



With the following changes, ASA's *General Mechanic Test Guide 2024* provides complete preparation for the FAA General Knowledge Exam. This test continues to reference the *Airman Knowledge Testing Supplement for Aviation Maintenance Technician (FAA-CT-8080-4G)*.

About the Test Changes

The FAA exams are “closed tests,” which means the database of questions used on the exam is not available to the public. However, the FAA identifies subjects that have been removed or added to a test, as well as pertinent information to ensure training and testing remain correlated, which, in turn, promotes a reliable certification system.

The questions and answer choices in this book provide a comprehensive representation of FAA questions, derived from history and experience with the airman testing process. You might see similar, though not exactly the same, questions on your official FAA exam. On the test, answer choices may be rearranged from the A, B, C order you see in this book. Therefore, be careful to fully understand the intent of each question and corresponding answer while studying, rather than memorize the A, B, C answer. While you may be asked a question that has unfamiliar wording, studying and understanding the information in this book and the associated reference documents will give you the tools to answer all types of questions with confidence. We invite your feedback. After you take your official FAA exam, let us know how you did. Were you prepared? Did the ASA products meet your needs and exceed your expectations? We want to continue to improve these products to ensure applicants are prepared, and become safe aviation maintenance technicians. Send feedback to: cfi@asa2fly.com

Page Number	Question Number	Correct Answer	Explanation
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These 14 questions, previously part of the Airframe Mechanic curriculum, have moved to the General Mechanic curriculum on Cleaning and Corrosion Control.

64	8599	C	<p>A new question is added to read:</p> <p>8599. If masking tape is applied to an aircraft, such as for trim spraying, and is left on for several days and/or exposed to heat, it is likely that the tape will</p> <p>A—not seal out the finishing material if the delay or heating occurs before spraying. B—be weakened in its ability to adhere to the surface. C—cure to the finish and be very difficult to remove.</p> <p><i>Masking tape should be removed from a surface as soon as the finish has dried to the extent that it is no longer tacky. If the tape is left on the surface too long, it will cure to the finish and be extremely difficult to remove. (AM.I.G.K19) — FAA-H-8083-30</i></p>
64	8600	B	<p>A new question is added to read:</p> <p>8600. What is used to slow the drying time of some finishes and to prevent blush?</p> <p>A—Reducer. B—Retarder. C—Rejuvenator.</p> <p><i>Retarder is a special type of thinner that dries slowly. It is used in dope and lacquer to slow its drying time. The slower drying time prevents blushing and provides a smoother finish. (AM.I.G.K18) — FAA-H-8083-30</i></p>

Page Number	Question Number	Correct Answer	Explanation
64	8601	A	<p>A new question is added to read:</p> <p>8601. Which type of coating typically includes phosphoric acid as one of its components at the time of application?</p> <p>A—Wash primer. B—Epoxy primer. C—Zinc chromate primer.</p> <p><i>Wash primer is a two-part primer that contains phosphoric acid to etch the surface of the metal to improve the bond between the surface and the topcoats. (AM.I.B.K15) — FAA-H-8083-30</i></p>
64	8602	C	<p>A new question is added to read:</p> <p>8602. Which properly applied finish topcoat is the most durable and chemical resistant?</p> <p>A—Synthetic enamel. B—Acrylic lacquer. C—Polyurethane.</p> <p><i>Polyurethane is the most durable of all of the finishes that are used for modern aircraft. It is noted for its chemical resistance and for its famous “wet look” that is caused by its slow flow-out time. (AM.I.G.K16) — FAA-H-8083-30</i></p>
64	8603	C	<p>A new question is added to read:</p> <p>8603. Aluminum pigment in dope is used primarily to</p> <p>A—provide a silver color. B—aid in sealing out moisture from the fabric. C—reflect ultraviolet from the fabric.</p> <p><i>Aluminum-pigmented dope contains tiny flakes of aluminum metal that spread out to form a solid, lightproof film over the coats of clear dope. The aluminum dope prevents the ultraviolet rays from the sun damaging the fabric and the coats of clear dope. (AM.I.G.K14) — FAA-H-8083-30</i></p>
64	8604	B	<p>A new question is added to read:</p> <p>8604. A correct use for acetone is to</p> <p>A—thin zinc chromate primer. B—remove grease from fabric. C—thin dope.</p> <p><i>Acetone is a fast-evaporating dope solvent that is suitable for removing grease from fabric prior to doping. It is also used for cleaning paint spray guns and as an ingredient in paint and varnish removers. (AM.I.G.K11) — FAA-H-8083-30</i></p>
64	8605	B	<p>A new question is added to read:</p> <p>8605. Which of the following is a hazard associated with sanding on fabric covered surfaces during the finishing process?</p> <p>A—Overheating of the fabric/finish, especially with the use of power tools. B—Static electricity buildup. C—Embedding of particles in the finish.</p> <p><i>When dry-sanding a fabric-covered surface, be sure to electrically ground it to a cold water pipe or some other good electrical ground. Rubbing the sandpaper over the surface will generate enough static electricity that a spark could be caused to jump and ignite the highly flammable fumes inside the structure. (AM.I.G.K17) — FAA-H-8083-30</i></p>

