

QP CODE: 103028

Reg. No:

**First Year Bachelor in Prosthetics and Orthotics Degree Regular
Examinations November 2025**

**Workshop Technology and Material Science
(2024 Scheme)**

Time: 3 Hours

Total Marks: 80

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essay

(2x15=30)

1. a) Differentiate between ferrous and non-ferrous metals.
b) Explain various heat treatment process of metals.
2. a) Differentiate between thermoplastics and thermosetting plastics.
b) Explain different types of foams used in Prosthetics and Orthotics.

Short Essays

(7x5=35)

3. What are the safety precautions that should be followed in the workshop.
4. Compare brazing and welding process.
5. Explain the need for surface coating on metals.
6. Explain composite materials.
7. Describe the importance of seasoning in wood.
8. What are the applications of plaster of paris in Prosthetics.
9. Describe lamination process in leather.

Answer briefly

(5x3=15)

10. Explain powder metallurgy process.
11. Write any four lathe operations.
12. Define mechanical working of metals.
13. What is meant by leather tanning process.
14. Define monomer and polymer
