**Worksheet for Lec 7 Chapter 31 (31.1 & 31.2)**

Q1a. What is a plant hormone?

Q1b. Tell the story of the discovery of auxin.

Q1c. How does auxin cause phototropism (include details, draw a diagram if it helps)?

Q2. What does gibberellic acid do in a germinating cereal seed?

Q3. What are the 2 aspects of plant biology abscisic acid is involved in? How does it affect each thing?

Q4. Ethylene. What is unusual about this hormone. What is it involved in (8 things)?

Q5a. What 2 hormones are involved leaf abscission What is the role of each?

Q5b. What colors are chlorophyll, carotenoids and anthocyanins and what changes happen to them to produce changes in leaf color in the fall?

Q6. What does photomorphogenesis mean?

Q7 What is phototropism and which wavelengths of light (i.e. colors) are involved?

Q8. What processes involve blue light photoreceptors?

Q9a. What photoreceptor is sensitive to red light? What kinds of responses involve this receptor (5 things)?

Q9b. Explain how the different kinds of red light change this protein.

Q10a. What does circadian rhythm mean?

Q10b. How does *Phaseolus vulgaris* change with the diurnal cycle?

Q11a. What is the difference between long-day and short-day plants?

Q11b. What are the 2 factors (one internal and one external) than interact and stimulate flowering at a particular time in the season?

Q11c. In addition some plants also need a certain temperature exposure to flower in the spring/summer. What does winter wheat need?

**My glossary:**