



**EAST AFRICAN SCHOOL OF AVIATION**  
**FINAL EXAMINATION**  
**ACM 04**  
**SUBJECT: DGR PACKING**

Duration: 2 HRS

DATE:

TIME: 1100 – 1300hrs

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INSTRUCTIONS TO ALL CANDIDATES

1. *Answer all questions*

1) \_\_\_\_\_ are packagings consisting of one or more inner packagings contained one outer packaging (2)

DGR \_\_\_\_\_

2) The Item is : Aircraft **Batteries –wet filled with alkali**  
Net Quantity : **60 kg**  
Outer Packaging : UN Specification wooden box (4C1)

**The destination is only served by a passenger aircraft**

- a) What is the applicable UN Number? (1) : \_\_\_\_\_
- b) What is the applicable class or division? (1) : \_\_\_\_\_
- c) What PG performance standard is required? (1) : \_\_\_\_\_
- d) Is the battery acceptable? (2) : \_\_\_\_\_

Explain

3) The following Packages are overpacked in a strong wooden box.

Package A	: 4 L	Dioxane	UN1165
Package B	: 4 kg	Acetylene, dissolved	UN1001
Package C	: 3 kg	Lead dioxide	UN1872

Note: The inside packages have been correctly packed, marked and labelled, and the Overpack bears the labels and markings required as per the applicable DGR. (5)

- a) Does the shipment meet all the requirements for Overpacks?
- b) From Q7 above, explain your answer:

4) Is the following Package acceptable for transport on a passenger aircraft? Answer by “Yes” or “No” giving references.

Outer Packaging: **Limited Quantity** packaging weighing 26.0 kg (5)

<b>Item A:</b> Acetone	UN 1090	one plastic bottle, 0.25 L
<b>Item B:</b> Acetyl bromide	UN 1716	one plastic bottle, 0.10 L
<b>Item C:</b> Adhesives (PG III)	UN 1133	one plastic bottle, 1.0 L

Calculation and answer:

5) The Item is : UN3155

Net Quantity : **50 kg**  
Inner packaging : Plastic bottles  
Outer Packaging : UN Specification steel drum(s) (1A2)

**The destination is only served by a passenger aircraft**

a) What is the applicable

- 1. UN Number **(1)** : \_\_\_\_\_
- 2. Class or division **(1)** : \_\_\_\_\_
- 3. Packing Group **(1)** : \_\_\_\_\_
- 4. Packing instruction **(1)** : \_\_\_\_\_
- 5. Maximum net quantity per package **(1)** : \_\_\_\_\_

b) How many outer packagings will be required? **(1)** : \_\_\_\_\_

c) How many inner Packagings will be required? **(1)** : \_\_\_\_\_

d) Are single packagings permitted for this item? **(1)** : \_\_\_\_\_

**6)** The Item is : Benzenesulphonyl hydrazide  
Net Quantity : **20 kg**  
Inner packaging : Plastic bottles  
Outer Packaging : UN Specification steel drum(s) (1A2)

**The destination is only served by a cargo aircraft**

a) What is the applicable

- 1. UN Number **(1)** : \_\_\_\_\_
- 2. Class or division **(1)** : \_\_\_\_\_
- 3. Packing Group **(1)** : \_\_\_\_\_
- 4. What is the full proper shipping name (incl. technical name)? **(1)**  
: \_\_\_\_\_

5. Packing instruction **(1)** : \_\_\_\_\_

6. Maximum net quantity per package **(1)** : \_\_\_\_\_

b) How many outer packagings will be required? **(1)** \_\_\_\_\_

c) How many inner Packagings will be required? **(1)** \_\_\_\_\_

d) What packing group performance standard is required for the packaging? **(1)** : \_\_\_\_\_

**7)** Is the following package acceptable for transport on a cargo aircraft?  
The inner and outer packagings comply with the DGR  
The dangerous goods will not react dangerously with each other and do not require segregation according to DGR table 9.3.A. **(5)**

**OUTER PACKAGING**

UN specification packaging

### INNER PACKAGINGS

#### Item A

Proper Shipping name	:	Hafnium powder, wetted
UN Number	:	UN1326
Net Quantity	:	30kg
Division	:	4.1
Packing Group	:	II
Packing Instructions	:	448

#### Item B

Proper Shipping name	:	Nitrostarch, wetted
UN Number	:	UN1337
Net Quantity	:	11kg
Division	:	4.1
Packing Group	:	I
Packing Instructions	:	451

#### Item C

Proper Shipping name	:	Aluminum powder, coated
UN Number	:	UN1309
Net Quantity	:	30kg
Division	:	4.1
Packing Group	:	III
Packing Instructions	:	448

Calculation and Answer:

- 8)** The following items do not require segregation according to table 9.3.A and are all packed in one limited quantity outer packaging which has 20kg gross weight. The package is properly packed, marked and labels are properly affixed. Is this shipment acceptable for transport on a passenger aircraft? **(5)**

UN3077 Environmentally hazardous substance, solid, n.o.s 14kg  
UN2653 Benzyl iodide 0.3 L  
UN2049 Diethylbenzene 5L

Calculation and answer

**9)** The following items do not require segregation according to table 9.3.A and are all packed in one limited quantity outer packaging which has 10kg gross weight. The package is properly packed, marked and labels are properly affixed. Is this shipment acceptable for transport on a passenger aircraft? **(5)**

UN1950 Aerosols, non-flammable 5kg

UN2653 Benzyl Iodide 0.3 L

UN2049 Diethylbenzene 0.5L

Calculation and answer:

**10)** The following items do not require segregation according to table 9.3.A and are all packed in one limited quantity outer packaging which has 50kg gross weight. The package is properly packed, marked and labels are properly affixed. Is this shipment acceptable for transport on a passenger aircraft? **(5)**

UN2814 Infectious substances affecting humans (Dengue virus culture) 25kg

UN1845 Dry Ice 20kg

Answer:

Explanation:

End