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64	8606	A	<p>A new question is added to read:</p> <p>8606. When the humidity is low, what is likely to occur if unhydrated wash primer is applied to unpainted aluminum and then, about 30 to 40 minutes later, a finish topcoat is applied?</p> <p>A—Corrosion. B—A glossy, blush-free finish. C—A dull finish due to the topcoat “sinking in” to primer that is still too soft.</p> <p><i>Wash primer requires moisture to convert the phosphoric acid into a protective film on the surface of the metal. If unhydrated primer, primer without enough water to effect the cure, is applied, and within 30 to 40 minutes it is covered with a dense film of a finish such as a polyurethane, there is a good probability that filiform corrosion will form under the polyurethane. (AM.I.G.K14) — FAA-H-8083-30</i></p>
64	8607	B	<p>A new question is added to read:</p> <p>8607. Fungicidal dopes are used in aircraft finishing as the</p> <p>A—first, full-bodied, brushed-on coat to prevent fungus damage. B—first coat to prevent fabric rotting and are applied thin enough to saturate the fabric. C—final, full-bodied, brushed-on coat to reduce blushing.</p> <p><i>Fungicidal dope is used for the first coat applied to cotton or linen aircraft fabric. It is thinned enough to allow it to thoroughly saturate both sides of the fabric. The purpose of fungicidal dope is to retard the formation of fungus and mold, which would cause the fabric to rot. (AM.I.G.K15) — FAA-H-8083-30</i></p>
64	8608	C	<p>A new question is added to read:</p> <p>8608. Before applying a protective coating to any unpainted clean aluminum, you should</p> <p>A—wipe the surface with methyl ethyl ketone (MEK). B—remove any contaminants from the surface with a paper towel. C—avoid touching the surface with bare hands.</p> <p><i>It is important when preparing a bare metal surface for painting that, after it has been cleaned, you do not touch it with your bare hands. There is enough oil on the surface of your skin that it can contaminate the surface enough that the finish will not adhere. (AM.I.G.K17) — FAA-H-8083-30</i></p>
64	8609	B	<p>A new question is added to read:</p> <p>8609. When humidity is low, what is likely to occur if hydrated wash primer is applied to unpainted aluminum and then, 30 to 40 minutes later, a finish top coat is applied?</p> <p>A—Corrosion. B—A glossy, blush-free finish. C—A dull finish due to the topcoat “sinking in” to primer that is still too soft.</p> <p><i>Hydrated wash primer is a wash primer that has enough water added to properly convert the phosphoric acid to a phosphate film on the metal. When this primer is applied to the surface, it is ready for a topcoat after it has been allowed to cure for at least 30 minutes. It should produce a glossy, blush-free finish. (AM.I.G.K18) — FAA-H-8083-30</i></p>
64	8610	A	<p>A new question is added to read:</p> <p>8610. What is the usual cause of runs and sags in aircraft finishes?</p> <p>A—Too much material applied in one coat. B—Material is being applied too fast. C—Low atmospheric humidity.</p> <p><i>Runs and sags in the surface of paint that has been sprayed are normally caused by applying too much material in one coat. (AM.I.G.K16) — FAA-H-8083-30</i></p>

Page Number	Question Number	Correct Answer	Explanation
64	8611	B	<p>A new question is added to read:</p> <p>8611. Which defect in aircraft finishes may be caused by adverse humidity, drafts, or sudden changes in temperature?</p> <p>A—Orange peel. B—Blushing. C—Pinholes.</p> <p><i>Blushing is a condition in dope or lacquer finishes in which moisture from the atmosphere condenses on the surface and causes some of the cellulose to precipitate from the finish. Blushing leaves a porous, dull, and weak finish. Blushing may be caused by the temperature being too low, the humidity being too high, or by drafts or sudden changes in temperature. (AM.I.G.K18) — FAA-H-8083-30</i></p>
64	8612	C	<p>A new question is added to read:</p> <p>8612. Which statement is true regarding paint system compatibility?</p> <p>A—Old-type zinc chromate primer may not be used directly for touchup of bare metal surfaces. B—Acrylic nitrocellulose lacquers may be used over old nitrocellulose finishes. C—Old wash primer coats may be overcoated directly with epoxy finishes.</p> <p><i>Old wash primer coats may be overcoated directly with epoxy finishes. A second coat of wash primer, however, must be applied to the surface if an acrylic finish is to be applied. (AM.I.G.K15) — FAA-H-8083-30</i></p>

The 16 typical oral questions below have moved from the Airframe Mechanic curriculum to the General Mechanic curriculum on Cleaning and Corrosion Control.

