



**The Chartered
Institute of Logistics
and Transport**

**Sample
DGSA Examination Papers
March 2019 onwards**

Paper 2

NOTE TO CANDIDATES

1. Answers to questions must be given in the space provided below each question.
2. In your answers use of the following are permitted:

ADR ADR Agreement 2019

CDGRR European Communities (Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment) Regulations 2011 to 2019 (see link below):

https://www.hsa.ie/eng/Your_Industry/ADR_Carriage_of_Dangerous_Goods_by_Road/ADR_General_Information/Legislation/.

An administrative consolidation of the regulations up to 2017 is available (see link below):

[https://www.hsa.ie/eng/Your_Industry/ADR - Carriage of Dangerous Goods by Road/ADR General Information /Legislation/SI No 349 of 2011 CONSOLIDATED.pdf](https://www.hsa.ie/eng/Your_Industry/ADR_-_Carriage_of_Dangerous_Goods_by_Road/ADR_General_Information/Legislation/SI_No_349_of_2011_CONSOLIDATED.pdf).

Note: the consolidated version was prepared by the Health and Safety Authority for ease of reference only and is not a legal document.

3. All answers **must** be in ink.
4. If you need extra space, write 'continued' and finish your answer in the space provided at the end of this booklet. Make sure you mark any continuation with the question number.
5. Rough work, not intended to be read by the marker, should be scored out.
6. No part of this booklet is to be torn out. No writing is allowed on any other paper.
7. No unauthorised material may be brought into the examination room.
8. No talking or other means of communication between candidates is allowed during the examination. Any candidate found to be doing so will be subject to instant dismissal from the examination room. All queries should be directed to an invigilator.
9. All queries should be directed to an invigilator.

10. You may not leave the examination room during the first 30 minutes or last 15 minutes of the examination unless you are ill. In this case, let an invigilator know and s/he will make sure the correct procedure is followed.
11. You must hand your booklet to an invigilator before leaving.
12. Booklets must not be removed from the examination room under any circumstances.

Note: When you use a reference document to find your answer, you must include the following information – the document title and, as appropriate, the relevant paragraph numbers, sub-paragraph numbers, section, regulation, and schedule.

Marks may be lost if relevant detail is omitted.

Dangerous Goods Safety Adviser

Examination Paper 2

70 Marks

Pass Mark 65% (47 Marks)

YOU MUST ANSWER CASE STUDY ONE IN SECTION A

YOU MUST ANSWER ONE OR OTHER OF THE TWO CASE STUDIES IN SECTION B

Attempt ONE Case Study from Section A and one Case Study from Section B.

Section A

Attempt Case Study 1

1. Mendit Fast Ltd.'s business is concerned with supplying the motor vehicle trade with all its needs. It is involved in supplying a variety of substances, mixtures and articles for this industry's needs.
 - a. Supplying wet batteries, non-spillable, form a significant part of the company's trade. State the Class, UN number and classification code assigned to these articles.

(4 Marks)

Reference(s):	
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- b. Some of the articles it supplies are replacement air bag modules for some of the car manufacturers. The sales manager notes that these could be explosive articles, UN 0503 of Class 1, or miscellaneous dangerous goods, UN 3268 of Class 9. The manager asks you as the company's DGSA to help them understand the difference between the two classifications. What would you advise?

(4 Marks)

Reference(s):	
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- c. The following consignment is to be dispatched on one of the company's 5 tonne maximum permissible gross mass delivery vans:
- 5 x 25 litre drums of flammable paint of Class 3, UN 1263, packing group III
 - 4 x 25 litre jerricans of a degreasant called trichloroethylene, UN 1710
- Would the driver need to have a valid ADR driver training certificate? Explain your answer as fully as possible.

(10 Marks)

Reference(s):	
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- d. Many of the packaged goods loads that are carried on the company's vehicles require the vehicles to be marked with reflectorized orange-coloured plates, because of the amounts of dangerous goods they are carrying.
- i. What are the minimum dimensions of these plates (ignoring any exemptions)?
 - ii. Where should they be displayed?
 - iii. What should happen to the plates once the packaged dangerous goods have been unloaded?
 - iv. State a requirement with respect to fire resistance that any covers for these plates should have.

(6 Marks)

Reference(s):	
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- e.
- i. What is the minimum total capacity of fire extinguishers with which the 5 tonne vehicles should be equipped?
 - ii. What is the minimum capacity of the fire extinguisher for fighting a fire in the engine or cab of the vehicle?
 - iii. What is the minimum capacity of at least one other fire extinguisher with which these vehicles should be equipped?
 - iv. In what circumstances could the number of fire extinguisher be reduced to just 1 x 2 kg extinguisher?
 - v. What details should be inscribed on the fire extinguishers?
 - vi. With what standard should the fire extinguishers comply? You may be brief in your answer.

