Unit 3 Summary Form (USF)
for *optional* note-taking – print this for your use

The use of this form is *optional*, I provide it just as a study aid. ***You may find it handy to print this form and use it to take hand-written notes as you read the material in Chapter 3 of the course workbook.*** **This form is not submitted or graded and it plays no role in determining your course grade, but completing this may help you gather and better understand the things you need to know in order to do the repeatable online learning exercises.** Using this form can also help you get the most out of CSC-200!

NOTE: To completely fill out this form you need to have read each project in each unit even though you are required to only actually do some of them. This is because important background information is included in each project description that is not duplicated elsewhere.

1. Explain specifically the **most significant difference** between the way analog sound recording captures and reproduces sound and the way this is accomplished by digital recording of sound:

2. Describe **two important advantages** that digital recording of sound has over analog recording of sound and why these advantages are possible:

3. You're being called upon to explain to a 12 year old child how a digital camera takes a still picture and a computer makes it visible. Write here a simple explanation of about 100 words based on what you learned about this in Unit 3 of the course:

4. A common modern laptop screen size is 15.6" diagonal measures, with 1366 pixels by 768 pixels. Assume that you have a laptop with this screen size and complete the following sentences about it and the digital still images viewed on it:

a) The **aspect ratio** of this laptop screen is…

Review pages **102-103** for hints on developing your answers for Question 4!

b) To completely fill this screen with a digital image would require taking the picture at a **megapixel size** of…

c) A digital image viewed on this screen would be stored as a file containing **information that captured**…

5. Identify the three most common file types used now to store digital still images and compare the advantages and disadvantages of each:

6. An artistically talented friend of yours has invented and drawn a "family" of cute and appealing cartoon characters and created an animated video featuring them. She asks you what form of video file and/or distribution method you would recommend so that viewers could see the video but would be thwarted in trying to copy and re-distribute it. In 100 words or so concisely explain the modern options and choices available to your friend to meet her needs and the advantages, disadvantages, and any limitations on the audience that each choice is likely to encounter:

7. Computers can assist people with handicaps in multiple ways. Both the hard of hearing and the visually challenged can be aided in learning by relatively inexpensive software now available. Let's suppose that a school counselor who works with students affected in one or the other of these ways asks you for your advice on what might be possible in her PC and Mac environment. In 100 or so words state the concise but detailed advice you would give this person:

8. According to computer game expert Mark Overmars (see download link in Project 3.8) many "genres" of computer games exist. Suppose you are asked by a neighbor—the parent of two young children (brother and sister, ages 11 and 10)—to explain to her about computer games in general and what kind of games you would recommend for her to tell relatives to consider for birthday gifts for her children. Write this advice in about 100 words, providing a quick overview of all of the game genres that exist and the ones that your neighbor would probablyfind most suitable in this case and why, based on what Overmars states:

Note: You need to have read the paper on game genres by Mark Overmars, accessible at the link for Project 3.5 on page 132, in order to answer this question! If you try to wing it on this question without reading that article you will crash and burn on this response even if you are an ardent computer game player!