



Registration No.....

**SCHOOL OF AUTOMOTIVE SKILLS**  
**FIRST IN-SEMESTER EXAMINATION, *FIRST SEMESTER,***  
**WINTER SEMESTER, B.VOC. PROGRAM, SESSION: 2017-18**

**Course Code: AUT1001**

**Time: 1 Hour**

**Course name: Automotive Power Train Chassis & Suspension**

**Max. Marks: 20**

**Instructions: Attempt all questions.**

**Section (A)**

**5X1=5 Marks**

**Directions: Select any one correct answer from the given options:**

Q1. When volume inside the cylinder decreases, pressure...

- a. Increases
- b. Decreases
- c. Constant
- d. None of these

Q2. Full form of EGR is ...

- a. Exit gas recycling
- b. Exhaust gas recirculation
- c. Exhaust gas reducer
- d. Exit gasoline recycle

Q3. Bore is defined as...

- a. Distance between TDC & BDC
- b. Diameter of the cylinder
- c. Volume of the cylinder
- d. None of these

Q4. Full form of PCV is...

- a. Positive crankcase ventilation valve
- b. Pre circulation valve
- c. Positive circulation valve
- d. Piston cylinder valve

Q5. The chemical formula of carbon dioxide...

- a. CO
- b. CO<sub>2</sub>
- c. C<sub>2</sub>O
- d. (CO)<sub>2</sub>

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**Section (B)**

**3X2=6 Marks**

- Q6. Define the term clearance volume and swept volume. Also write the formula of compression ratio.
- Q7. Write four differences between four stroke & two stroke engine.
- Q8. Draw the schematic PV diagram of Otto cycle and mention the process occurs during the cycle.

**Section (C)**

**3X3=9 Marks**

- Q9. Write down the steps involved in the process of Engine Oil Changing during general service.
- Q10. Define Engine. Explain different types of internal combustion engine.
- Q11. Explain the working of four stroke engine with a diagram.



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**FIRST IN-SEMESTER EXAMINATION, <sup>1<sup>st</sup> Semester</sup>**  
**WINTER SEMESTER, B. VOC. PROGRAM**  
**SESSION 2017-2018**

**Course Code: AUT1002**

**Course Name: Automotive Wheel Care & Steering system**

**Instructions: Attempt all questions.**

**Time: 1 Hour**

**Max. Marks: 20**

**Section-A**

**Directions: Select any one correct answer from the given options:**

**5x1 =05 Marks**

Q 1. Purpose of the wheel axle in a vehicle is:

- |  |                               |
|--|-------------------------------|
| A) To cool the engine                  | C) To give power on fly wheel |
| B) To give structural support to wheel | D) For air inlet              |

Q 2. Function of tread in a tyre is:

- |                               |                        |
|-------------------------------|------------------------|
| A) To give better look        | C) To Provide friction |
| B) To give structural support | D) To improve strength |

Q 3. Why wheel balancing is required? Select Any Two:

- |                       |                  |
|-----------------------|------------------|
| A) Removing Vibration | C) Locking wheel |
| B) Removing Tyre Wear | D) None of These |

Q 4. Material of the car wheel is:

- |            |                       |
|------------|-----------------------|
| A) Plastic | C) Pressed steel disk |
| B) Wood    | D) Copper             |

Q 5. The popular type of tyre in modern vehicle is:

- |               |               |
|---------------|---------------|
| A) Tube type  | C) Tube less  |
| B) Solid iron | D) Wood wheel |

**Section-B**

**3x2 =06 Marks**

Q 6. Write difference between tools and equipment.

Q 7. Write the different types of tools briefly which are used in wheel care.

Q 8. Write briefly about Safety Equipment which is required in wheel care section.

**Section-C**

**3x3 =09 Marks**

- Q 9. Write the name of components of a steering system and explain them.
- Q 10. Write the different types of Tyre based on session and explain.
- Q 11. Explain the role of a technician in Automotive Wheel Care.



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**FIRST IN-SEMESTER EXAMINATION, 1<sup>st</sup> Semester**  
**WINTER SEMESTER, B. VOC. PROGRAM**  
**SESSION 2017-2018**

Course Code: AUT1003

Time: 1 Hour

Course Name: AUTOMOTIVE BODY REPAIR

Max. Marks: 20

Instructions: Attempt all questions.

