### MERCHANT MARINE ACADEMY OF MACEDONIA SCHOOL OF ENGINEERS

Academic year: 2012-2013 Semester: D Instructors' names: Papadopoulou A- Ploumistou A STUDENT'S FULL NAME: **Exam period:** September **Duration:** 2 hrs

А.Г.М:

### 1. Fill in the gaps with the right word from the list. (10 points)

crankcase, pressure, drain, led, filtered, gudgeon, screw, in, through, speed

The oil is taken from the \_\_\_\_\_(1)tank usually underneath the engine by a \_\_\_\_\_(2) type pump. It is cooled, \_\_\_\_\_(3)and supplied to the engine via the oil inlet pipe at a \_\_\_\_\_(4) of about 4 bar. On a medium \_\_\_\_\_(5)engine the oil is supplied \_\_\_\_\_\_(6)drillings in the engine frame to the crankshaft main bearings. Drillings \_\_\_\_\_\_(7)the crankshaft then take the oil to the crankpin bearing. The oil is then \_\_\_\_\_\_(8)up the connecting rod to the piston or \_\_\_\_\_\_(9)pin and from there to the piston cooling before returning to the \_\_\_\_\_\_(10).

### 2. Choose the correct (15 points)

- 1. The element which causes oxidation to the engine is
- a) silicon b) carbon c) sulphur
- 2. Thick particles sink down in the
- a) service tank b) settling tank c)buffer tank
- 3. The fuel needs heating when it is close to its
- a) flash point b) pour point c) injection point
- 4. Scuffing is
- a) Dust b) Soot c) Scraping
- 5. Change in the bearing geometry
- a) Will obstruct the oil film formation b) Will cause fouling
- c) Will trigger an alarm in the system
- 6. Fuel consists mainly of carbon and
- a) Helium b) Lithium c) Hydrogen
- 7. The governor
- a) Injects the fuel b) Controls the amount of fuel injected to the engine
- c) Operates the fuel pumps

8. VIT is

a) Various included tuning b) Variable injection tolerance c) Variable injection timing

9. The VIT rack is connected to the:

a) governor b) turbocharger c) sump tank

- 10. The plunger has a:
- a) flange b) insulation band c) helix

# **3.** Turn the following sentence into the Passive voice.(10 points)

- a) The fuel vapors produce a flash A flash.....
- b) We store the fuel in the bunkers The fuel .....
- c) That hospital doesn't treat patients very well Patients.....
- d) He bought a new car last month. A new car....
- e) We will post the letter tomorrow. The letter.....

# 4. Complete the sentences in passive voices with the verbs in brackets (10 points)

Letters .....by the postman at 8 every day. (deliver)

- This bag .....in the bus yesterday. (find)
- The dress .....in hot water. (cannot wash)
- Bags .....in the cloakroom. (must leave)
- .....your motorbike .....yet? (repair)

The message ......tomorrow. (send)

These offices .....now. (clean)

This report .....in time if you didn't help me. (not finish)

Why .....? (turn on)

This building .....since the 1930's. (not reconstruct)

### 5. Complete the sentences with WHO WHICH or WHOSE (10 points)

- a) The woman \_\_\_\_\_ lives next door is a dentist
- b) The hotel \_\_\_\_\_\_caught fire has been rebuilt
- c) She has a job \_\_\_\_\_most people would hate
- d) Tony works for a company\_\_\_\_\_ makes fridges
- e) My friend Jack \_\_\_\_\_\_ parents live in Glasgow, invited me to spend Christmas in
- Scotland
- f) He is the kind of person \_\_\_\_\_loves an argument
- g) What was the name of your friend \_\_\_\_\_\_tent we borrowed?
- h) You should choose the clothes \_\_\_\_\_\_suit your personality
- i) I don't know the people\_\_\_\_\_ live there
- j) My bike, \_\_\_\_\_\_I had left at the gate, had disappeared

## 6. Match the synonym words from column A with column B(10 points)

| Purpose     | Check     |
|-------------|-----------|
| Excessive   | Intention |
| Condition   | Gather    |
| Eventually  | State     |
| Consequence | Measure   |
| Contaminate | Finally   |
| Accumulate  | Pollute   |
| Calibrate   | Result    |
| Examine     | Withdraw  |
| Remove      | extreme   |

# 7. Answer ONE of the following (15 points)

### 1. Name the parts of the fuel system and describe its operation

2. Name the properties of the fuel oil

8. Write a report to the Superintendent of your company explaining and describing an incident concerning an unpredictable damage that occured and the repairs you had to make to take control of the situation or an accident that happened to a crew member and the action taken. (100-150 words).(20 points)