

SCOTTISH QUALIFICATIONS AUTHORITY
 DANGEROUS GOODS SAFETY ADVISER EXAMINATION
 EXAMINATION BOOKLET—ROAD



SAMPLE

.....
 Candidate's signature

Candidate's Name /
Surname Forename(s)

Date of Birth / /

Examination Centre

Sample Paper
 1400 – 1545

Seat no:

NOTES

1. You are required to complete the section above in BLOCK CAPITALS.
2. You must sign the examination booklet in the box provided in the top right hand corner.
3. You must enter your seat number in the box provided.
4. You must not detach any sheets from the examination booklet.
5. Attempt ONE Case Study from Section A and ALL of Section B.
6. Do not write anything below this line.

For Markers' use only

Marks Awarded

Section A	Section B			Total Marks
	2	3	4	

Marker's initials Principal Marker's initials

For SQA use only

Script checker's initials

INSTRUCTIONS TO CANDIDATES

It is recommended that you read through the paper before answering any questions.

Questions may be answered in any order and it is recommended that you answer those questions you consider to be the more straightforward questions first.

You need to gain at least 32 marks to pass this paper.

Answers to questions must be given in the space provided below each question.

In your answers, use the permitted abbreviations for reference documents contained in the handout.

All answers must be in ink.

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.

Rough work, not intended to be read by the marker, should be scored out.

No part of this booklet is to be torn out. No writing is allowed on any other paper.

No unauthorised material may be brought into the examination room.

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.

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.

You must hand your booklet to an invigilator before leaving. Booklets must not be removed from the examination room under any circumstances.

[Turn over for Section A on *Page four*]

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 marginal, section, regulation, schedule, paragraph and sub-paragraph numbers. Marks may be lost if relevant detail is omitted.

Give your answer in the space provided below each question.

Attempt ONE case study from Section A and ALL of Section B.

SECTION A

Answer ONE of the following case studies. You have a choice of three.

(Usually, there is a choice of five Case Studies in the actual examination.)

Case Study 1A

Your road haulage company has a contract to transport helium in refrigerated liquefied state in tank containers from Felixstowe to Paris, France. A stock of large cylinders is also dispatched before the first tank container delivery.

For the purpose of the question, ignore the implications of any part of the carriage being by sea.

(a) Show how the substance will be described on the transport document. (6)

Reference	
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(b) State the maximum filling ratio permitted for a tank container laden with deeply refrigerated liquefied helium and any conditions attached to this ratio. (3)

Reference	
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Attempt ONE case study from Section A and ALL of Section B.

Remember to include details of your references.

Marks

1A (continued)

- (c) Write the identification numbers which should be shown in the orange panels on the tank containers in the following diagram. (3)



Reference	
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- (d) The tank container has been in service for seven and a half years from new. A return journey to France from Felixstowe is expected to take one month. Explain, with reasons, whether or not the return journey can be undertaken before a periodic test is due to be performed. (2)

Reference	
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- (e) Prior to the delivery by tank container, the customer had been using refillable gas cylinders of compressed helium. State the marks which should appear on these cylinders, with respect to their design, construction and testing. (8)

Reference	
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Attempt ONE case study from Section A and ALL of Section B.

Remember to include details of your references.

Marks

1A (continued)

- (f) For the return of the empty uncleaned container from France to Great Britain, how will the consignment be described in the transport document?

(10)

Reference	
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- (g) During the outward journey, the tank container is involved in an accident which results in injury to a number of people. What action must the DGSA for the company ensure is taken once the incident has been dealt with?

(3)

Reference	
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(35)

Attempt ONE case study from Section A and ALL of Section B.

Marks

Remember to include details of your references.

Case Study 1B

A consignment of packaged dangerous goods as shown below is to be conveyed from Aberdeen to London in a freight container. The journey cannot be completed in a day so the vehicle carrying the container will be parked overnight. The load consists of:

- 1 UN2054 packed in 2 × 210 litre steel drums;
- 2 10 × 50 litre plastic drums of UN1838;
- 3 UN2699 packed in 4 wooden boxes each containing 50 × 1 litre glass bottles;
- 4 A consignment of UN1993. The product contains ethyl acetate and acetal. It has a flashpoint of 25 °C and an initial boiling point of 67 °C. It is packed in 30 × 30 litre steel drums.

(a) Complete the following table.