**Section-A**

Directions: Select any one correct answer from the given options:

(5x1=05) Marks

- 1.) Front body section of a car is also called .....
  - a) Doghouse
  - b) Greenhouse
  - c) Cathouse
  - d) None of the above
- 2.) A structure design in which the frame and body are built as a single integrated structure is called.....
  - a) Backbone
  - b) Ladder
  - c) Monocoque
  - d) All of the above
- 3.) Which of the following is not a part of body sections?
  - a) Bonnet
  - b) Fender
  - c) Spoiler
  - d) Wheel
- 4.) ..... is a device which reduces lift and increases downforce.
  - a) Bumper
  - b) Windshield
  - c) Door
  - d) Spoiler
- 5.) What is the colour code of warning sign?
  - a) Blue
  - b) Green
  - c) Yellow
  - d) Red

**Section-B**

(3x2=06) Marks

- 6.) Write the different tools and equipment used in Body Repair Shop.
- 7.) Who is an Auto Body Repairer?
- 8.) Describe chassis in brief.

**Section-C**

(3x3=09) Marks

- 9.) What is the requirement of a Body Shop in an automotive workshop?
- 10.) Explain the different types of automotive body styles in India with examples.
- 11.) Discuss the types of car body pillar.

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**FIRST IN-SEMESTER EXAMINATION, 1<sup>st</sup> Semester**  
**WINTER SEMESTER, B. VOC. PROGRAM**  
**SESSION 2017-2018**

**Course Code: AUT1004**

**Time: 1 Hour**

**Course Name: AUTOMOTIVE SPRAY PAINTING**

**Max. Marks: 20**

**Instructions: Attempt all questions.**

**Section-A**

**5x1 =05 Marks**

**Direction : Select the one correct option from the given options in the following questions :-**

Q-1. The full form of DFT is...

- |                         |                        |
|-------------------------|------------------------|
| a. Dry film thickness   | c. Dull film thickness |
| b. Depth film thickness | d. None of these       |

Q-2. Which place is used to mix the paint in a workshop?

- |                       |                        |
|-----------------------|------------------------|
| a. Inside Paint booth | c. Outside paint booth |
| b. Paint mixing room  | d. None of the above   |

Q-3. Which place is used for final painting?

- |                 |                      |
|-----------------|----------------------|
| a. Paint booth  | c. Paint mixing room |
| b. Sanding room | d. None of the above |

Q-4. Sanding process is required to...

- |                     |                      |
|---------------------|----------------------|
| a. Even the surface | c. Both (a) and (b)  |
| b. Fill the holes   | d. None of the above |

Q-5. Which substance acts as a bonding agent?

- |                   |                  |
|-------------------|------------------|
| a. Putty          | c. Hardener      |
| b. Surface Primer | d. None of these |

**Section-B**

**3x2=6 Marks**

Q-6. Write down the advantages of paint booth.

Q-7. What is putty and write its different types?

Q-8. What are the responsibilities of a paint shop technician?

**Section-C**

**3x3=9 Marks**

Q-9. What is infrared ? Write advantages of infrared dryer.

Q-10. What is primer? Explain different properties of primer.

Q-11. What is dry sander? Explain different components of pneumatic dry sander.



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**FIRST SEMESTER, FIRST IN-SEMESTER EXAMINATION**

**WINTER SEMESTER, B.VOC. PROGRAM- 2017-18**

**Course Code: AUT1005**

**Time: 1 Hour**

**Course name: Comfort System**

**20**

**Instructions: Attempt all questions.**

**Section-A**

**Direction: Select anyone correct answer from the given options:**

**(5 X 1 = 5) Marks**

1. 33 K in °C is:
  - a) 206
  - b) 306
  - c) 240
  - d) 340
  
2. Refrigerant used in the cars nowadays is:
  - a) R410
  - b) R32
  - c) R132a
  - d) R134a
  
3. Evaporator in the car is located:
  - a) Under the deck dashboard
  - b) In front of radiator
  - c) Under the chassis
  - d) In the trunk
  
4. In open system:
  - a) Heat and mass both can be transferred.
  - b) Only heat can be transferred.
  - c) Only mass can be transferred.
  - d) Neither heat nor mass can be transferred.
  
5. Work transferred to the system is:
  - a) Positive.
  - b) Negative
  - c) Zero.
  - d) Infinity.

**Section-B**

**(3\*2= 06) Marks**

1. Define heat, enthalpy, stress, pressure and also give their sign conventions.
2. Write the reactions of the following:
  - a) Ozone layer formation.
  - b) Absorption of UV rays.
3. Covert 37 °C into Fahrenheit

**Section-C**

**(3\*3 = 9 Marks)**

4. Differentiate between heat engine, Refrigeration and Heat pump with a diagram and write expressions for efficiency.
5. Write three points each for the causes and consequences of global warming.
6. Explain refrigeration cycle and also write components of refrigeration cycle and their functions.



