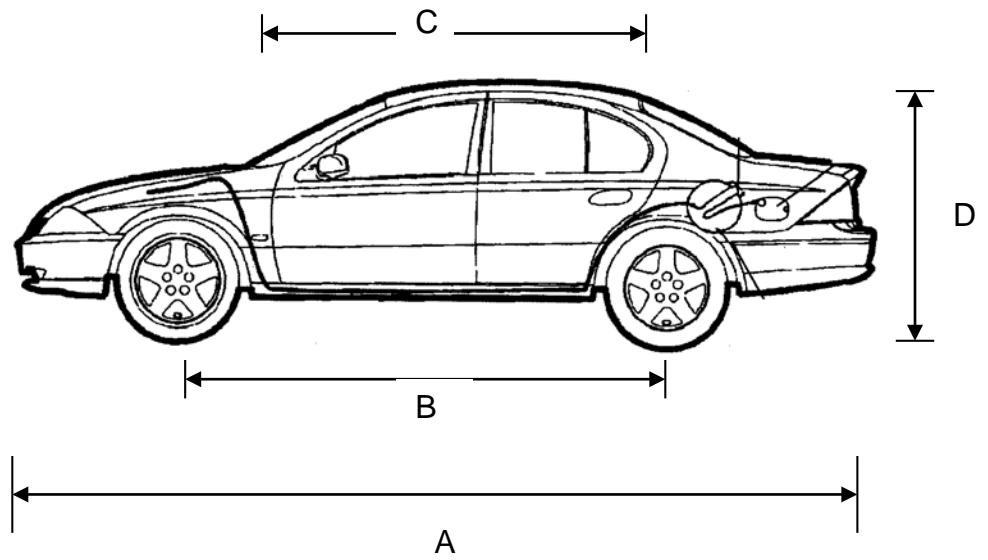
Q5 What is being measured by the arrows A-D below:

(a)

(b)

(c)

(d)



REVIEW QUESTIONS TWO

Q6 Complete the following sentences.

An engine converts potential energy to _____ energy by drawing a

mixture of _____ and _____ through a carburettor, then

_____ it by the action of a rising _____ before

igniting it with the _____ tension _____ .

Camshafts are located parallel to the _____ , and rotate at

_____ engine speed.

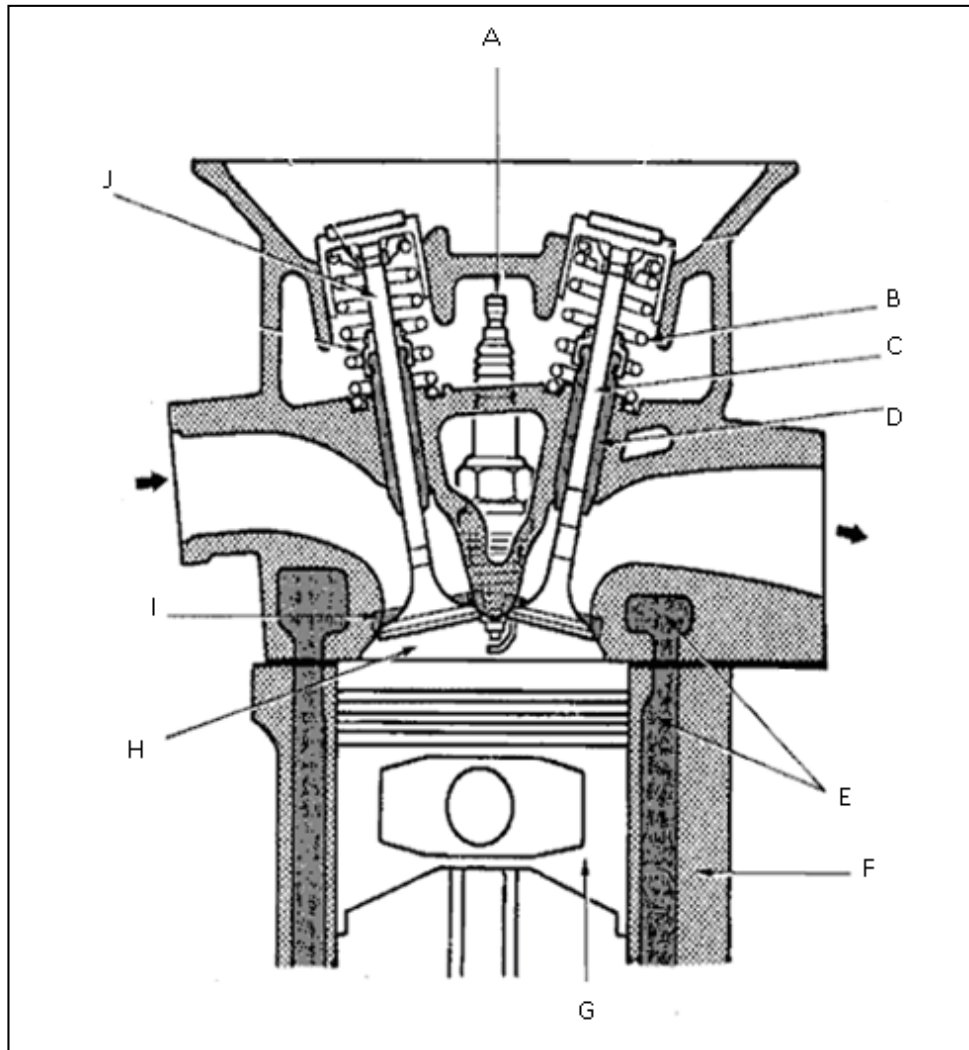
Q7 Explain how a diesel engine creates combustion.