(12)

	Proper Shipping Name/Designation	UN Number	Class	Packing Group	Quantity
1		UN2054			2 × 210 litre drums
2		UN1838		II	10 × 50 litre plastic drums
3		UN2699	8		4 wooden boxes each containing 50 × 1 litre glass bottles
4		UN1993			30 × 30 litre steel drums

Reference	
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(b) Identify whether each of the consignments described in items 1 to 4 above are subject to the CDGRoad Regulations. In each case, briefly explain your answer.

(5)

1 UN2054

2 UN1838

3 UN2699

4 UN1993

Reference	
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Attempt ONE case study from Section A and ALL of Section B.

Remember to include details of your references.

Marks

1B (continued)

(c) What dangerous goods information relating to the substance must be displayed on the vehicle and the container during the journey? In your answers, identify the minimum dimensional requirements for this information. (8)

(i) Vehicle

(ii) Container

Reference	
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(d) When selecting a suitable overnight parking location, must the driver of the vehicle comply with the special supervision and parking duties contained in the CDGRoad regulations? Briefly explain your answer. (3)

Reference	
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(e) Provide a transport document entry for the consignment described under item 4—UN1993. (4)

Reference	
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(f) On arrival at the consignee's premises, one of the drums containing UN1838 is found to have leaked into the container. Identify one action which must be taken under CDGRoad regulations. (3)

Reference	
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(35)

Attempt ONE case study from Section A and ALL of Section B.

Remember to include details of your references.

Marks

Case Study 1C

It is proposed to use a road tanker to transport benzyldimethylamine from Paris to Glasgow.

For the purpose of the question, ignore the implications of any part of the carriage being by sea.

(a) State the full ADR classification and description of this material.

(4)

Reference	
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(b) State the Appendix (including the part), of ADR you would refer to for the provisions applicable to tanks of all classes.

(2)

(c) State whether this material may be carried in a fixed tank.

(2)

Reference	
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(d) (i) As regards the design of the tank, what is the minimum calculation pressure required to carry this item?

(2)

Reference	
-----------	--

(ii) The customer would prefer a bottom discharge arrangement. Is this permissible?

(2)

Reference	
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Attempt ONE case study from Section A and ALL of Section B.

Remember to include details of your references.

Marks

1C (continued)

(e) The tank is subject to periodic inspection.

(i) What is the maximum interval between inspections?

(1)

Reference	
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(ii) List four items of information relating to the inspection which must be marked on the shell of the tank or on an attached corrosion-resistant plate.

(4)

Reference	
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(f) (i) State the marking to be applied to the vehicle, including its location.

(3)

Reference	
-----------	--

(ii) What dimensions should this marking be?

(1)

Reference	
-----------	--

Attempt ONE case study from Section A and ALL of Section B.

Remember to include details of your references.

Marks

1C (continued)

(g) (i) State the labelling to be applied to the tank, including its location.

(3)

Reference	
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(ii) What dimensions should this label be?

(1)

Reference	
-----------	--

(h) In addition to the transport document, what other documentation must be carried?

(6)

Reference	
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(i) You are the DGSA for the employer of the driver involved in this journey. The vehicle has an accident which causes it to turn on its side and the load to leak. A person is made ill by the leaking fumes. What are the legal requirements with which you must comply?

(4)

Reference	
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(35)

SECTION B

Marks

Answer ALL questions.

Remember to include details of your references.

- 2 (a) State whether approved vocational training is required for a driver of a vehicle with a permissible maximum weight of 3.5 tonne carrying 3 × 4 litre nominal capacity cylinders of compressed chlorine, giving reasons for your answer. (3)

Reference	
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- (b) What type and number (ie how many) of fire extinguishers should be carried on the vehicle? (2)

Reference	
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- 3 CDGRoad requires the operator to provide the driver with transport documentation which consists of five items of information.

List four of these items.

(5)

Reference	
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Remember to include details of your references.

Marks

- 4 A consignment of packaged dangerous goods is being shipped by road and sea from Germany to Italy.

For the purpose of the question, ignore the implications of part of the carriage being by sea.

- (a) List two items, specific to the product, that must be shown on the transport document for the road journey.

(2)

Reference	
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- (b) What language(s) must the transport document be in?

(3)

Reference	
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[END OF QUESTION PAPER]

CONTINUATION SHEET

Remember to show the question number beside each answer.

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