**Compressor Test Paper**

CANDIDATE NAME: ………………………………………….GROUP NO: …………..

PASS

Needs more training: DATE: …………………………..

ASSESSOR: …………………………..*PRINT:* ……………………………….*SIGN*

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| 1 | What is a Compressor?  Takes a gas in at a low pressure and discharges it at a higher pressure |  |
| 2. | What are the four main types of compressor classification  Reciprocating  Rotary  Centrifugal  Axial |  |

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| 3 | Sketch and describe the main differences between them and say how they work. |  |
| 4 | What is the main difference between a single-actingand a double acting reciprocating compressor  It uses both the top and underside of the piston |  |
| 5 | What are the six main components for a compressed air system to ensure good quality air.   * Intake air filters * Inter-stage coolers * After coolers * Air dryers * Moisture drain traps * Receivers |  |
| 6 | Describe how the crankcase oil and compressed air are kept separated in the two types positive displacement reciprocating compressors. (Two descriptions required)  Oil control piston rings  Crosshead bearing and piston rod seals |  |
| 7 | Sketch name and describe the seal arrangement used to separate the low suction and high discharge pressures on a centrifugal compressor impeller.  Labyrinth Seal |  |
| 8 | Sketch and describe the three types of impeller used in a centrifuge compressor.  Open  Semi-open  Enclosed |  |
| 9 | When operating compressor types, if the delivery supply is described as “continuous discharge” for the dynamic compressors. How is the reciprocating compressors discharge described and how can the effect be reduced.  Pulsed Flow  Use a receiver vessel or a snubbing vessel |  |
| 10 | What are the three main types of suction and discharge valves called in a piston type compressor.  Plate Valves  Poppet Valves  Reed Valves |  |
| 11 | In a rotary screw compressor how are the two rotors kept separated to ensure they do not touch.  By using timing or synchroniesing gears |  |
| 12 | What two items are used to control axial thrust on a multi-stage centrifugal compressor rotor.  Thrust tilting pad bearings  Balance piston |  |