3rd Sem / Automobile Engineering

Subject:- Auto Engineering Drawing

Time : 3Hrs.   M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory   (6x1=6)

Q.1 The difference between the maximum and minimum permissible limits of the sizes is called _____ (CO-1)

a) Deviation   b) Allowance

c) Tolerance   d) Actual deviation

Q.2 The number of forks in universal coupling are _____ (CO-1)

a) 1   b) 2

c) 3   d) 4

Q.3 The relationship that results between the two mating parts before assembly is called _____.   (CO-1)

a) Limit   b) Fit

c) Tolerance   d) Allowance

Q.22 Draw free hand universal joint.   (CO-1)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions.   (2x8=16)

Q.23 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 60mm.   (CO-3)

a) Follower to move outward/rise during 120 of cam rotation.

b) Follower to dwell for 45 of cam rotation.

c) Follower to return its original position 90 of cam rotation.

d) Follower of dwell for the remaining rotation of the cam. The minimum radius of cam is 35mm the outward and inward strokes of the follower are to take place with uniform velocity.

Q.24 Draw two views of Diesel engine piston by taking appropriate dimensions.   (CO-1)

Q.25 Draw the profile of involute teeth for a gear having 24 teeth and Dimensional pitch is equal to 2 cm. as unit length. Assume pressure angle 24.   (CO-2)

(Note : Course outcome/CO is for office use only)

Q.4 In tolerances the upper case letters are used for
_____ (CO-1)

a) Holes

b) Shafts

c) For both shafts and holes

d) none of these

Q.5 In the hole and shaft pair designation of 25 H5/d8,
the numbers 5 and 8 indicate _____ (CO-1)

a) Tolerance grade   b) Tolerance size

c) Ease of assembly   d) limits

Q.6 In an involutes gear, the base circle must be _____
(CO-1)

a) Under the pitch circle

b) above the pitch circle

c) At root circle

d) under the root circle

SECTION-B

Note: Objective/Completion type questions. All questions
are compulsory. (6x1=6)

Q.7 Basic dimension is known as _____ (CO-1)

Q.8 Module is given by _____ (CO-1)

Q.9 Define P.C.D. of a gear. (CO-2)

Q.10 _____ type of gear will have minimum axil
thrust. (CO-1)

Q.11 Define flank of a gear. (CO-2)

Q.12 Name any four components of Battery Ignition
system. (CO-1)

SECTION-C

Note: Short answer type questions. Attempt any eight
questions out of ten questions. (8x4=32)

Q.13 Explain any two allowances given for machining.
(CO-1)

Q.14 Explain interference fit with a neat sketch. (CO-1)

Q.15 Define P.C.D. of gear. (CO-2)

Q.16 Define Dedendum of a gear. (CO-1)

Q.17 Explain the module. (CO-2)

Q.18 Define flank of a gear. (CO-2)

Q.19 Define prime circle. (CO-1)

Q.20 Define follower. (CO-2)

Q.21 Define and draw overhead valve mechanism. (CO-1)