SHRI MATA VAISHNO DEVI UNIVERSITY

Kakryal, Katra -182320, J&K (INDIA)
(Recognized under section 12(B) & 2(f) of UGC Act, 1956)

CENTRAL WORKSHOP

Minor Exam- II (B. Tech E&C)

Course title: Mechanical Workshop **Course Code: MEL 1111**

Time Allowed: 1 hours **Max Marks: [20]**

All questions are compulsory. Wherever necessary, the diagrams drawn should be neat and properly labelled.

Q1. Explain the types of measurement with examples and neat sketches. (5)

Q2. (a) What is the main purpose of the welding? Explain the role of ~~electrode~~ electrode. (3)
Convert 45.6 cm and 355mm into inches.

(b) ~~What are the specifications of the grinding wheel ?~~ (2)

Q3. (a) What are non - ferrous metals? What are three primary groups of plain carbon steels? (3)

(b) Compare the height gauge with screw gauge? (2)

Q4. ~~Explain single point cutting and multipoint cutting tools with neat sketches.~~ (5)

What is calibration ? Diff. b/w accuracy and precision.

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CENTRAL WORKSHOP

Minor Exam- I (Electronic and Communication Engg.)

Course title: Mechanical Workshop **Course Code: MEP 1111**

Time Allowed: 1 hours **Max Marks: [20]**

All questions are compulsory. Wherever necessary, the diagrams drawn should be neat and properly labelled.

Q1. What is sand moulding? Explain the steps involved in sand moulding process with a neat sketch. (5)

Q2. (a) Describe pattern? What are the common patterns used in the foundry? (3)

(b) Explain the constituents of moulding sand. (2)

Q3. (a) Explain the three jaw chuck with neat Sketch. (3)

(b) Write merits and demerits of soft wood. (2)

Q4. Write the various operations performed on lathe machine and explain any two with neat sketch. (5)

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CENTRAL WORKSHOP

Minor Exam- II (Electronic and Communication Engg.)

Course title: Mechanical Workshop **Course Code: MEL 1111**

Time Allowed: 1 hours **Max Marks: [20]**

All questions are compulsory. Wherever necessary, the diagrams drawn should be neat and properly labelled.

Q1. Explain the types of measurement with examples and neat sketches. (5)

Q2. (a) What is the main purpose of the welding? Explain the parts of oxy-acetylene with colour coding? (3)

(b) What is the SWG used for? What is SWG 36? (2)

Q3. (a) What are non - ferrous metals? What are three primary groups of plain carbon steels? (3)

(b) Compare the vernier calliper with screw gauge? (2)

Q4. Draw a neat diagram of single point cutting tool and explain its various parts and angles. (5)

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CENTRAL WORKSHOP

Major Exam –Electronics and communication Engg.

Course Title: Engineering Workshop **Course Code: MEM SE 101**

Time Allowed: 3 hours **Max Marks: [50]**

All questions are compulsory. Wherever necessary, the diagrams drawn should be neat and properly labelled.

Section-A

Q1. (a) What is seasoning? Explain the different types of seasoning. (4)

(b) Differentiate between cope box and drag box with sketch (2)

Q2. (a) How the lathe machine is specified? Explain with sketch. (4)

(b) Explain the difference between the lathe and shaping machines mechanism. (2)

Q3. (a) Name principal parts of knee and column type milling machine with sketch. (4)

(b) What are the main functions of coolants? Justify your answer with example. (2)

Q4. (a) What is grinding and explain the different materials used in making of grinding wheel. (4)

(b) Compare any three manufacturing processes briefly? (3)

Section-B

Q5. Write down the tools, material, machines, procedure and precautions required to conduct the practical in Pattern making / Foundry /Welding /Machine/ Fitting/Sheet metal /Measurements. (25)

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CENTRAL WORKSHOP

Mid-Term Exam –E&C

Course Title: Engineering Workshop

Course Code: MEMSE 101

Time Allowed: 1.5 hours

Max Marks: [20]

All questions are compulsory. Wherever necessary, the diagrams drawn should be neat and properly labelled.

Q1. What is measurement? When would you prefer direct measurement over indirect measurement (4)

Q2. Explain the standard wire gauge (SWG) with sketch and why is it important in manufacturing and engineering? (4)

Q3. What are the key components of a lathe machine, and how do they contribute to its functionality ? Explain with sketch . (4)

Q4. Describe the process of sand casting and the materials typically used. (4)

Q5. What is the role of a manufacturing engineer, and how does it differ from a production engineer (4)

Differentiate between hardwood and softwood. Explain any one.

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SHRI MATA VAISHNO DEVI UNIVERSITY, KATRA

Central Workshop, School of Mechanical Engineering

B. Tech. (ECE)

Major Examination, Dec, 2024

Entry No: 24BECE0555 **Total Number of Pages: [2]**

Date: **Total Number of Questions: [3]**

Course Title: Engineering Workshop

Course Code: SEMEM 101

Time Allowed: 03 Hours **Max Marks: [40]**

Instructions / NOTE

i. Attempt all Questions.

ii. Support your answer with neat freehand sketches/diagrams, wherever appropriate.

Q1.	**ALL** parts are mandatory		
	(a) What is the least count of a screw gauge?	[1]	CO1
	(b) Describe one application of fitting work.	[1]	CO4
	(c) Define the purpose of a depth gauge.	[1]	CO1
	(d) Explain the purpose of vent wire in foundry.	[1]	CO3
	(e) What is the main use of a hacksaw in metalwork?	[1]	CO1
Q2.	Attempt any **05 questions**		
	(a) What is the role of flux coating on the electrode?	[3]	CO3
	(b) Explain the single point cutting tool with sketch.	[3]	CO2
	(c) List the processes which can be performed on a lathe machine.	[3]	CO1
	(d) What is the difference between facing and chamfering?	[3]	CO3
	(e) Explain different types of pulleys.	[3]	CO2
	(f) What is the difference between hammer and mallet?	[3]	CO2
Q3.	Attempt any **04 questions, part (c) and one** out of **(g)** and **(h)** is COMPULSORY		
	(a) How a standard wire gauge is used to measure the diameter of a wire? Explain with neat sketch.	[5]	CO1
	(b) Name and explain any three commonly used patterns.	[5]	CO4
	(c) Explain the specification of the drilling bit with sketch.	[5]	CO2

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	(d) Explain in detail the role of a cutting fluid in machining?	[5]	CO4
	(e) Explain the electric arc welding with neat sketch.	[5]	CO3
	(f) Explain lever system with suitable example and neat sketch.	[5]	CO2
	(g) Discuss different types of transmission system. Explain any one.	[5]	CO3
	(h) Explain the various sheets used in sheet metal work with examples.	[5]	CO4

Course Outcomes

CO1: Introduce the basic concept of research, sampling methods.
CO2: Enable the students to understand the measures of Central tendency and dispersion Probability Distributions
CO3: Understand the different methods of Testing of Hypothesis, Correlation, regression and Analysis of Variance.
CO4: Understand the different methods of Correlation, regression and Analysis of Variance.

CO	Questions Mapping	Total Marks	Total Number of Students
CO1	1(a,c,e),2(c),3(a)	11	76
CO2	2(b,e,f), 3(c,5)	19	76
CO3	1(d),2(a,d),3(e,g)	17	76
CO4	1(b),3(b,d,h)	16	76

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