SHRI VAISHNAV POLYTECHNIC COLLEGE, INDORE (M.P.)

CLASS AND YEAR – THIRD YR. MECHANICAL ENGG.

PROGRESSIVE TEST / ASSIGNMENT NO. – ONE

SUBJECT – REFRIGERATION AND AIR CONDITIONING Max. Marks – 10

Note: -

1. LAST DATE FOR SENDING THE ANSWERS IS 24/03/2020.
2. WRITE YOUR NAME AND ROLL NO. THE ANSWER PAPERS AND THEN BY USING CAM SCANNER OR ANY OTHER APP SEND THE pdf COPY OR ANSWERS ON MY EMAIL: meghasvp.indore@gmail.com

Q-1: - EXPLAIN REVERSED CARNOT CYCLE WITH PV-TS DIAGRAM.

Q-2: - EXPLAIN TON OF REFRIGERATION AND SECOND LAW OF THERMODYNAMICS.

Q-3: - EXPLAIN PSYCHOMETRY AND DESCRIBE THE WORKING PRINCIPLE OF SLING PSYCHOMETER.

Q-4: - AN AIR HAVING DRY BULB TEMPERATURE 35°C AND 50% RELATIVE HUMIDITY.

THEN FIND OUT – (1) WET BULB TEMPERATURE (2) SPECIFIC HUMIDITY (3) DUE POINT TEMPERATURE (4) SPECIFIC ENTHALPY (5) SPECIFIC VOLUME (6) PARTIAL PRESSURE OF VAPOUR.

Q-5: - DESCRIBE THE FOLLOWING: -

I. MOIST AIR
II. RELATIVE HUMIDITY
III. SPECIFIC HUMIDITY
IV. DRY BULB TEMPERATURE
V. DUE POINT DEPRESSION

CLASS & YEAR : FINAL YEAR MECHANICAL ENGG

Date : Page :

PROGRESSIVE TEST / ASSIGNMENT NO. - 1

Subject : AUTOMOBILE ENGG. Max. Marks : 10

NOTE :- 1. Last date for sending answer is 24/03/2020

2. Write your name and Roll no. on answer paper then by using cam scanner or any other app send pdf copy of answer on e-mail : mangesh808@gmail.com

Q1. Compare advantage of diesel engine over petrol engine ?

Q2. Explain water cooling method of an internal combustion engine.

Q3. Explain the term IHP, BHP. and mechanical efficiency

Q4. Explain scavenging process in two stroke engine.

Q5. Describe the working of splash lubricating system of IC engine.

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CLASS AND YEAR – THIRD YR. MECHANICAL ENGG.

PROGRESSIVE TEST / ASSIGNMENT NO. – ONE

SUBJECT – DESIGN OF MACHINE ELEMENTS Max. Marks – 20

Note: -

1. LAST DATE FOR SENDING THE ANSWERS IS 24/03/2020.
2. WRITE YOUR NAME AND ROLL NO. THE ANSWER PAPERS AND THEN BY USING CAM SCANNER OR ANY OTHER APP SEND THE pdf COPY OR ANSWERS ON MY EMAIL: jineshsvp@gmail.com

Q-1 Define Factor of Safety. Explain all types of Loads?

Q-2 A Hollow Shafts transmits 400KW at 800 rpm, take the safe stress 60N/mm^2 and factor of safety 1.5. Determine the outer radius of shaft if the ratio of outer radius to inner radius is 1.2.

Q-3 Design a Cotter Joint for a load of 200KN, allowable stresses in Tension, Shear and Crushing are 80N/mm^2, 60N/mm^2 and 120N/mm^2 respectively.

Q-4 Design a Knuckle joint to transmit a load of 150KN. The design stresses are 75MPa in tension, 60MPa in shear and 150MPa in compression.