FROM...
http://www.solidworks.com/sw/education/cswa-academic-exam.htm

CSWA - Academic Exam

Certified SolidWorks Associate - Academic (CSWA - Academic) certification is intended for a student with a minimum of six to nine months of SolidWorks experience and basic knowledge of engineering and fundamentals and practices.

The CSWA - Academic Exam is provided in the following languages: English, French, German, Italian, Korean, Spanish, Chinese S, Chinese T, Japanese, and Brazilian Portuguese.

Who should take the CSWA - Academic Exam

CSWA - Academic certification is intended for a student with a minimum of six to nine months of SolidWorks experience and basic knowledge of engineering fundamentals and practices. SolidWorks recommends that applicants review the online tutorials on Parts, Assemblies, and Drawings as a prerequisite, and have at least 45 hours of classroom time learning SolidWorks or using SolidWorks with basic engineering design principles and practices.

Organization of the CSWA - Academic Exam

The CSWA - Academic Exam is divided into five major categories. There are two questions in both the "Basic Theory and Drawing Theory" and "Advanced Modeling Theory and Analysis" categories, and one question in each of the "Part Modeling," "Advanced Part Modeling and Analysis," and "Assembly Modeling" categories.

Questions in the exam are provided randomly. The questions refer to an in-depth, illustrated, dimensioned model. The minimum passing grade is 70 out of 100 points.

The following information provides general guidelines for content likely to be included on the exam. However, other related topics also may appear on any specific delivery of the exam.

1. **Basic Theory and Drawing Theory (2 questions, 10 points total)**
    a. Understand and apply basic concepts in SolidWorks
    b. Recognize 3D modeling techniques
    c. Calculate the material, measurements, mass properties, and section properties
    d. Identify the function and elements of a part and an assembly FeatureManager® design tree
    e. Determine the default Sketch Entities displayed in the Sketch toolbar
    f. Identify the default Sketch Entities displayed in the Sketch toolbar
    g. Identify the default Sketch tools displayed in the Sketch toolbar: Entities
    h. Demonstrate knowledge of SolidWorks file formats for input and export
    i. Use SolidWorks Help topics

j. Understand how to create a drawing from a part or an assembly
k. Determine the procedures for inserting a drawing view type and recognizing all drawing view types from the FeatureManager design tree
l. Specify document properties

2. **Part Modeling (1 question, 30 points)**
    a. Read and understand an engineering drawing document
    b. Identify the reference plane and part origin, and apply design intent
    c. Apply 2D and 3D Sketches
    d. Build a part from a detailed, dimensioned illustration
    e. Apply extruded boss/base, extruded cut, fillet, and chamfer features
    f. Calculate the mass, volume, and material properties for the created model
    g. Apply geometric relations and dimensions
3. **Assembly Modeling (1 question, 30 points)**
    a. Specify document properties
    b. Identify the components to construct the assembly from a detailed illustration
    c. Determine the first fixed component and position
    d. Build a bottom-up assembly with standard mates from a detailed illustration
    e. Calculate the assembly's center of mass
4. **Advanced Part Modeling and Analysis (1 question, 20 points)**
    a. Interpret engineering terminology
    b. Build an advanced part from a detailed, dimensioned illustration
    c. Edit 2D Sketches and features
    d. Apply revolved boss/base, revolved cut, linear, and circular pattern features
    e. Apply geometric relations and dimensions
5. **Advanced Part Modeling and Analysis (1 question, 20 points)**
    a. Demonstrate an understanding of engineering terminology as it refers to stress analysis
    b. Apply SolidWorks SimulationXpress to a simple part

For tips on taking the CSWA - Academic Exam, please visit Tips for taking the CSWA-Academic Exam section on our web site.

CSWA - Academic Certificate

After a student passes the CSWA - Academic Exam and signs the required agreements, the SolidWorks Academic Certification Provider will print out the CSWA - Academic Certificate, identifying the candidate's school, CSWA -Academic Career Certification ID and valid certification date. A CSWA -Academic Certificate also is available from the SolidWorks Virtual Testing Center: www.virtualtester.com/solidworks.