

Solution

Q1	<p>A) True -01 mark, Reason-4 marks</p> <p>B) False -01 mark, Reason-4 marks</p> <p>C) False -01 mark, Reason-4 marks</p> <p>D) False -01 mark, Reason-4 marks</p> <p>E) True -01 mark, Reason-4 marks</p>	
Q2	<p>a Horizontal, Vertical, Diagonal iteration, and final reconstruction</p> <p>b Back Projection, Iterative, analytical. Diagram, Explanation of back projection</p> <p>c CT No. Definition, Formula, Applications</p>	<p>4Mk, each Step 1Mk- Final Ans</p> <p>3Mk</p> <p>3Mk, 4Mk</p> <p>2Mk, 2Mk, 1Mk</p>
Q3	<p>a Explanation of third and fourth generation CT scanners, diagrams</p> <p>b Formula, Steps ($\Delta = 0.012$), Final Answer: 0.402</p> <p>c Formula with Diagram, Steps, Final Answer: 0.426mm</p>	<p>6Mk, 4Mk</p> <p>2Mk, 2Mk, 1Mk</p> <p>2Mk, 2Mk, 1Mk</p>
Q4	<p>a Diag of Input and Output Phosphor, Diag of II Tube and parameters</p> <p>b Differentiation containing any 10 points.</p>	<p>10 Mk,</p> <p>10 Mk</p>
Q5	<p>a Block Diagram, List of Components, explanation</p> <p>b Ring artefact, Motion Artefact, Beam Hardening Artifact, Streak artefact, miscellaneous - explanation</p>	<p>3Mk, 2Mk, 5Mk</p> <p>2Mk each artefact</p>
Q6	<p>a Explanation of working Principle, Applications</p> <p>b Diagram, Working</p> <p>c Advantage, Diagram, explanation</p> <p>d Diagram, Explanation</p> <p>e Diagram, Explanation</p>	<p>2Mk, 2Mk, 1Mk</p> <p>2Mk, 3Mk</p> <p>1Mk, 2Mk, 2Mk</p> <p>2Mk, 3Mk</p> <p>2Mk, 3Mk</p>