

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF GEOGRAPHY**

FIRST SEMESTER 2013/2014 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: MET 313 (2 Units)

COURSE TITLE: Observational Methods and Analysis in Meteorology.

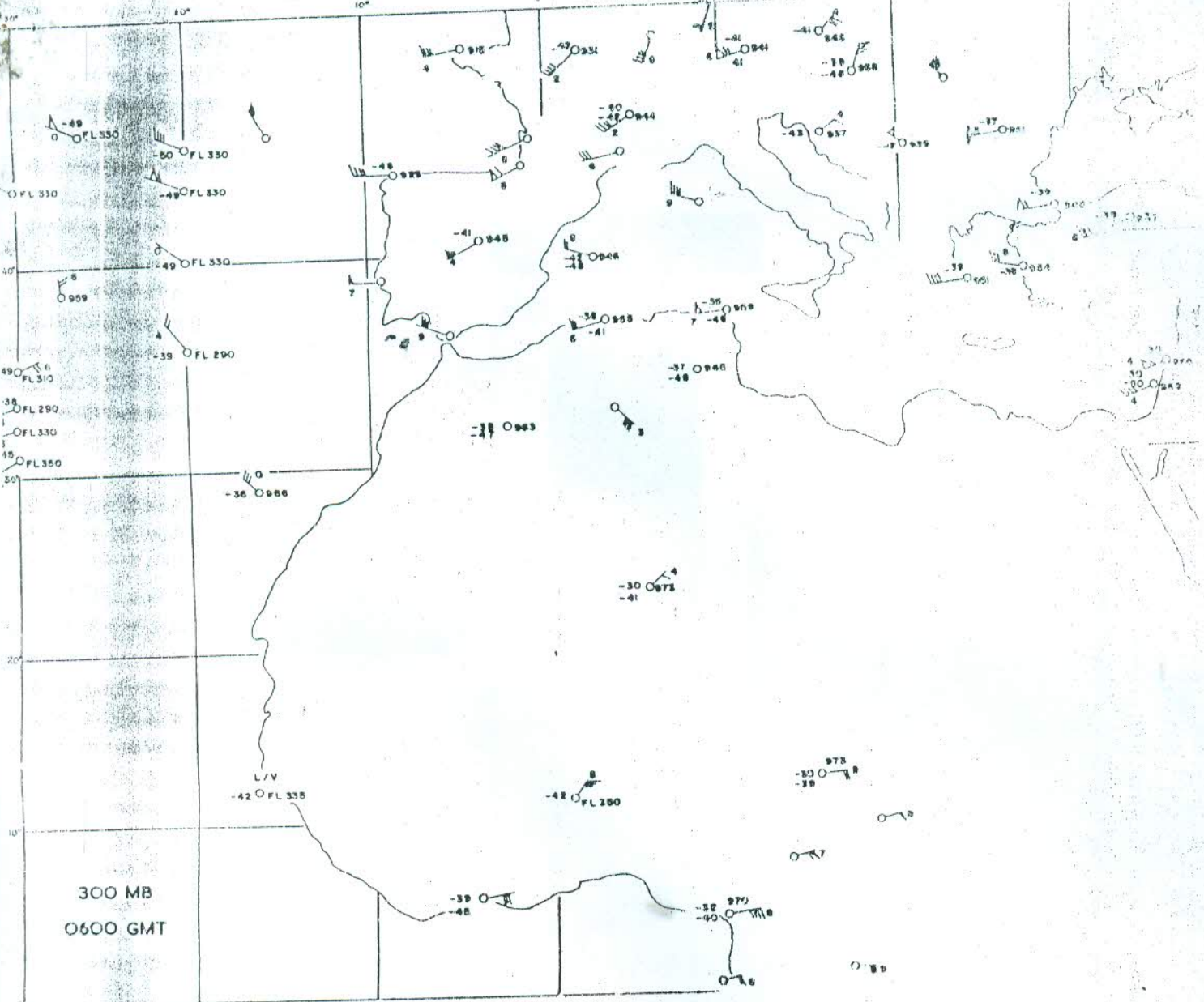
INSTRUCTIONS: Answer question 1 and any other Two questions

TIME ALLOWED: 2hours 30 minutes

1. (a) Explain briefly the various types of charts in meteorological analysis
(b) Analyse the chart supplied and discuss the basic features from the chart.
(c) Prepare a station model for a surface station and an upper level station. Explain in detail each term in the model.
2. Enumerate the stages involved in Meteorological Observations and identify its relevance to Analysis of severe weather events in the tropics
3. Distinguish an air mass from a front and explain in detail the various types of fronts.
4. This message is a terminal aerodrome forecast for Friday 4th July, 2014. The wind speed is estimated as 40 knots by an observer stationed at the aerodrome weather station. The wind direction is 340^o. It was observed that the cloud is scattered with cumulus cloud that has its base 120 feet from the ground. The air temperature was found to have improved over the last three hours by 2^o C a condition that brings a severe weather in form of squall to all the areas east of the observer.
 - (i) Code the message relayed above.
5. (a) Discuss briefly three types of weather reports.

Decode the TAF report for Heca

11402 11066 32310 10153 20019 39872 49962 50112 69911 74950TORNADO
BKN011 FEW021CB BECMG 3020/3022 14003KT CAVOK=



300 MB
0600 GMT