Q8 What is the function of the cooling fins on a motorcycle engine?

Q9 What is the function of the water jackets that are housed in the cylinder head?

Q10 What is the function of the flywheel?

Q11 Name the components labelled A-J in the engine diagram.



A

B

C

D

E

F

G

H

I

J

REVIEW QUESTIONS THREE

Q12 Complete the following sentences.

The drive-line transmits the _____ developed by the _____
to the _____ of the vehicle. The purpose of the universal
joint is to absorb _____ changes to the _____
caused by the _____ surface and vehicle _____. Trans axles
contain both the _____ and _____ in their housing.

Q13 There are three common types of drive configurations. These are:

Q14 The clutch unit has two functions, these are:

Q15 What component transfers the engine power to the automatic transmission?

Q16 In rear wheel drive vehicles the differential performs two functions, these are:

Q17 How does a transaxle setup differ to a RWD set up?

REVIEW QUESTIONS FOUR

Q18 What is the main function of the suspension system?

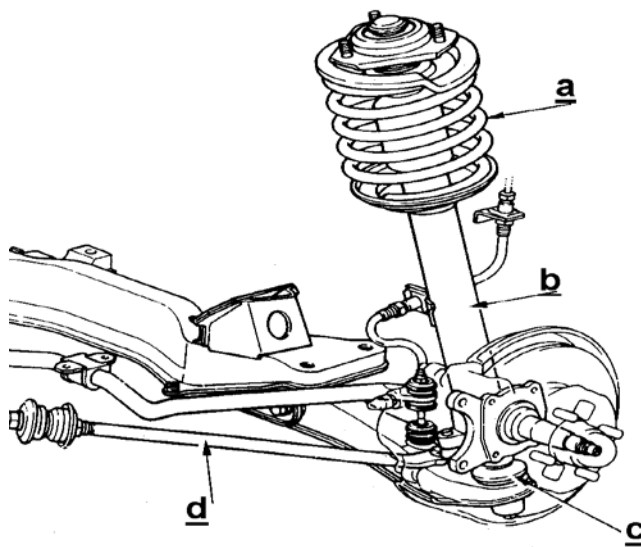
Q19 Name the component arrowhead in the diagram

A

B

C

D



Q20 What is the main function of the coil springs that are used in suspensions?

Q21 What is the main function of the trailing arm that are used in rear suspensions?

Q22 What is the main function of the steering system?

