



DIPLOMA IN REFRIGERATION & AIR CONDITIONING

CENTRALIZED QUESTION BANK

**1020234640 - METROLOGY AND
MEASUREMENTS**

**DIRECTORATE OF TECHNICAL
EDUCATION GOVERNMENT OF
TAMILNADU**

DIPLOMA END SEMESTER / YEAR EXAMINATION – 2025

Course: Refrigeration & Air conditioning

Subject : Metrology and Measurements

QP Code : 1020234640

Time : 3 Hours

Date :

Session:

Max Marks: 100

Answer the following Questions

- i) Measure the dimensions of ground MS flat/Cylindrical bush using Vernier Caliper.
- ii) Compare the results with Digital Vernier Caliper.

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

DIPLOMA END SEMESTER / YEAR EXAMINATION – 2025

Course: Refrigeration & Air conditioning

Subject : Metrology and Measurements

QP Code : 1020234640

Time : 3 Hours

Date :

Session:

Max Marks: 100

Answer the following Questions

- i) Measure the diameter of a wire using micrometer
- ii) Compare the results with a digital Outside micrometer.

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

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Session:

Max Marks: 100

Answer the following Questions

- i) Measure the inside diameter of the bore of a bush cylindrical component using Inside Micrometer
- ii) Compare the results with digital inside micrometer.

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

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Session:

Max Marks: 100

Answer the following Questions

- i) Measure the thickness of ground MS plates using slip gauges.

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

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Session:

Max Marks: 100

Answer the following Questions

i) Measure the height of gauge blocks or parallel bars using vernier height gauge..

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

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Session:

Max Marks: 100

Answer the following Questions

- i) Find out the measurement of a given component and Compare with a standard Component using a mechanical comparator and slip gauge.

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

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Session:

Max Marks: 100

Answer the following Questions

- i) Measure the angle of a V-block/Taper Shank of Drill / Dovetail using universal bevel Protractor.

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

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Date :

Session:

Max Marks: 100

Answer the following Questions

- i) Measure the angle of the machined surface using sine bar with slip gauges.

Allocation of Marks

Sl. No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

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Date :

Session:

Max Marks: 100

Answer the following Questions

- i) Measure the geometrical dimensions of V-Thread using screw thread micrometer.

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100

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Date :

Session:

Max Marks: 100

Answer the following Questions

- i) Measure the geometrical dimensions of spur gear using gear tooth vernier caliper.

Allocation of Marks

Sl No	Description	Max Marks
1	Procedure / Preparation	10
2	Observation / Dimensions	20
3	Accuracy	20
4	Result	10
5	Viva voce	10
6	Written test	30
	Total	100