**ERAU Final Exam – Study Guide**

**Question #1** (2 points)

Why do we have to do maintenance?

**Your answer:**

Provides assurance of flight safety, reliability, and air worthiness **Correct**

**Question #2** (2 points)

What is the most realistic constraint that impacts the role of an engineer?

**Your answer:**

financial resources **Correct**

**Question #3** (2 points)

What are the two types of Maintenance?

**Your answer:**

scheduled and unscheduled **Correct**

**Question #4** (2 points)

Scheduled maintenance and preventive maintenance are the same.

**Your answer:**

True **Correct**

**Question #5** (2 points)

Preventive Maintenance is usually performed at:

**Your answer:**

regular intervals **Correct**

**Question #6** (2 points)

No amount of maintenance can increase system reliability any higher than its designed-in inherent level.

**Your answer:**

True **Correct**

**Question #7** (2 points)

The pilot in command (PIC) can defer maintenance per the aircraft's MEL (minimum equipment list).

**Your answer:**

True **Correct**

**Question #8** (2 points)

What are the two basic approaches to creating a maintenance program?

**Your answer:**

process-oriented approach and the task-oriented approach **Correct**

**Question #9** (2 points)

Hard Time requires that the item:

**Your answer:**

be removed, completely overhauled, partially overhauled or discarded **Correct**

**Question #10** (2 points)

On-condition is a failure preventive process that requires the item be periodically inspected or tested to determine if the item can continue in service.

**Your answer:**

True **Correct**

**Question #11** (2 points)

Three sources of structural deterioration are:

**Your answer:**

environmental deterioration, accidental damage, and fatigue damage **Correct**

**Question #12** (2 points)

MTBF refers to:

**Your answer:**

Mean Time Between Failure **Correct**

**Question #13** (2 points)

Aircraft Operating conditions will often require that an operator change the basic maintenance program to better address the organizational needs.

**Your answer:**

True **Correct**

**Question #14** (2 points)

Inherent reliability is the level of reliability the item will exhibit when it is protected by preventive maintenance and adequate servicing and lubrication.

**Your answer:**

True **Correct**

**Question #15** (2 points)

Verification means that a written test or procedure has been performed by an appropriately trained maintenance person, and the procedure, as written, is understandable, adequate, and, most importantly, proven to accomplish the intended purpose.

**Your answer:**

False **Correct**

**Question #16** (2 points)

Validation means that a test or procedure has been written and that, when read and understood by a knowledgeable person, is deemed to be correct, adequate, and acceptable for the purpose for which it is intended.

**Your answer:**

False **Correct**

**Question #17** (2 points)

What is an operational check?

**Your answer:**

A task to determine if an item is fulfilling its intended purpose **Correct**

**Question #18** (2 points)

What is a goal of the maintenance department?

**Your answer:**

To deliver airworthy vehicles to the flight department in time to meet the flight schedule. **Correct**

**Question #19** (2 points)

What are the Three Certifications for full certification of an airplane?

**Your answer:**

Type Certificate Production Certificate Airworthiness Certificate Type Certificate Production Certificate Airworthiness Certificate Type Certificate Production Certificate Airworthiness Certificate Type Certificate, Production Certificate and Airworthiness Certificate **Correct**

**Question #20** (2 points)

FAA may cancel, suspend, supersede, or revoke the Production Certificate (PC) for just cause at any time

**Your answer:**

True **Correct**

**Question #21** (2 points)

This certificate is awarded after the aircraft has passed all inspections and a successful flight test – just prior to delivery to the customer.

**Your answer:**

Airworthiness Certificate **Correct**

**Question #22** (2 points)

FAA authorization is required to operate any type of aerial vehicle in U.S. airspace

**Your answer:**

True **Correct**

**Question #23** (2 points)

Once the customer accepts aircraft from the manufacturer, the manufacturer is still responsible for maintaining the aircraft in an airworthy condition in accordance with its own maintenance program and complies with regulatory authority rules.

**Your answer:**

False **Correct**

**Question #24** (2 points)

The Operator Certificate is transferrable to another operator.

**Your answer:**

False **Correct**

**Question #25** (2 points)

This manual contains the basic information on the operation and maintenance of the aircraft and its on-board equipment.