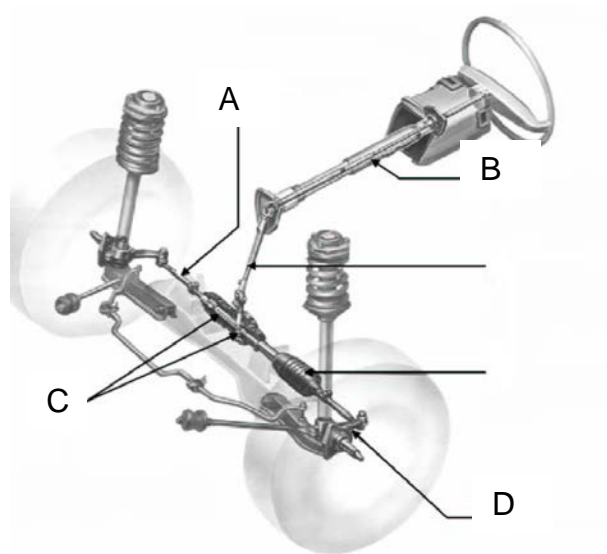
Q23a Name the components labelled A to D in the diagram.

A

B

C

D



Q23b What is the main function of the component labelled B above?

REVIEW QUESTIONS FIVE

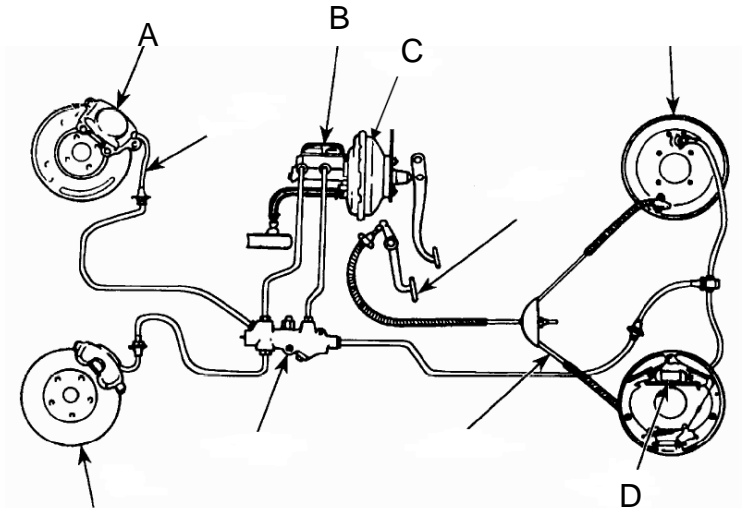
Q24 Name the components labelled A to D in the diagram.

A

B

C

D



Q24b What is the main function of the component labelled B above?

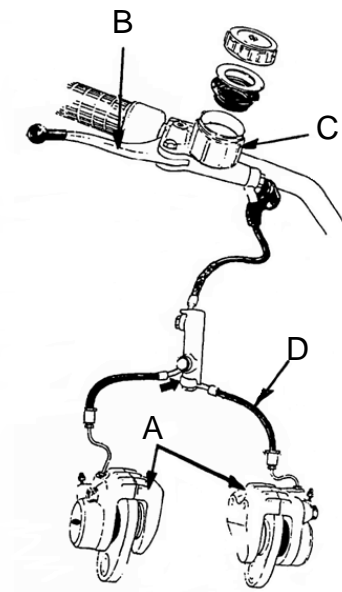
Q25 Name the components labelled A to D in the diagram.

