Name:

Enrolment No:



UNIVERSITY OF PETROLEUM & ENERGY STUDIES

End Semester Examination, December 2021

Program: BBA AVO Subject/Course: Ground Handling Operations

Course Code: TRAV 2005P

Semester: V Max. Marks: 100 Duration: 3 Hours

IMPORTANT INSTRUCTIONS

- 1. The student must write his/her name and enrolment no. in the space designated above.
- 2. The questions have to be answered in this MS Word document.
- 3. After attempting the questions in this document, the student has to upload this MS Word document on Blackboard.

| Q.No1 | Answer all the questions | Marks | COs |
|-------|---|-------|-----|
| I) | Assertion A: The width of the taxiway is smaller than the runway width. Reason R: The speed of the aircraft on a taxiway is greater than that on runway. | | |
| | Select your answer based on coding system given below | 2 | CO1 |
| | A) Both A and R is true and R is the correct explanation of A. B) Both A and R is true but R is not the correct explanation of A. C) A is true but R is false | | |
| II) | D) A is false but R is true Differentiate between LDM and CPM message. | 2 | CO1 |
| III) | What is a METAR? Give an example. | 2 | CO1 |
| IV) | Illustrate the difference between errors and violations. | 2 | CO1 |
| V) | Draft a MVT message for a flight returning to bay due to technical issue. | 2 | CO1 |
| VI) | The runway orientation is made so that landing and take-off are A) Against the wind direction B) Along the wind direction C) Perpendicular to wind direction D) None of the above | 2 | CO1 |
| VII) | According to the International Civil Aviation Organization (ICAO), the runway length of aerodromes, have been coded by A) Seven English alphabets | 2 | CO1 |

| | B) Last Seven English alphabets | | |
|-------|--|------|--------------|
| | C) First Seven English alphabets | | |
| | D) First seven natural numbers | | |
| | D) That seven natural numbers | | |
| | According to ICAO, all markings on the runway are painted | | |
| VIII) | and on taxiways | 2 | CO1 |
| | , | | |
| | Which of the following factors are, taken into account for estimating the | | |
| | runway length required for aircraft landing? | | |
| | Normal maximum temperature | | |
| | 2. Airport elevation | | |
| | 3. Maximum landing weight | | |
| | 4. Effective runway gradient | | |
| IX) | | 2 | CO1 |
| | Select the answer, using the below given codes | | |
| | , 6 | | |
| | A) 1, 2, 3 and 4 | | |
| | B) 1, 3 and 4 | | |
| | C) 2 and 3 | | |
| | D) 1, 2 and 4 | | |
| | Two single runways may be arranged so as to have | | |
| | | | |
| X) | A) X-shape | 2 | CO1 |
| 11) | B) L-shape | _ | 201 |
| | C) T-shape | | |
| | D) All of the above | | |
| Q.No2 | Section B | | |
| | Attempt all the questions. Each question carry equal marks. | | |
| I) | Examine the elements that require supervision by individuals assigned to | 5 | CO2 |
| | oversee ground-handling operations. | | |
| ** | Imagine you are working as baggage handling officer for BWFS (ground | _ | COC |
| II) | handling organization) at BLR airport. How would you ensure seamless | 5 | CO2 |
| | baggage reconciliation? | | |
| III) | Describe the inherent risks in the ground handling process, especially for | 5 | CO2 |
| | ramp services. | | - |
| | You have recently joined a ground handling company. What would you | _ | G0.5 |
| IV) | do if you disagreed with the way a manager wanted you to handle a | 5 | CO2 |
| | problem. | | |
| Q.No3 | Section C - Attempt all the questions | | |
| | Illustrate the value chain of airport ground operations through a flow | 10 | GO2 |
| I) | chart. | 10 | CO3 |
| - | Analyze the key areas of digital innovation of airport ground operations. | 10 | CO2 |
| | | 1 10 | CO3 |
| II) | | 10 | |
| III) | Attempt only one question (either 'A' or 'B'). | 10 | CO3 |

| | A) Analyze the key factors that affect the safe transport of live animals by air. | | |
|--------|---|----|-----|
| | OR | | |
| | On 23 July 2015, an ATR72-600 crew suspected their aircraft was unduly tail heavy in flight. After the flight, they found that all passenger baggage had been loaded in the aft hold whereas the load sheet indicated that it was all in the forward hold. The Investigation found that the person responsible for hold loading as specified had failed do so and that the supervising Dispatcher, who had certified the load sheet presented to the aircraft Captain, had not detected this failure. Similar loading errors, albeit all corrected prior to flight, were found by the Operator to be not uncommon. | | |
| | B) Analyze the contributory factors that lead to the incident and suggest measures to reduce such incidents within GH organizations. | | |
| Q.No.4 | Section D - Attempt all the questions | | |
| I) | Analyze the preconditions for unsafe acts as illustrated in the Swiss Cheese model with examples from GH organizations. | 15 | CO4 |
| II) | Ramp workers are an overlooked segment of the circle of safety in the aviation industry. Worldwide, it is, estimated that there are 27,000 incidents/accidents on airports ramps and 243,000 injuries (9 per 1000 departures) per year. Ramp accidents are, estimated to cost major airlines at least \$10 billion annually. According to data from the Service Employees International Union, there have been 99 people killed in airport ramp accidents since 2001. The majority of the fatalities were ramp workers; however, the risks extend beyond the ramp and ramp workers. For example, at Seattle-Tacoma International Airport (SEA) a ramp vehicle punctured an aircraft fuselage on the ramp resulting in the departing aircraft experiencing a sudden cabin depressurization on a flight with 142 people on-board. In 2015, a ramp worker who fell asleep in the cargo hold caused the aircraft to make an emergency landing. These incidents demonstrate that ramp accidents extend risks to the flying public. A) Analyze the significance of fatigue management in GH organizations. OR B) You have been, appointed as safety officer in ABC ground handling. How would you ensure that safety risk management is, | 15 | CO4 |

ANSWERS