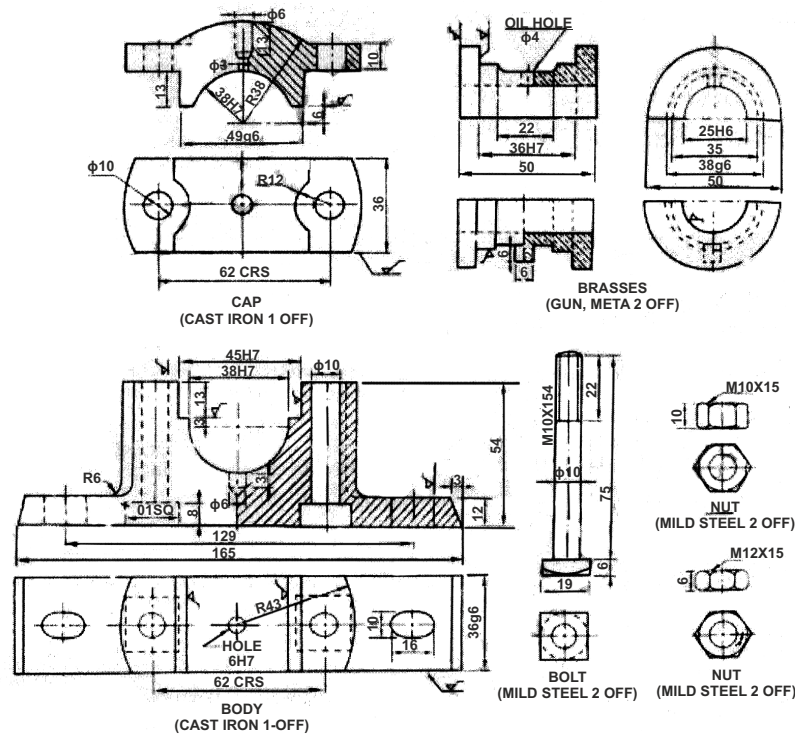


The minimum radius of cam is 55mm the outward and inward strokes of the follower are to take place with uniform velocity. (CO-4)

- Q.18 Draw the profile of involute teeth for a gear having 26 teeth and D.P. Is equal to 3 cm as unit length. Assume pressure angle 24° (CO-4)
- Q.19 Draw front and side view of roller bearing by assuming appropriate dimensions? (CO-3)
- Q.20. Figure shows drawing of plumber block components, make assembly drawing front and top view only. (CO-3)



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4th Sem,
Branch : Automobile Engineering
Subject : Automobile Engineering Drawing

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note : Multiple choice questions. All questions are compulsory. (10x1=10)

- Q.1 Limit gauges are used to _____.
a) Measure the flatness of the components.
b) Measure the exact size of the component.
c) Check if the component dimension lies within permissible limits.
d) Measure surface roughness of the component
- Q.2 What is 'IT' in systems of fits?
a) The basic size of hole
b) The basic size of shaft
c) tolerance grade
d) Standard tolerance factor
- Q.3 Oldham coupling is used to connect two shafts having intersecting axes.
a) True b) False
- Q.4 The angle between the direction of the follower motion and a normal to the pitch curve is called
a) Pitch angle b) Prime angle
c) Base angle d) Pressure angle

- Q.5 In a radial cam, the follower moves
- In a direction perpendicular to the cam axis
 - In a direction parallel to the cam axis
 - In any direction irrespective of the cam axis
 - Along the cam axis
- Q.6 Offset is provided to a cam follower mechanism to
- Minimize the side thrust
 - Accelerate
 - Avoid jerk
 - None of the mentioned
- Q.7 Which of the following can be used for power transmission in intersecting shafts.
- Spur Gear
 - Helical Gear
 - Bevel Gear
 - None of the listed
- Q.8 Minimum clearance is the difference between _____ size of the hole and the _____ size of the shaft.
- Minimum, maximum
 - Minimum, minimum
 - Maximum, maximum
 - Maximum, minimum
- Q.9 In the hole and shaft pair designation of 40H7/d9, the numbers 7 and 9 indicate _____.
- Tolerance grade
 - Tolerance size
 - Ease of assembly
 - Limits
- Q.10 What does '50' represents in 50H8/g7?
- Basic size
 - Actual size
 - Maximum Limit
 - Minimum limit

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SECTION-B

Note : Attempt any five questions. Each carries two marks
(2x5=10) (CO-2)

- Q.11 Write any two types of cam?
- Q.12 Define dedendum circle?
- Q.13 What is the function of master cylinder.
- Q.14 What is the function of wheel cylinder?
- Q.15 Name any two component of battery ignition system?
- Q.16 Write any two difference between top and side valve mechanism?

SECTION-C

Note : Draw free hand sketch of any two.(10x2=20)
(CO-03)

- Q.17 Side valve mechanism.
- Q.18 Camshaft.
- Q.19 Crank shaft of single cylinder.

SECTION-D

Note : Attempt any two questions, each carries 30 marks.
(30x2=60)

- Q.17 Draw the profile of the cam to give following motion to the knife edge follower having center in line with cam with stroke height of 65 mm.
- Follower to move outward/ rise during 90° of cam rotation.
 - Follower to dwell for 60° of cam rotation.
 - Follower to return its original position 120° of cam rotation.
 - Follower of dwell for the remaining rotation of the cam.

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