

# Caravan Towing - (Before You Hit The Road) Test - Questions

## Legal & Technical Items - Terminology; Ratings & Masses

1: What do the following abbreviations mean:

**ATM:**

- (a) Average Travelling Mass
- (b) Australian Testing Method
- (c) Aggregate Trailer Mass

**GTM:**

- (a) General Technical Manufacture
- (b) Gross Trailer Mass
- (c) Guaranteed Trailer Mass

(Tow vehicle) **GVM:**

- (a) Gross Vehicle Mass
- (b) Generous Velocity Measurement
- (c) German Vehicle Method

(Tow vehicle) **GCM:**

- (a) Guaranteed Coupling Movement
- (b) Grand Co-operative Management
- (c) Gross Combination Mass

2: Are the above items “Actual Masses” or “Ratings”:

- (a) Actual Masses
- (b) Both
- (c) Ratings

3: Are "Tare Mass" & "Ball-Loading "Actual Masses" or "Ratings":

- (a) Neither
- (b) Ratings
- (c) Actual Masses
- (d) Both

4: The *Definition* of "**Tare Mass**" of a Caravan is:

- (a) The load (force) on the coupling when the caravan is fully-loaded
- (b) The *total permitted* mass of the laden caravan transmitted to the ground by the caravan tyres, when carrying the maximum load recommended by the manufacturer, when coupled to a tow-vehicle. This *Rating* must *not* exceed the Axle-Group (wheels / tyres/ suspension / axle) *Rating* stated by the chassis manufacturer
- (c) The actual mass of the caravan with all OEM equipment and options fitted - as specified on the *Sales Contract* - as it leaves the *Supplier*, with empty water tanks and empty LPG cylinders, and without any luggage or personal effects. This is measured with the jockey-wheel and the caravan tyres on the weigh-bridge.

5: What does each element of a tyre designation mean: **LT-P 225 / 85 R 16 90 Q**

- |      |                            |                          |                        |
|------|----------------------------|--------------------------|------------------------|
| LT:  | (a) Low Temperature        | (b) Light Truck          | (c) Large Texture      |
| P:   | (a) Positive               | (b) Pressurized          | (c) Passenger (car)    |
| 225: | (a) Top Speed (225 mph)    | (b) Tyre Diameter ("     | (c) Section Width (mm) |
| 85:  | (a) Minimum Speed (85 mph) | (b) Profile Ratio (%)    | (c) Maximum Temp       |
| R:   | (a) Radial Construction    | (b) Radical Construction | (c) Racing Tyre        |
| 16:  | (a) Tread Width (cm)       | (b) Rim Diameter ("      | (c) Inflation Pressure |
| 90:  | (a) Year of Manufacture    | (b) Load Rating          | (c) Manufacturer ID    |
| Q:   | (a) Speed Rating           | (b) Queen's Approval     | (c) Quick Inflation    |

6: What is the standard size for a Ball-coupling: (a) 50 mm (b) 2" (c) 3 cm

7: What does *ADR* stand for:

- (a) Alternative Driving Requirements
- (b) Advanced Development Regime
- (c) Australian Design Rule

- 8: What does *AS* stand for:
- (a) Australian Standard
  - (b) Automotive Satisfaction
  - (c) African Substitution
- 9: Does the *Tyre & Rim Association* Manual give:
- (a) The names of all companies who make tyres and rims
  - (b) The starting odds of all past winners of the Melbourne Cup
  - (c) The correct tyre / rim combinations, and the recommended inflation pressures for all tyre sizes, to suit the load carried by the tyre
- 10: Are fixed (non-swivel) 50 mm *Ball-couplings* suitable for medium / severe off-road use:
- (a) Yes (b) No (c) Only in winter
- 11: *Brakes* are required on caravans:
- (a) Only if the driver of the tow-vehicle is not very good
  - (b) Yes, on all caravans
  - (c) If the GTM Rating is above 750 kg
- 12: *Break-away* brakes are required:
- (a) Only in winter
  - (b) If the GTM Rating is above 2,000 kg
  - (c) Only if you drive faster than 120 km/h
- 13: *ABS* (on tow-vehicle) stands for:
- (a) Automatic Braking System
  - (b) Australian Broadcasting Syndicate
  - (c) Anti-lock Braking System