(8 Marks)

Reference(s):	
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Section B

YOU MUST ANSWER CASE STUDY 2 or CASE STUDY 3

Case Study 2

1. Tank-vehicles are to carry ammonium nitrate liquid (hot solution of 85% concentration) from Vienna in the German speaking country of Austria to Barcelona, Spain passing through some road tunnels with restrictions. It is a contractual requirement that a sample of the substance is sent in advance to the consignee for evaluation before delivery. The consignor also wishes to explore the possibility of delivery of the substance in a dry, powdery form, as ammonium nitrate-based fertilizer in bulk to see if this is a cheaper option.

- a. What is the Class and UN number of the liquid substance?

(3 Marks)

Reference(s):	
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- b. Is the transport of the ammonium nitrate liquid in tank-vehicles permitted?
Explain how you reached your conclusion.

(3 Marks)

Reference(s):	
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- c.
- i. Show the dangerous goods information that should be shown in the transport document on the outward laden journey to Barcelona.

 - ii. In what language(s) should the transport document be prepared? Be as explicit in your answer as you can.

 - iii. What should be done to the original transport document for the laden tank-vehicle outbound to Vienna to allow it to be used for the return journey of the empty uncleaned tank-vehicle?

(7 Marks)

Reference(s):	
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- d.
- i. What marking plates should be affixed and where to the tank-vehicles? Give full details of what is required for the tank-vehicles.

- ii. What placards are required to be affixed to the tank-vehicles and where?

(6 Marks)

Reference(s):	
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e.

- i. What is the minimum total capacity of fire extinguishers with which the tank-vehicles should be equipped? Each tank-vehicle has a maximum permissible mass of 24 tonnes.
- ii. What is the minimum capacity of the fire extinguisher for fighting a fire in the engine or cab of the vehicle?
- iii. What is the minimum capacity of at least one other fire extinguisher with which the tank-vehicles should be equipped?
- iv. What details should be inscribed on the fire extinguishers? v. With what standard should the fire extinguishers comply? You may be brief in your answer.
- v. With what standard should the fire extinguishers comply? You may be brief in your answer.

(6 Marks)

Reference(s):	
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- f. Can the samples of ammonium nitrate liquid be sent forward in advance of the tanker deliveries as Limited Quantities packages? Explain your answer as fully as you can.

(3 Marks)

Reference(s):	
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b. The consignment from Milan consists of 20 palletised 10 litre drums of UN 1994. Each drum has a maximum gross mass of 15 kg.

i. Identify this substance.

ii. What danger marks and labels should appear on the drums? State your answer as fully as you can.

(4 Marks)

Reference(s):	
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c.

i. Show the dangerous goods information that should be shown in the transport document for the UN 1994 drums.

ii. In what language(s) should the transport document be prepared? Be as specific as you can in your answer and draw a conclusion.

(5 Marks)

Reference(s):	
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d.

- i. During the journey, back from Milan to Ireland having collected both consignments, the driver finds himself/herself unable to find a depot, factory or supervised lorry park to leave their vehicle overnight. What further choices are open to the driver? Justify your answer fully with reference to the quantities of both of the substances forming the load and any relevant thresholds. The driver has already made both collections when this problem arises.
- ii. Are there any circumstances when the Competent Authority has to be involved in any of the decisions taken by the driver concerning places where to stop?

(6 Marks)

Reference(s):	
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- e. The driver employed by Lynch Haulage (1972) Ltd. is a Romanian. His/her command of the English language is not good enough to understand the instructions in writing provided by the employer in English. What action should the employer take?

(2 Marks)

Reference(s):	
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- f.

i. What marking plates should appear on the vehicle and where should they be placed?

ii. What are the minimum dimensions of the plates, noting that it is a large vehicle?

(3 Marks)

Reference(s):	
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- g.
- i. State the three items of miscellaneous equipment that must be carried on the vehicle for all danger label numbers (noting the label numbers of the two substances forming the load).

 - ii. State any two items of equipment for the personal protection of the vehicle crew that must be carried on board the vehicle.

 - iii. Why is it necessary for each member of the vehicle crew to be equipped with an emergency escape mask?

 - iv. For which of the two substances is it necessary for a collecting container and why?

(5 Marks)

Reference(s):	
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- h. After unloading the UN 1620, some of the substance is noticed on the floor of the trailer. The driver still has to make a second delivery of UN 1994 to Dundalk. What should be done next?

(3 Marks)

Reference(s):	
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[END OF QUESTION PAPER]