

INTERNAL ASSIGNMENT QUESTIONS
B.Sc. (Aviation) III YEAR
ANNUAL EXAMINATIONS JUNE / JULY - 2018



PROF. G. RAM REDDY CENTRE FOR DISTANCE EDUCATION
(RECOGNISED BY THE DISTANCE EDUCATION BUREAU, UGC, NEW DELHI)

OSMANIA UNIVERSITY

(A University with Potential for Excellence and Re-Accredited by NAAC with "A" + Grade)

DIRECTOR
Prof. C. GANESH
Hyderabad – 7 Telangana State

**PROF.G.RAM REDDY CENTRE FOR DISTANCE EDUCATION
OSMANIA UNIVERSITY, HYDERABAD – 500 007**

Dear Students,

Every student of B.Sc. Aviation III year has to write and submit **Assignment** for each paper compulsorily. Each assignment carries **20 marks**. The marks awarded to you will be forwarded to the Controller of Examination, OU for inclusion in the University Examination marks. If you fail to submit Internal Assignments before the stipulated date, the internal marks will not be added to University examination marks under any circumstances. The assignment marks will not be accepted after the stipulated date,

You are required to **pay Rs.300/- fee** towards Internal Assignment marks through Online and submit the same along with assignment at the concerned counter **on or before 6th October, 2018** and obtain proper submission receipt.

ASSIGNMENT WITHOUT THE DD WILL NOT BE ACCEPTED

Assignments on Printed / Photocopy / Typed papers will not be accepted and will not be valued at any cost. Only hand written Assignments will be accepted and valued.

Methodology for writing the Assignments:

1. First read the subject matter in the course material that is supplied to you.
2. If possible read the subject matter in the books suggested for further reading.
3. You are welcome to use the PGRRCDE Library on all working days including Sunday for collecting information on the topic of your assignments. (10.30 am to 5.00 pm).
4. Give a final reading to the answer you have written and see whether you can delete unimportant or repetitive words.
5. The cover page of the each theory assignments must have information as given in FORMAT below.

FORMAT

1. NAME OF THE STUDENT :
2. ENROLLMENT NUMBER :
3. B.Sc. Aviation III year :
4. NAME OF THE PAPER CODE :
5. DATE OF SUBMISSION :

6. Write the above said details clearly on every subject assignments paper, otherwise your paper will not be valued.
7. Tag all the assignments paper wise and submit assignment number wise.
8. Submit the assignments on or before **6th October, 2018** at the concerned counter at PGRRCDE, OU on any working day and obtain receipt.

DIRECTOR

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**III year B.Sc. (AVIATION)
Paper III ASSIGNMENT
Subject: Aviation Physics –III
(**Advanced Aviation Meteorology**)
SPECIALISATION: FLIGHT OPERATIONS**

*Answer all the questions
Each question carries TWO marks*

1. What are the METAR, SPECI and TAF?
2. What is ARFOR? In India what is its frequency and coverage?
3. What is the importance of HF VOLMET?
4. What is the significance of EI nino and La nino with respect to southwest monsoon?
5. What are the effects of hot conditions on Aircraft performance?

**Answer all the questions
Each question carries FIVE marks**

1. How many types of wind shears are there due to different weather phenomena and its effects on aviation?
2. a. Describe in detail about the visibility reducing phenomena. b. What are wind tip vortices?

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III Year B.Sc. (AVIATION)

Paper III ASSIGNMENT

Subject: Aviation Physics –IV

**(Aero Dynamics & Aircraft Engine-Technical General)
SPECIALISATION: FLIGHT OPERATIONS**

Answer all the questions

Each question carries TWO marks

1. Explain the maintenance precautions of jet engine.
2. Write about fuelling procedure of aircraft.
3. Explain PRE-LANDING CHECKS and LANDING CHECKS.
4. Define the operating limitations a) MTOW b) MLW.
5. Explain general emergency of engine failure on takeoff and during take-off.

Answer all the questions

Each question carries FIVE marks

1. Describe the principle of operation of TACH METER INDICATOR.
2. Write short notes on CRM training.

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III Year B.Sc. (AVIATION)

Paper III ASSIGNMENT

Subject: Aviation Science –III

(Air Navigation)

SPECIALISATION: FLIGHT OPERATIONS

Answer all the questions

Each question carries TWO marks

1. What is DR, Explain about it?
2. What are the do's and don'ts associated with thunderstorm f?
3. What is SID and STAR? Explain in detail.
4. Describe the principle of operation of VOR?
5. List five RT phraseologies and its meaning?

Answer all the questions

Each question carries FIVE marks

1. Differentiate between refraction, diffraction & reflection.
2. Explain the operating principle of ADF/VOB?

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**III Year B.Sc. (AVIATION)
Paper III ASSIGNMENT
Subject: Aviation Science –IV
(**Air Regulations**)
SPECIALISATION: FLIGHT OPERATIONS**

*Answer all the questions
Each question carries TWO marks*

1. What is the penalty for unauthorized carriage of dangerous goods in the aircraft?
2. What is 'Instrument Approach Procedure'?
3. What does the ground signal showing a horizontal white letter 'H' indicates?
4. Define visibility and ceiling.
5. Who are subject to aircraft act, 1937?

**Answer all the questions
Each question carries FIVE marks**

1. a) Explain Right of Way rules for surface movement aircraft
b) What is the minimum level for an IFR Flight?
2. a) What is the Air-Ground Communication Failure procedure for an aircraft in IMC?
b) Define Flight Level.

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III year B.Sc. (AVIATION)

Paper III ASSIGNMENT

Subject: CESSNA – 152A and CESSNA -172R (Glass Cockpit (Technical Specific))

**SPECIALISATION: FLIGHT
OPERATIONS**

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*Answer all the questions
Each question carries TWO marks*

1. What is HIS? Write a short note on HSI?
2. Using a sample problem explain how to calculate mass & balance of Cessna 152.
3. Explain the fuel & oil used in Cessna 152.
4. Give the values of stall speed at 2450 pounds with C.G at the most rearward position.
5. Explain the checklist for engine failure during takeoff for C-152?

**Answer all the questions
Each question carries FIVE marks**

1. Explain how to secure C-152?
2. Using a sample problem explain the performance of Cessna 172?