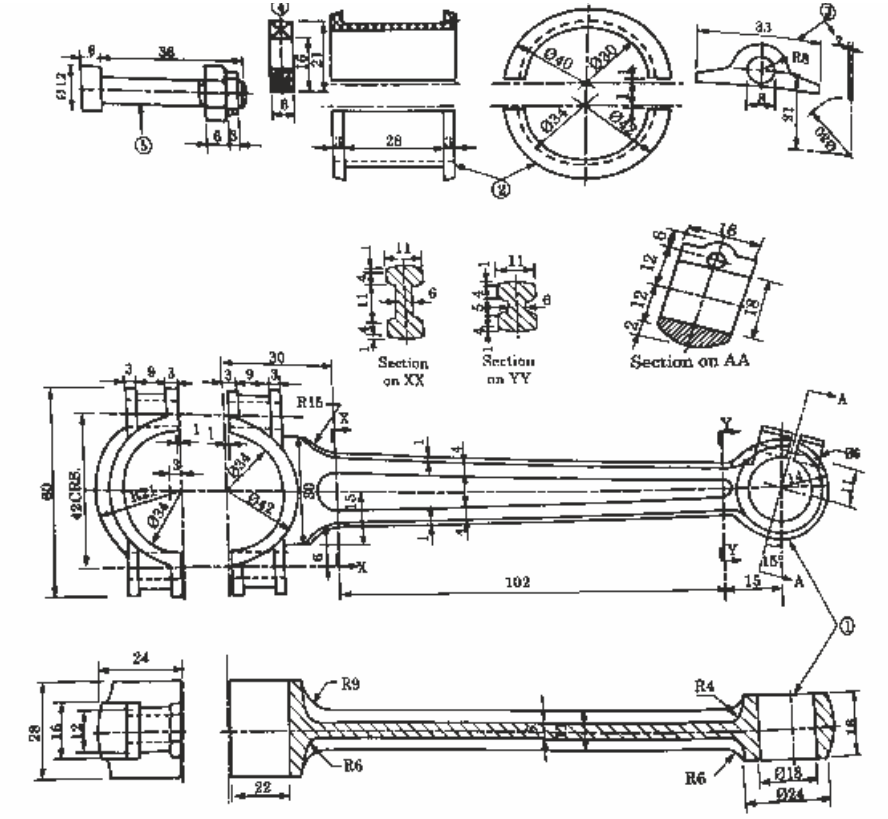
Q.21 Figure below shows the detail of a connecting rod of an I.C. Engine. Assemble the parts and draw the following views. Also give the bill of material.(CO2)

a) Front view full in section

b) Left side view.



Q.22 Draw front view and side view half in section of four stroke petrol engine piston. (CO-1)

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4th Sem / Branch : Automobile Engineering Drawing

Sub.: Automobile Engineering Drawing

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The relation between mating parts is called_____ (CO-3)

a) Connection b) Fits

c) Joints d) Link

Q.2 The difference between the maximum and minimum permissible limits of the size if called _____. (CO-3)

a) Deviation b) Allowance

c) Tolerance d) Actual deviation

Q.3 The difference between the maximum material limits of th mating parts is called_____. (CO-3)

a) Deviation b) Allowance

c) Tolerance d) Actual deviation

Q.4 Minimum clearance is the difference between _____ size of the hole and the _____ size of the shaft. (CO-3)

a) Minimum, maximum

b) Minimum, minimum

c) Maximum, maximum

d) Maximum, minimum

Q.5 In bushed journal bearings, the material used to make the bush is _____. (CO-2)

a) Hard materials b) High carbon steel
c) Heat treated steel d) Soft materials

Q.6 Long shafts which need bearings for support but cannot be fit from the end. Then which of the following is used? (CO-2)

a) Solid journal bearings
b) Bushed journal bearings
c) Plummer block
d) Bracket bearings

Q.7 Buckling is found in which part of the engine?(CO2)

a) Intake manifold b) Piston
c) Glow plug d) Connecting rod

Q.8 The loads supported by an automobile frame are _____. (CO-2)

a) Weight of the body, passengers and cargo loads
b) Torque from engine and transmission
c) Sudden impacts from collisions
d) All of the mentioned

Q.9 Product of diametric pitch and circular pitch is? (CO-3)

a) b) 1/
c) None of the listed d) 2

Q.10 The size of a cam depends upon (CO-1)

a) Base circle b) Pitch circle
c) Prime circle d) Pitch curve

SECTION-B

Note: Attempt any five questions, each carries two marks (2x5=10)

Q.11 Define base circle. (CO-2)

Q.12 Write the types of tolerances. (CO-3)

Q.13 Show clearance fit by drawing. (CO-3)

Q.14 Define dwell is case of cam. (CO-2)

Q.15 Show face and land on a gear tooth drawing. (CO-1)

Q.16 Name th two ends of connecting rod. (CO-2)

SECTION-C

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

Q.17 Overhead valve mechanism. (CO-1)

Q.18 Bush bearing. (CO-1)

Q.19 Shock Absorber. (CO-2)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (30x2=60)

Q.20 Draw the profile of involute teeth by Proof. Unwin's method having 24 teeth, module patch 8mm and pressure angle 220. Draw at least three teeth and label all the circles. (CO-1)