- 14: If ABS is fitted to the tow-vehicle, will it also automatically work on the caravan:
- (a) No
  - (b) Hopefully... if you are in trouble
  - (c) Yes
- 15: The *Ball-Loading* at any time:
- (a) Is not important
  - (b) Should either be around 1%, or 30%, of the Tare Mass
  - (c) Should be *around* 10% of the caravan/trailer mass (if not otherwise advised by the manufacturer, in writing)
- 16: If the *Ball-Loading* is too *LIGHT*:
- (a) You will go faster
  - (b) The caravan will most likely develop a *dangerous* sway (snaking) situation
  - (c) The caravan will be harder to lift on and off the coupling
- 17: If the *Ball-Loading* is too *HEAVY*:
- (a) You will be able to change the front tyres of the tow-vehicle without needing a jack
  - (b) Tyre wear will be reduced
  - (c) Handling, steering and safety will be dangerously impaired, and the tow-bar may fail
- 18: Heavy items should be stored in the caravan:
- (a) On the roof
  - (b) On the A-frame or rear bumper
  - (c) As close as possible to the axle(s)
- 19: If the caravan tyre pressures are too *LOW*:
- (a) The vehicle will be much lighter because there is not as much air in the tyres
  - (b) The vehicle will sway and wallow, and the outer edges of the tread will wear out
  - (c) The vehicle will be much closer to the road, greatly reducing the air drag

- 20: If the caravan tyre pressures are too *HIGH*:
- (a) The vehicle will skip and bounce, and the centre of the tread will wear out
  - (b) The vehicle will not vibrate as much
  - (c) It will wreck tyre-pressure gauges, although a smooth ride is achieved
- 21: The caravan allowable / legal Pay-load (Load-carrying capacity) is
- (a) Whatever the driver thinks their tow-vehicle can handle OK
  - (b) ATM Rating – (minus) Tare Mass
  - (c) 50% of the GTM Rating + (plus) the Ball-loading
- 22: The left-side and right-side brakes should be:
- (a) Regularly checked for wear, and adjusted evenly
  - (b) Greased on a daily basis when travelling
  - (c) As big as those on the tow-vehicle
- 23: The caravan lamps (Position / Stop / Turn-Signal / End Outline / Side Marker)
- (a) Operate best on 230 volts
  - (b) Need to be tapped moderately hard if they do not operate reliably
  - (c) Should be checked for correct operation before setting off on a trip
- 24: When towing a caravan, added or extended mirrors:
- (a) Slow you down appreciably because of the very high air resistance
  - (b) Must be used so as to obtain a clear field-of-view along each side of the vehicle
  - (c) Should only be fitted when going “off-road” on dusty tracks
- 25: When towing a caravan, the time and distance needed to *accelerate* from 60 - 80 km/h (compared to just driving the tow-vehicle on its own) are:
- (a) Hardly worth worrying about
  - (b) *Appreciably* much longer
  - (c) Around 10 seconds and 50 metres longer

- 26: When towing a caravan / trailer, the time and distance needed to *slow down* from 80 – 60 km/h (compared to just driving the tow-vehicle on its own) are:
- (a) Around 5 seconds and 100 metres shorter, because of the additional brakes
  - (b) Again, hardly worth worrying about
  - (c) *Appreciably* much longer
- 27: When towing a caravan around a curve, you should:
- (a) Speed up, so that the caravan will “drift” around the curve better
  - (b) Slow down, because of the additional centrifugal force, and the risk of swaying
  - (c) “Cut the corner” (especially on rough roads) to increase the radius of the curve
- 28: *Doubling* your speed - say from 40 - 80 km/h - will:
- (a) Improve the handling and braking performance of the caravan
  - (b) Increase the kinetic-energy - and braking distance - by a factor of 4 (four)
  - (c) Improve fuel economy (because the trip will take much less time)
- 29: If you see a B-Double approaching (from the front or rear), you should:
- (a) Immediately give a friendly call to the driver on Channel 79
  - (b) Speed up, so as to quickly get the meeting / over-taking over and done with
  - (c) Slow down a little, and firmly hold the steering wheel in case a “sway” starts
- 30 If the caravan/trailer starts to “sway” or “snake”, you should:
- (a) Hit the brakes as hard as possible
  - (b) Accelerate as hard as possible
  - (c) *Don't* panic and *don't* make any sudden/severe manoeuvres, but gently slow down, ensuring that you keep steering in the direction that you need to.