

# EAST AFRICAN SCHOOL OF AVIATION

## FINAL EXAMINATION

## SUBJECT: CLASSIFICATION

**Duration: 2 HRS** 

DATE:

Time: 1100 -1300hrs

INSTRUCTIONS TO ALL CANDIDATES

1. Answer all questions

### Answer the following Questions and indicate the reference:

1.	What are Liquid desensitized explosives?	(3 marks)	
	REF:		
2.	Pathogens are defined as REF:		
3.	What does the following Packing group represent:	(3 marks)	
	Packing group I		
	Packing group II		
	Packing group III		
4.	Division takes precedence over all other divisions. REF:	(2 marks)	
5.	Define Packing group:	(3 marks)	
	REF:		
6.	Division 2.1 takes precedence over Division REF:	(2 marks)	
7.	List the three specific responsibilities of the shipper relative goods.	to the classification of Dangerous (6 marks)	
	REF:	(2 marks)	
8	Water reactive substances is also known as	REF	
0.		(2 marks)	
9.	What is the applicable packing group for a tear gas substance and an Inhalation toxicity of 3mg/L?	( <i>i</i>	
	REF:		
	Answer the following Questions as True or False and indicate	the reference:	
		(10 marks)	
10	. Division 1.1 are very insensitive substances having a mass exp A. True B. False REF:		
11	. Lithium batteries are classified into?		

	A. Class 3							
	B. Class 9							
12.								
	A. Thick sticky liqu				5			
	B. Dangerous wh	ien wet D	. Flammo	able liquids	REF:			
13.	Packing groups a	•						
	A. True	B. False		REF:				
11	The term water re	active refer	r to a fla	mmahla lia	uid2			
14.	The term water-re A. True							
1.5	Class 3 has no sub			KLI				
	A. True							
	Gases of division 2		d in an o	aerosol are	not forbidde	en from	transport?	
	A. True	B. False		REF:				
17.	Substances which					known	as dangerous whe	en wet?
	A. True	B. False		REF:				
10	Class 10 is Organi	a naravida						
10.	Class 10 is Organia A. True	B. False		REE				
19.	Environmentally h							
	A. True							
	Circle the correct	answer						
20			we divisi	005			(2 marks)	
	Class	_ do not ha		ons.		(	(2 marks)	
	Class A. 1,4,5,6	_ do not ha C. 3,7,8,9	9	ons.		(	(2 marks)	
	Class A. 1,4,5,6 B. 2,3,4,5	_ do not ha C. 3,7,8,9 D. 1,2,3,4	9					
	Class A. 1,4,5,6 B. 2,3,4,5 Substances which	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c	9		ansport that			iny other
	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as:	9 danger o	during air tro				iny other
	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substance	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces	9 danger o C. Mi	during air tro scellaneous				iny other
	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces	9 danger o	during air tro scellaneous				iny other
21.	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces	9 danger d C. Mi D. Corrd	during air tro scellaneous osive		is not c	overed in under c	iny other
21.	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substance	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces	9 danger d C. Mi D. Corrd	during air tro scellaneous osive		is not c		iny other
21.	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces	9 danger d C. Mi D. Corrd	during air tro scellaneous osive		is not c	overed in under c	iny other
21. 22.	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces	9 danger d C. Mi D. Corrd	during air tro scellaneous osive		is not c	overed in under c	iny other
21. 22. a)	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo Match the followin	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces	9 danger d C. Mi D. Corrd	during air tro scellaneous osive		is not c	overed in under c	iny other
21. 22. a) b)	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo Match the followin Packing Group I	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces	9 danger d C. Mi D. Corrd	during air tro scellaneous osive		is not c	overed in under c	iny other
21. 22. a) b) c)	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo Match the followin Packing Group I Packing Group II Packing Group II	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces o	9 C. Mi D. Corro group ci	during air tro scellaneous osive riteria for To:	kic substanc	ces: (	overed in under c	iny other
21. 22. a) b) c) i)	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo Match the followin Packing Group I Packing Group I Packing Group II Packing Group II Substances and p	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces on ng Packing s	9 C. Mi D. Corro group ci	during air tro scellaneous osive riteria for To: ing a seriou:	kic substanc	ces: (	overed in under c	iny other
21. 22. a) b) c) i) ii)	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo Match the followin Packing Group I Packing Group I Packing Group II Substances and p Substances and p	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces on ng Packing s preparations preparations	9 C. Mi D. Corro group ci present present	during air tro scellaneous osive riteria for To: ing a serious	xic substanc s toxicity risk evere toxici	ty risk	overed in under c	iny other
21. 22. a) b) c) i) ii)	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo Match the followin Packing Group I Packing Group I Packing Group II Packing Group II Substances and p	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces on ng Packing s preparations preparations	9 C. Mi D. Corro group ci present present	during air tro scellaneous osive riteria for To: ing a serious	xic substanc s toxicity risk evere toxici	ty risk	overed in under c	iny other
21. 22. a) b) c) i) ii)	Class A. 1,4,5,6 B. 2,3,4,5 Substances which Class is classified of A. Other substand B. General cargo Match the followin Packing Group I Packing Group I Packing Group II Substances and p Substances and p	_ do not ha C. 3,7,8,9 D. 1,2,3,4 n present a c as: ces on ng Packing s preparations preparations	9 C. Mi D. Corro group ci present present	during air tro scellaneous osive riteria for To: ing a serious	xic substanc s toxicity risk evere toxici	ty risk	overed in under c	iny other

