# Roland-Story Natural Resources Class
## Meteorology Unit
## Chapter 12 Study Guide

Name _____

1. What is the mission of the National Weather Service?

2. List the three steps involved in providing weather forecasts.

3. What is meant by weather analysis?

4. What information is provided by a surface weather map?

5. Why is the name 'numerical weather forecasting' somewhat misleading?

6. Briefly describe the basis of numerical weather predictions.




7. How are prognostic charts different from synoptic weather maps?




8. What do computer generated numerical models try to predict?




9. What is ensemble forecasting?




10. What additional information does an ensemble forecast provide over a traditional numerical weather prediction?

11. What method of forecasting is based on pattern recognition?

12. What term is applied to the very short range forecasting technique that relies heavily on weather radar and satellites?

13. When forecasters predict the weather based on average weather statistics accumulated over many years, it is called?

14. Describe the statistical approach called the 'analog method'. What are its drawbacks?

15. If it is snowing today, what could be predicted for tomorrow if persistence forecasting were being used?

16. What type of weather is typically forecast using now-casting techniques?

17. Which upper-level map is most effective for observing the polar jet stream in winter?

18. During winter, if the jet stream is considerably south of your location, will the temperatures likely be warmer or colder than normal?

19. What is a jet streak?

20. What are two pieces of information that forecasters can gain from 850-mb maps?

21. What elements are predicted in a long-range (monthly) weather chart?

22. Give an example of why the percent of correct forecasts is not always a good measure of forecasting skill.

23. How do satellites help identify clouds that are most likely to produce precipitation?

24. What information is provided by water-vapor images?

25. What advantages do geostationary satellites have over polar satellites? Name one disadvantage.

26. Define the following terms by using your book and/or the web site at
www.rsffa.com, go to Meteorology link and play the hangman game

a. Analog method –

b. Climatological forecasting –

c. Automated surface observing system –

d. Ensemble forecasting –

e. Geostationary satellite –

f. isotachs –

g. jet streaks --

h. model output statistics –

i. national weather service –

j. nowcasting –

k. numerical weather prediction –

l. persistence forecasts –

m. polar satellite–

n. prongs –

o. synoptic weather map –

p. trend forecasting –

q. weather analysis –

r. weather forecast –

s. wind profilers –

t. climatic data --

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