A

B

C

D



REVIEW QUESTIONS SIX

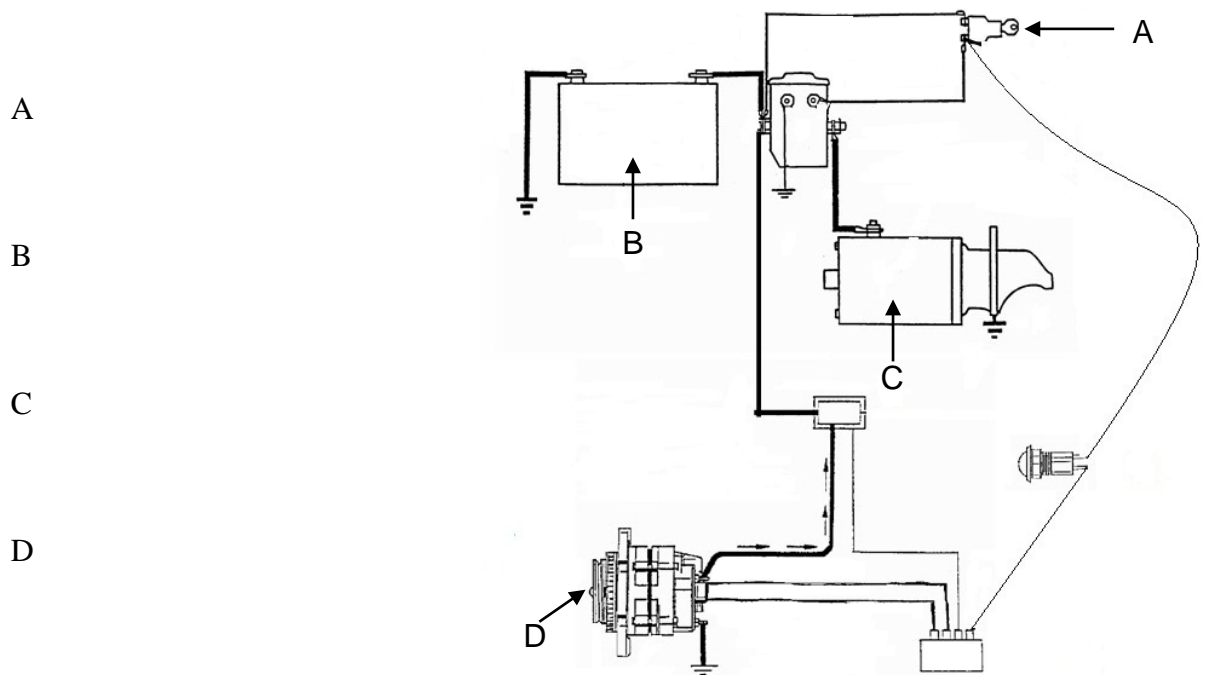
Q26 What is the main function of each of the following electrical components?

Alternator

Battery

Wiring loom

Q27 Name the components labelled A to D in the diagram.



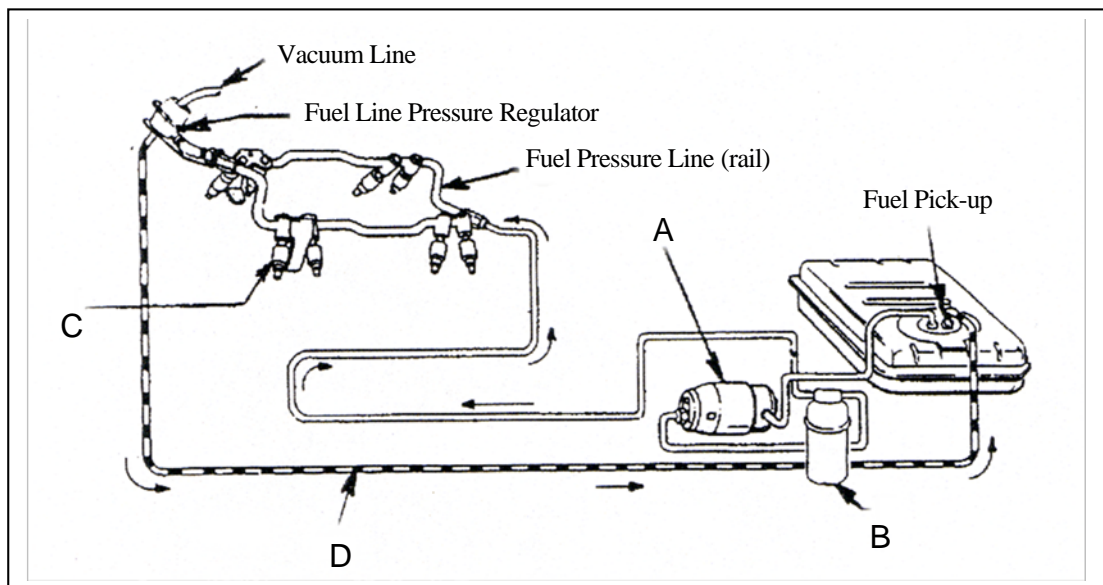
Q27b What is the main function of the component labelled C above?

Q28 What should be considered when selecting replacement light bulbs?

REVIEW QUESTIONS SEVEN

Q29 What is the function of the throttle body in an air intake system?

Q30 Name the components labelled A to D in the diagram.



A

B

C

D

Q30b What is the main function of the component labelled A?

Q30C What is the main function of the component labelled C?