**Your answer:**

Aircraft Maintenance Manual **Correct**

**Question #26** (2 points)

This manual contains diagrams of the electrical, electronic, and hydraulic systems - these can be block diagram and often contain detailed diagrams of wiring harnesses, connectors, and interfacing equipment.

**Your answer:**

Schematic diagram manual **Correct**

**Question #27** (2 points)

There are two types of documents - controlled and non-controlled).
A document that has limited distribution within airline and requires regular revisions and must include list of revisions, active and rescinded page numbers in document is known as a controlled document.

**Your answer:**

True **Correct**

**Question #28** (2 points)

Substantial regulations issued by the FAA to correct unsafe conditions that exist in a product (aircraft, aircraft engine, propeller, or appliance) are called:

**Your answer:**

Airworthiness Directives (ADs) **Correct**

**Question #29** (2 points)

Federal Aviation Regulations (FARs), Advisory Circulars (ACs), Airworthiness Directives (ADs), and Notice of Proposed Rule Making (NPRM) are all examples of this type of documentation.

**Your answer:**

Regulatory Documentation **Correct**

**Question #30** (2 points)

What department is the nerve center of line maintenance?

**Your answer:**

Maintenance Control **Correct**

**Question #31** (2 points)

What is CASS?

**Your answer:**

Program to detect and correct deficiencies in maintenance program effectiveness and performance. **Correct**

**Question #32** (2 points)

The AC 120-16E w/chg 1 outlines the OpSpecs and maintenance requirements.

**Your answer:**

True **Correct**

**Question #33** (2 points)

Proper training is the responsibility of those assigned to the maintenance department NOT the airline.

**Your answer:**

False **Correct**

**Question #34** (2 points)

This program looks at problem areas, determines corrective action, tracks the activity to determine effectiveness of the correction.

**Your answer:**

CASS **Correct**

**Question #35** (2 points)

Required Inspection Items (RIIs) are defined by the FAA as “those items that could result in unsafe operation of the aircraft if maintenance is not performed correctly or if improper parts are used.”

**Your answer:**

True **Correct**

**Question #36** (2 points)

What are the three main concepts of organizational structure?

**Your answer:**

Span of Control, Grouping of Similar Functions, Separation of Maintenance Activities from Oversight **Correct**

**Question #37** (2 points)

What area of the maintenance program must remain separate to avoid conflict of interest?

**Your answer:**

maintenance program evaluation **Correct**

**Question #38** (2 points)

This concept states that a manager can effectively supervise or control three to seven people.

**Your answer:**

span of control **Correct**

**Question #39** (2 points)

This department is responsible for conducting routine inspections of maintenance and repair work, certifying maintenance and inspection personnel, and management of the required inspection items (RIIs) program.

**Your answer:**

quality control **Correct**

**Question #40** (2 points)

This department is responsible for curriculum, course development, administration, and records for all formal training attended by employees.

**Your answer:**

training **Correct**

**Question #41** (2 points)

The airline engineering department is made up of the more experienced people of the maintenance organization.

**Your answer:**

True **Correct**

**Question #42** (2 points)

Engineering can also provide expertise to training, \_\_\_\_\_\_\_\_\_, the technical library, or any other M&E organization needing technical help.

**Your answer:**

Materiel **Correct**

**Question #43** (2 points)

The engineer should be able to \_\_\_\_\_\_\_\_\_\_\_\_\_.

**Your answer:**

Pick up a problem where the mechanic left off **Correct**

**Question #44** (2 points)

One of the secondary functions of engineering is to evaluate new equipment for the airline.

**Your answer:**

False **Correct**

**Question #45** (2 points)

It takes both \_\_\_\_\_ and maintenance to make an effective and efficient maintenance and engineering organization run smoothly.

**Your answer:**

Engineering **Correct**

**Question #46** (2 points)

PP&C because of its key role in planning and scheduling makes it the \_\_\_\_\_\_of maintenance and engineering program.

