Instructions:

1. Answer any FOUR questions.
2. Candidates are advised not to write on the question paper.
3. Candidates must hand in their answer booklets to the invigilator while in the examination room.
QUESTION ONE

a) Outline the THREE components of quality planning in quality management (9 marks)

b) Explain any THREE elements of TQM (6 marks)

QUESTION TWO

a) Explain the functions of TQM based on Deming’s steps (PDCA) (7 marks)

b) Explain the use of the following quality documents and systems
   i) Quality assurance plan
   ii) Quality assurance manual
   iii) Log sheets
   iv) Quality audits (8 marks)

QUESTION THREE

a) It is being recognised that quality product and service are key to survival strategy for any organization, in line with this, enlist worldwide demand on the characteristics of trading corporations that enhance quality production and service delivery (10 marks).

b) Describe the activities that need to be accomplished to achieve customer satisfaction (5 marks)

QUESTION FOUR

a) Explain what is meant by process control (3 marks)

b) Explain the difference between X-chart and R-Chart as applied to quality management (4 marks)

c) In manufacturing process the number of defectives found in the inspection of 15 lots of 400 items is given in table 4.1

<table>
<thead>
<tr>
<th>Lot Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Of defectives</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>14</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>18</td>
<td>8</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

Required:

i) Determine the control limit for the np – chart
ii) Analyse whether the process in control or erratic (8 marks)

QUESTION FIVE

a) Explain the following types of sampling plans in quality management

i) Single sampling plan

ii) Sequential sampling plans (8 marks)

b) Explain the importance of ISO certification to an organization in terms of service delivery and management supervision (7 marks)

QUESTION SIX

Explain the need for the adaptation of the following quality aspects in management

i) Reliability and maintenance

ii) Quality improvements

iii) Trademarks and copyrights (15 marks)