

**IV B.Tech. I Semester Regular Examinations, November -2005**  
**AUTOMBILE ENGINEERING DRAWING**  
**(Automobile Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. (a) Draw the following types of thread forms to the suitable scale: [10]
  - i. Acme thread
  - ii. Whitworth thread
- (b) Draw the single start left hand threads of any type of thread form to the suitable scale. [6]
2. Draw the following nuts for the 25 mm diameter bolts to the standard dimensions.
  - (a) Dome Nut [5]
  - (b) Cap Nut [5]
  - (c) Cylindrical Nut [6]
3. (a) Draw proportionately the Cheese headed bolt . Take diameter of the bolt as 25 mm. [6]
- (b) Draw proportionately the Rag type of foundation bolt. Take the diameter of the bolt as 25 mm. [10]
4. (a) Draw Pan Head Rivet of diameter 25 mm. [6]
- (b) Draw to a full size, a single riveted butt joint with double cover plate showing the zig-zag arrangement of rivets in the rows. Take the thickness of the butting plates as 12 mm and the nominal diameter of the rivet as 22 mm. [10]
5. Draw the sectional front view and top view of the sleeve and cotter joint to connect the two shafts of 25 mm diameter [16]
6. Draw the front view of the protected type flanged coupling for 50 mm shafts. [16]
7. Sketch and label the important components of Master Cylinder. [16]
8. Draw the cross sectional view of the fuel injector and mention the important parts of it. [16]

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1. (a) Draw the following types of thread forms to the suitable scale: [10]
  - i. Knuckle thread
  - ii. B A thread(b) Draw the single start right hand threads of any type of thread form to the suitable scale. [6]
2. Draw the following nuts for the 25mm diameter bolts to the standard dimensions.
  - (a) Square Nut
  - (b) Capstan Nut
  - (c) Dome Nut [16]
3. (a) Draw proportionately the Eye bolt. Take diameter of the bolt as 25mm. [6]  
(b) Draw proportionately the Lewis type of foundation bolt. Take the diameter of the bolt as 25mm. [10]
4. (a) Draw Flat Counter Sunk Head Rivet of diameter 25mm. [6]  
(b) Draw to a full size, a double riveted lap joint with the zig-zag arrangement of rivets in the rows. Take the thickness of the plates as 12 mm and the nominal diameter of the rivet as 22 mm. [10]
5. Draw the half sectional front view and top view of the socket and spigot joint for connecting the two rods of 25 mm diameter. [16]
6. Draw the half sectional front view of the solid flanged coupling for 50 mm shafts. [16]
7. Sketch any two types of stub axles and label the important parts of it. [16]
8. Sketch the pneumatic governor to regulate the speed of the diesel engine. Label the important components. [16]

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1. (a) Draw the following types of thread forms to the suitable scale [10]
  - i. Buttress thread
  - ii. Seller's thread
- (b) Draw the double start left hand threads of any type of thread form to the suitable scale. [6]
2. Draw the following nuts for the 25mm diameter bolts to the standard dimensions.
  - (a) Flanged Nut [5]
  - (b) Ring Nut [5]
  - (c) Cap Nut [6]
3. (a) Draw proportionately the Counter sunk headed bolt. Take diameter of the bolt as 25 mm. [6]
- (b) Draw proportionately the Loop type of foundation bolt. Take the diameter of the bolt as 25mm. [10]
4. (a) Draw Rounded Counter Sunk Head Rivet of diameter 25mm. [6]
- (b) Draw to a full size, a double cover single riveted butt joint showing rivets in the rows. Take the thickness of the butting plates as 12mm and the nominal diameter of the rivet as 22 mm. [10]
5. Draw a front view and top view of Knuckle joint for 25 mm rods. [16]
6. Draw the half sectional front view and half sectional side view of the split muff coupling for 50mm shafts. [16]
7. Sketch and label the important components of Wheel Cylinder. [16]
8. Sketch and label the various components of any one type of fuel injection. [16]

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1. (a) Draw the following types of thread forms to the suitable scale: [10]
  - i. British Association thread
  - ii. Acme thread
- (b) Draw the double start right hand threads of any type of thread form to the suitable scale. [6]
2. Draw the following nuts for the 30 mm diameter bolts to be standard dimensions.
  - (a) Square Nut [5]
  - (b) Ring Nut [5]
  - (c) Cylindrical Nut [6]
3. (a) Draw proportionately the Lifting bolt. Take diameter of the bolt as 25 mm. [6]
- (b) Draw proportionately the Cotter type of foundation bolt. Take the diameter of the bolt as 25 mm. [10]
4. (a) Draw Snap Head type of Boiler Rivet of diameter 25 mm. [6]
- (b) Draw to a full size, a double riveted lap joint showing the chain riveting. Take the thickness of the plates as 12 mm and the nominal diameter of the rivet as 22 mm. [10]
5. Draw the front view and top view of the pin joint for 25 mm rods. [16]
6. (a) Draw the front view of the half lap muff coupling for 50 mm shafts. [8]
- (b) Draw the front view of the bushed bearing for 50mm shafts. [8]
7. sketch and label the various parts of spark plug. [16]
8. Sketch and label the various components of Zenith Carburetor. [16]

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