**Your answer:**

Heart **Correct**

**Question #47** (2 points)

Maintenance planners primary function is to

**Your answer:**

Develop all scheduled work and/or work scope needs for all line maintenance and hangar maintenance **Correct**

**Question #48** (2 points)

Planning function in PP&C does

**Your answer:**

Scheduling upcoming maintenance, and includes scheduling details and timeframe requirements. **Correct**

**Question #49** (2 points)

Multiple checks are when regular maintenance checks are split into different phases

**Your answer:**

False **Correct**

**Question #50** (2 points)

“C” checks involve the categories of

**Your answer:**

Routine, variable routine, and nonroutine **Correct**

**Chapter 10**

**Question #51**

Which of the following is NOT a function of Technical Publications

#### Your answer:

To establish and maintain order of all maintenance procedures within the airline by any necessary means, including, but not limited to tyranny, torture, and – under extreme conditions – death. ****Correct

**Question #52** (10 points)

The primary reason for having a technical publications organization is to ensure that all applicable publications related to the airline operation are available to the users and are up to date with the latest changes.

#### Your answer:

True ****Correct

**Question #53** (10 points)

Which of the following is NOT considered an internal airline document?

#### Your answer:

Advisory Circulars ****Correct

**Question #54** (10 points)

Maintenance-related documents are classified as either

#### Your answer:

Uncontrolled/Controlled ****Correct

**Question #55** (10 points)

A signature indicating the receipt and applicability of documentation sent to an organization is a necessary component of technical publications protocol involving document distribution.

#### Your answer:

True ****Correct

**Chapter 11**

**Question #56**

The airlines are responsible for the proper training of all personnel, including:

#### Your answer:

AMTs, flight crews, managers, auditors, cabin crews, ground handling crews, inspectors, and computer operations and administrative personnel. ****Correct

**Question #57** (10 points)

The Director of Quality Control work in conjunction with the training department to comply with any airworthiness training, \_\_\_\_\_\_\_\_\_\_\_\_\_ , and various other QA and QC training.

#### Your answer:

Required inspection authorization ****Correct

**Question #58** (10 points)

Advisory Circular AC 120-72 deals with maintenance resource management training.

#### Your answer:

True ****Correct

**Question #59** (10 points)

For maintenance personnel, there are several kinds of required training. The airline required trainings are:

#### Your answer:

Organizational training, On-the-job training, manufacturer training, quality training, safety training and refresher training. ****Correct

**Question #60** (10 points)

This type of training is usually accomplished before a mechanic is hired.

#### Your answer:

Formal ****Correct

**Chapter 12**

**Question #61** (10 points)

All management personnel must go through diversity training.

#### Your answer:

True ****Correct

**Question #62** (10 points)

Who oversees operations done at base stations?

#### Your answer:

VP and DOM ****Correct

**Question #63** (10 points)

Who is responsible for all overhaul shops?

#### Your answer:

Overhaul manager ****Correct

**Question #64** (10 points)

Unavailability of an aircraft means that the aircraft is \_\_\_\_\_\_\_\_\_\_\_\_.

#### Your answer:

Not going to make the flight it has been scheduled for ****Correct

**Question #65** (10 points)

They keep abreast of industry trends and new developments in aviation, maintenance, safety, system upgrade, and modifications to existing systems.

#### Your answer:

Front line supervisors ****Correct

**Chapter 13**

**Question #66** (10 points)

The makeup of the line maintenance does not depend on the size of the airline.

#### Your answer:

False ****Correct

**Question #67** (10 points)

The MCC should be on top of everything that is happening to all aircraft in service.

#### Your answer:

True ****Correct

**Question #68** (10 points)

What does line maintenance do?

#### Your answer:

Provide normal services, exchange passengers, exchange baggage and cargo. ****Correct

**Question #69** (10 points)

The FAA does not require documentation on maintenance discrepancies.

#### Your answer:

False ****Correct

**Question #70** (10 points)

Crews assigned to line maintenance are not required to be well trained in their profession.

#### Your answer:

False ****Correct

**Chapter 14**

**Question #71** (10 points)

Hangar maintenance refers to:

#### Your answer:

The maintenance which is done on an out-of-service aircraft ****Correct

**Question #72** (10 points)

The 5 steps to a typical “C” Check are preparation, preliminary activities, conduct of the check, completion and sign off, and return to service:

#### Your answer:

True ****Correct

**Question #73** (10 points)

One of the most important activities of the M&E operations is the \_\_\_\_\_\_\_\_ where the current maintenance status is addressed.

