**Name……………………………….. Index No …………………Adm.No ………………**

**Class…………………Candidate’s Signature…………………… Date ………………**

**447/2**

**POWER MECHANICS**

**PRACTICALS**

**TIME: 2 ½ HRS**

**KAMDARA JET - 2016**

***INSTRUCTION TO CANDIDATES***

1. *Write your name and index number in the spaces provided*
2. *Sign and write the date of examination in the spaces provided*
3. *There are 10 stations in this examination*
4. *At each station, candidates are not allowed to either review the previous station’s work or read instructions for the other stations*
5. *Attempt all exercises in each station*
6. *All dimensions are in millimeters*

**FOR EXAMINER’S USE ONLY**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| STATIONS |  1 |  2 |  3 |  4 |  5 |  6 |  7 |  8 |  9 |  10 | TOTALSCORE |
| CANDIDATE’S SCORE |  |  |  |  |  |  |  |  |  |  |  |

**STATION 1**

1. In the space provided sketch in good proportion an exploded view of drum brakes slave cylinder.10mks

**STATION 2**

1. Use the materials, tools and equipment provided to make the sheet metal tray shown below 10mks



**STATION 3**

1. Identify the substances in the containers labelled A to E and state the use of each in motor vehicle use (5mks)

Substance Name Application

 A

 B

 C

 D

 E

(b). identify the fasteners F to K (5mks)

Fastener Name Unique feature (application)

 F

 G

 H

 J

 K

**STATION 4**

1. Identify the motor vehicle parts labelled L,M,N,P,Q,,identify one defect and cause (6mks)

Part Name Defect Cause

 L

 M

 N

 P

 Q

(ii). Identify materials labelled 6,7,8,9 and state its application and property (4mks)

Material Name Application Property

 6

 7

 8

 9

**STATION 5**

1. Using the starting system components and cables provided, connect up a complete starting circuit. Let examiner inspect your work. (10mks)

 **STATION 6**

1. Examine the tyre provided and complete the table below
2. Diameter of the tyre
3. Type of tyre construction
4. Width of the tyre
5. Aspect ratio
6. Load rating
7. State condition of tyre

 (b). Name parts of tyre labelled 1,2,3,4

 **STATION 7**

1. Using measuring tools provided, carry out the following exercises
2. Determine maximum compression of engine provided (6mks)
3. Determine the torque at which the torque wrench gives way (2mks)
4. Determine the diameter of gudgeon pin (2mks)

 **STATION 8**

1. Using the ignition system parts provided and cables, connect up a complete ignition system

10mks

 **STATION 9**

1. Carry out the overhaul of provided mechanical fuel pump
2. Report condition of major parts
3. Report general condition of pump

 10mks

 **STATION 10**

1. Carry out the overhaul of provided oil pump 10mks
2. Report condition of each component
3. Test and report condition of the pump