117			<p>New questions are added to read:</p> <p>19. Why are some portions of the structure of an aircraft dope proofed before they are covered with fabric?</p> <p><i>Dope proofing keeps the fabric from sticking to the structure when the first coat of dope is applied. The fabric normally sags enough to touch the structure before it begins to pull taut.</i></p> <p>20. What is done to cotton and linen fabric to protect it from mildew?</p> <p><i>The first coat of dope that is used on cotton and linen fabric has a mildewcide mixed in it.</i></p> <p>21. How is polyester synthetic fabric shrunk on an aircraft structure?</p> <p><i>It is shrunk with heat from an iron or from a heated blower.</i></p> <p>22. Why should wooden wing spars be finished with a transparent varnish?</p> <p><i>The transparent finish allows any decay or rot that develops in the wood to be detected.</i></p> <p>23. What is used as a protective finish for the inside of steel tubing?</p> <p><i>Hot linseed oil.</i></p> <p>24. What happens to an enamel finish when paint remover is applied to it?</p> <p><i>The enamel softens and swells so that it pulls away from the surface of the metal.</i></p> <p>25. What should be done to an aircraft surface that is covered with paint remover to give the remover the maximum amount of time to soak into the old finish?</p> <p><i>The surface should be covered with a piece of polyethylene sheeting, such as a paint drop cloth. This will keep the solvents from evaporating before they have time to penetrate the paint film.</i></p> <p>26. When mixing epoxy paint, should the converter be added to the resin or the resin to the converter?</p> <p><i>The converter should always be added to the resin, never the resin to the converter.</i></p>
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	27.		What is the general reason for runs and sags in a finish that is being sprayed onto a flat surface? <i>Too much paint is being applied. The film is too thick.</i>
	28.		What can be done to remedy blushing that has formed on a doped surface that has just been sprayed? <i>Spray a very light mist coat of a mixture of one part retarder to two parts of thinner over the blushed area. Allow it to dry and spray on another coat. If this does not remove the blush, the blushed dope will have to be sanded off and new dope applied.</i>
	29.		What safety precaution must be observed when sweeping a paint room that has dried dope or lacquer overspray on the floor? <i>The floor must be wet down with water before it is swept. Static electricity from dry sweeping can cause a fire.</i>
	30.		What will happen if dope is sprayed over an enameled surface? <i>The thinner in the dope will penetrate the enamel surface and cause it to swell.</i>
	31.		What are three types of primer that may be used when painting an aircraft? <i>Zinc chromate primer, wash primer, and epoxy primer.</i>
	32.		How is the finish removed from a fiberglass aircraft component that is being repaired? <i>The finish must be sanded off. Paint remover can soften the resin that forms the component.</i>
	33.		What are the two basic types of dope that are used on fabric-covered aircraft? <i>Nitrate dope and butyrate (CAB) dope.</i>
	34.		What kind of dope is used on polyester synthetic fabric that has been heat-shrunk on an aircraft structure? <i>Nontautening butyrate dope.</i>

The 10 typical practical projects below have moved from the Airframe Mechanic curriculum to the General Mechanic curriculum on Cleaning and Corrosion Control.

118

New projects are added to read:

13. Mix dope and the correct thinner to get the proper viscosity for spraying. Demonstrate to the examiner the correct way to spray the dope on an aircraft surface.
14. Determine whether the dope that is on a piece of fabric-covered structure is nitrate or butyrate.
15. Demonstrate to the examiner the correct way of applying the first coat of dope to the fabric that is being installed on an aircraft structure.
16. Demonstrate to the examiner the correct way of dry sanding a fabric-covered aircraft wing.
17. Demonstrate to the examiner the correct way to spray a surface with a polyurethane enamel.
18. Identify the correct thinner to use with a list of finishing materials that is furnished by the examiner.

Page Number	Question Number	Correct Answer	Explanation
			19. Properly adjust the pressure of the air on a spray gun and pressure pot for spraying aircraft dope.
			20. Explain to the examiner the correct size and location for the identification numbers that are required on an aircraft.
			21. Properly remove the finish from a piece of fiberglass-reinforced aircraft structure so the structure can be repaired.
			22. Explain to the examiner the reason for using aluminum-pigmented dope on a fabric-covered aircraft structure. Explain why it is important to not use too much aluminum dope.