#### Your answer:

Morning meeting ****Correct

**Question #74** (10 points)

Ground support Equipment is defined as

#### Your answer:

The equipment required to support the operation and maintenance of the aircraft and all its airborne equipment. ****Correct

**Question #75** (10 points)

Because the requirements in skills parts, supplies, and time can vary considerably depending on the nature of the discrepancy found there \_\_\_\_\_\_\_\_\_\_ types of problems in hangar maintenance:

#### Your answer:

nonroutine items ****Correct

**Chapter 15**

**Question #76** (10 points)

Materiel, inventory, stores, and logistics management’s primary function is to \_\_\_\_\_\_\_\_.

#### Your answer:

Understand the logistics and scope of aviation inventory management ****Correct

**Question #77** (10 points)

Inventory control refers to \_\_\_\_\_\_\_\_\_\_.

#### Your answer:

a continual effort to supervise the supply, storage, and accessibility of aircraft parts ****Correct

**Question #78** (10 points)

Obsolete parts are \_\_\_\_\_\_\_\_.

#### Your answer:

Parts that are no longer wanted or required due to component upgrade or change ****Correct

**Question #79** (10 points)

AOG means aircraft on the ground.

#### Your answer:

True ****Correct

**Question #80** (10 points)

These support functions can be stated briefly as \_\_\_\_\_\_\_.

#### Your answer:

none of the above ****Correct

**Chapter 16**

**Question #81** (10 points)

One of the functions of QA is the maintenance of technical records.

#### Your answer:

True ****Correct

**Question #82** (10 points)

One of the processes related to line, hangar, and shop maintenance is:

#### Your answer:

Logbooks ****Correct

**Question #83** (10 points)

Technical records show:

#### Your answer:

major repairs ****Correct

**Question #84** (10 points)

Spot checks may be of aircraft being maintained at hangar, line maintenance, safety, maintenance shops, paperwork, \_\_\_\_\_\_\_\_\_\_\_\_\_, or equipment being used.

#### Your answer:

tooling ****Correct

**Question #85** (10 points)

Permanent records identify permanent changes to the configuration of the aircraft, engines, components, and appliances.

#### Your answer:

True ****Correct

**Chapter 17**

**Question #86** (10 points)

What does RII stand for?

#### Your answer:

Required Inspection Item ****Correct

**Question #87** (10 points)

What does QC stand for?

#### Your answer:

Quality Control ****Correct

**Question #88** (10 points)

Which of the following are basic maintenance inspections?

#### Your answer:

General visual inspections ****Correct

**Question #89** (10 points)

Which of the following is a requirement to be a QC inspector?

#### Your answer:

Have a valid mechanics license ****Correct

**Question #90** (10 points)

What is necessary in the M&E organization?

#### Your answer:

Quality Control ****Correct

**Chapter 18**

**Question #91** (10 points)

The reliability program is:

#### Your answer:

a valuable means of achieving better operational performance ****Correct

**Question #92** (10 points)

The two approaches to reliability are:
-One approach that looks at the whole operation of an airline
-The other looks at departure times, employee efficiency, and maintenance records, to determine airline efficiency

#### Your answer:

False ****Correct

**Question #93** (10 points)

Reliability can be used in various respects, all are possible respects EXCEPT….

#### Your answer:

Reliability of the temperature and wind conditions ****Correct

**Question #94** (10 points)

\_\_\_\_\_\_\_\_\_ reliability is based upon a collection of analysis of failure, removal, and repair rates of systems and components

#### Your answer:

Statistical ****Correct

**Question #95** (10 points)

An airline has the ability to choose the types of data recorded and is not required to record all types of data.

#### Your answer:

True ****Correct

**Chapter 19**

**Question #96** (10 points)

What government agency is responsible for enforcing the US Gov’t regulations for Industrial Safety?

#### Your answer:

OSHA ****Correct

**Question #97** (10 points)

What is the General Information contained on MSDS (Maintenance Safety Data Sheets)?

#### Your answer:

Chemical Manufacturer, Identify Hazards, Precautions, First Aid Instructions ****Correct

**Question #98** (10 points)

Who is responsible for providing safe and sanitary work conditions and appropriate PPE?

#### Your answer:

Company ****Correct

**Question #99** (10 points)

Who is responsible for the proper use of tools and equipment?

#### Your answer:

Employee ****Correct

**Question #100** (10 points)

What does properly grounding an aircraft prevent?

#### Your answer:

Electrostatic discharge (ESD) ****Correct