

**Table of Specification**  
**PhD Entrance Test (PhD Science of Dental Materials)**

<b>S. No</b>	<b>Topic</b>	<b>No. of MCQs</b>
1	Ceramics <ul style="list-style-type: none"> <li>• Fabrication techniques</li> <li>• CAD-CAM</li> <li>• Porcelain-fused-to-metal</li> </ul>	10
2	Metallurgy <ul style="list-style-type: none"> <li>• Gold and Noble Metal Alloys</li> <li>• Base Metal Alloys</li> <li>• Steel and Wrought Alloys</li> </ul>	07
3	Polymers <ul style="list-style-type: none"> <li>• Denture base polymers</li> <li>• Denture lining materials</li> </ul>	03
4	Impression Materials <ul style="list-style-type: none"> <li>• Elastic impression materials</li> <li>• Non- Elastic impression materials</li> </ul>	07
5	Adhesive Bonding <ul style="list-style-type: none"> <li>• Enamel Bonding</li> <li>• Dentin Bonding</li> </ul>	12
6	Composite resin and glass ionomer <ul style="list-style-type: none"> <li>• Properties</li> <li>• Setting Characteristics</li> </ul>	10
7	Cements <ul style="list-style-type: none"> <li>• Phosphoric acid based</li> <li>• Organometallics-chelate based</li> <li>• Polycarboxylates</li> <li>• Endodontics</li> </ul>	07
8	Dental Implants <ul style="list-style-type: none"> <li>• Types</li> <li>• Osseo integration</li> </ul>	05
9	Tissue Engineering <ul style="list-style-type: none"> <li>• Biomaterials and scaffold fabrication</li> <li>• Soft tissue engineering</li> <li>• Hard tissue engineering</li> </ul>	12
10	Characterization techniques <ul style="list-style-type: none"> <li>• Microscopy</li> <li>• Spectroscopy</li> <li>• Mechanical</li> <li>• Biological</li> </ul>	12
11	Biostatistics Research ethics and scientific writing Research methodology	15
	total	100