



# **DIPLOMA IN MECHANICAL ENGINEERING R & AC**

## **CENTRALIZED QUESTION BANK**

**4221640 - Automobile Engineering and  
Transport Air conditioning Practical**

**DIRECTORATE OF TECHNICAL  
EDUCATION GOVERNMENT OF  
TAMILNADU**

## **DIPLOMA END SEMESTER / YEAR EXAMINATION – 2023**

**Course :** Mechanical Engineering R & AC

**Subject :** Automobile Engineering and Transport Air conditioning    **QP Code :** 4221640  
Practical

**Time :** 3 Hours

**Date :**

**Session:**

**Max Marks:** 100

### **ANSWER ALL THE QUESTIONS**

1. (a) Measure the Cylinder Bore Stroke and the capacity of a Given Engine.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Capacity calculation	20 Marks
Result	05 Marks

- (b) Explain in detail the working of Commercial Truck Refrigeration system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

2. (a) Dismantle, Service and Assemble the Given Piston.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

- (b) Explain in detail the working of Railway Air-conditioning system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

3. (a) Dismantle, Service and Assemble the Given Carburettor.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

- (b) Explain in detail the working of Bus Air-conditioning system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

4. (a) Dismantle, Service and Assemble the Given Mechanical Fuel pump.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

- (b) Explain in detail the working of Car Air-conditioning system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

5. (a) Dismantle, Service and Assemble the Given Multiple plate Clutch.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

- (b) Explain in detail the working of ICU Ambulance Air-conditioning system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

6. (a) Dismantle, Service and Assemble the Given Mechanical Drum Brake.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

- (b) Explain in detail the working of Commercial Marine Refrigeration system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

7. (a) Dismantle, Service and Assemble the Given Carburettor.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

(b) Explain in detail the working of ICU Ambulance Air-conditioning system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

8. (a) Dismantle, Service and Assemble the Given Mechanical Drum Brake.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

(b) Explain in detail the working of Car Air-conditioning system.

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

9. (a) Dismantle, Service and Assemble the Given Multiple plate Clutch.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

(b) Explain in detail the working of Railway Air-conditioning system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks

10. (a) Dismantle, Service and Assemble the Given Mechanical Fuel pump.

Aim and Procedure	10 Marks
Dismantling	15 Marks
Servicing and Assembling	20 Marks
Result	05 Marks

(b) Explain in detail the working of Commercial Truck Refrigeration system

Aim	05 Marks
Description and Sketch	30 Marks
Result	05 Marks
Viva voce	10 Marks