23. Match the following Definitions with its appropriate Class/Division: (6 marks)

- a) Extremely insensitive articles which do not have a mass explosion hazard
- b) Substance, which present a danger during air transport that is not covered in any other class.
- c) Substances, which in themselves are not necessarily combustible, but may generally cause or contribute to the combustion of other material by yielding oxygen.
- d) Self-reactive substances
- e) A substance that are liable to cause injury or death when inhaled, swallowed or absorbed through the skin
  - i) Division 1.6
  - ii) Division 6.1
  - iii) Class 9
  - iv) Division 4.1
  - v) Division 5.1

REF: \_\_\_\_\_

(20 marks)

- 24. Assign the following substances for Flammable liquids, Toxic and Corrosive substances to their applicable Packing group:
  - a) BP 38°C i) OT 5.1mg/kg FP 16.5°C IT 0.3mg/L b) FP 63°C i) DT 200mg/kg BP 29°C IT 1.9mg/L c) BP 37°C k) IT 3mg/L FP 60°C DT 50mg/kg d) BP 32°C I) OT 150mg/kg DT 1000mg/kg FP 19.4 e) BP 34°C m) DT 950 mg/kg FP 62°C IT 4mg/L f) FP 18.5°C n) IT 3.8mg/L BP 105°C OT 49.5mg/kg g) BP 34.99°C o) DT 35mg/kg FP 22.8°C OT 5mg/kg h) FP 23.2°C p) OT 298mg/kg BP 35.3°C IT 0.29mg/L
- q) OT 60 min EP 58 min
  r) ET 2 hrs. OT 10 days
  s) OT 2 weeks ET 55 min
  t) ET 3 hrs OT 35 min REF: \_\_\_\_\_\_

(4 marks)

- REF: \_\_\_\_\_ 25. Match the following:
  - a) Packing group I
  - b) Packing group II
  - c) Packing group III
- Substances that cause irreversible skin damage of intact skin tissue with observation period of up to 14 days starting after the exposure time of more than 3 minutes but not more than 60 minutes

REF: \_\_\_\_\_

- II) Substances that cause irreversible damage of intact skin tissue within an observation period of up to 60 minutes starting after the exposure time of 3 minutes or less
- III) Substances that cause irreversible damage of intact skin tissue within an observation period of up to 14 days staring after the exposure time of more than 60 minutes but not more than 4 hours.

REF: \_\_\_\_\_

#### Answer the following Questions and indicate the reference: (18 marks)

26. Substances which are dissolved or suspended in water or other liquid substances to form a homogeneous liquid mixture, to suppress their explosive properties are known as:

\_\_\_\_\_\_ REF: \_\_\_\_\_\_

- 27. Gas, which when mixed with air in certain proportions, form a flammable mixture belongs to which Class/Division? \_\_\_\_\_\_ REF: \_\_\_\_\_
- 29. Dangerous goods are divided into \_\_\_\_\_ classes? REF: \_\_\_\_\_
- 31. What packing group would be assigned to a tear gas substance with an oral toxicity of LC50 150mg/kg and an inhalation toxicity of LC50 2.8mg/L? \_\_\_\_\_ REF: \_\_\_\_\_
- 32. Indicate whether the following articles or substances are compatible with each other:
  - a) Division 5.2 and Class 9 \_\_\_\_\_
  - b) Class 8 and Division 2.1 \_\_\_\_\_
  - c) Class 8 and Division 5.1 \_\_\_\_\_
  - d) Class 8 and Division 4.3 \_\_\_\_\_
  - e) Division 2.3 and Division 4.1-

REF:\_\_\_\_\_

(12 marks)

33. Indicate which Class or Division does the following articles or substances of Dangerous Goods belong to:

SUBSTANCE	CLASS/DIVISION	<b>UN NUMBER</b>
a) London purple		
b) Mercuric nitrate		
c) Dry ice		
d) Benzoyl chloride		
e) Furan		

REF: \_\_\_\_\_

(6 marks)

- 34. Determine the Primary hazard of the following Class/Division:
  - a) Class 3 PG II and Division 6.1 (d) PG I \_\_\_\_\_
  - b) Division 4.3 PG I and Class 8(s) PG II \_\_\_\_\_
  - c) Division 4.2 PG III and Division 6.1 -
  - d) Class 8 PG I (s) and Class 3 PG III -
  - e) Division 5.1 PG III and Division 4.2 -

REF:	