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FIRST SEMESTER, FIRST IN-SEMESTER EXAMINATION

WINTER SEMESTER, B.VOC. PROGRAM- 2017-18

Course Code: AUT1006

Time: 1 Hour

Course name: Automotive Workshop Maintenance and Documentation Max. Marks: 20

Instructions: Attempt all questions.

Section-A

Direction: Select anyone correct answer from the given options:

5 X 1 = 5 Marks

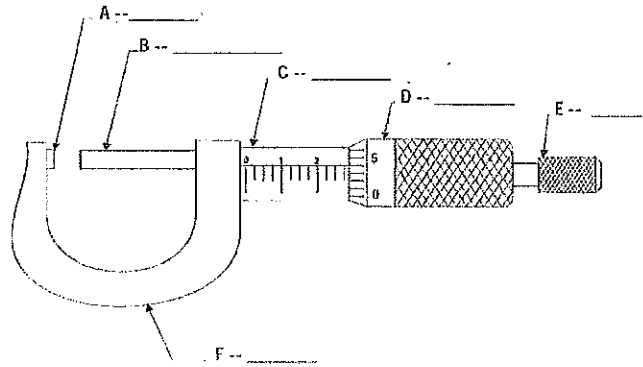
1. (a) The function of the lower jaws of Vernier Caliper is to measure the ..... diameter of an object such as a tube, sphere or cylinder. (inner/outer).  
(b) The function of the upper jaws of Vernier Caliper is to measure the..... diameter of an object such as a tube, pipe or hollow cylinder. (inner/outer).
2. (a) The minimum measurement that can be taken by an instrument is known as:  
i. Least count      ii. High count      iii. Low count      iv. Maximum count  
(b) Least count of a micrometer is:  
i. 0.002      ii. 0.001      iii. 0.01      iv. 0.02
3. (a) The angle between top face of cutting point and normal to work surface at cutting edge is known as ..... (Clearance/Rake) angle.  
(b) The major parts of a hammer are a ..... (Face/Head) and a handle.
4. (a) ..... (Cross-Cut/Flat) chisels are used to remove metal from large surfaces.  
(b) Spanners are used for operating.....(Threaded fasteners/Nails)
5. (a) The cold chisel is a hand cutting tool used by fitters for .....(chipping/filing).  
(b) Still son pipe wrenches are used for gripping and turning of..... (pipes/bolts).

Section-B

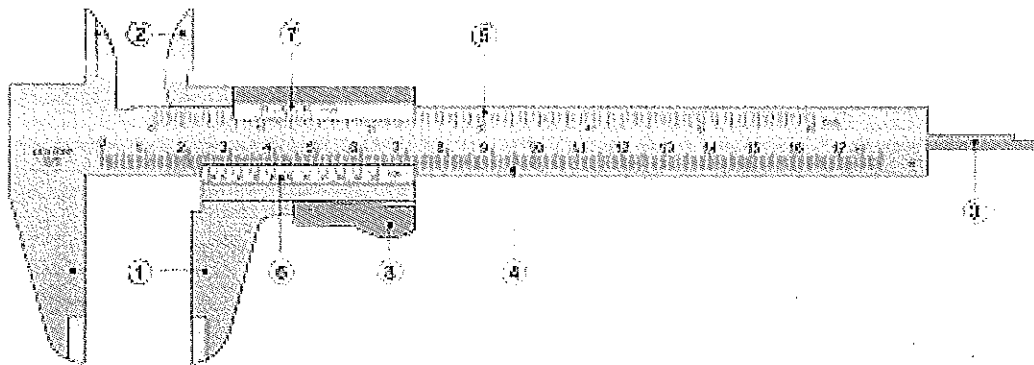
3 X 2= 6 Marks

6. What is meant by least count? Calculate the least count of a Vernier Caliper.

7. Label the parts of the figure given below.



8. Label the parts of the figure given below.



### Section-C

3 X 3= 9 Marks

9. What is meant by calibration and why is it required?
10. Explain the steps involved in using a Vernier Caliper while measurement.
11. List the types of chisel used in hand-skills. Draw the diagrams of any three types of chisel.