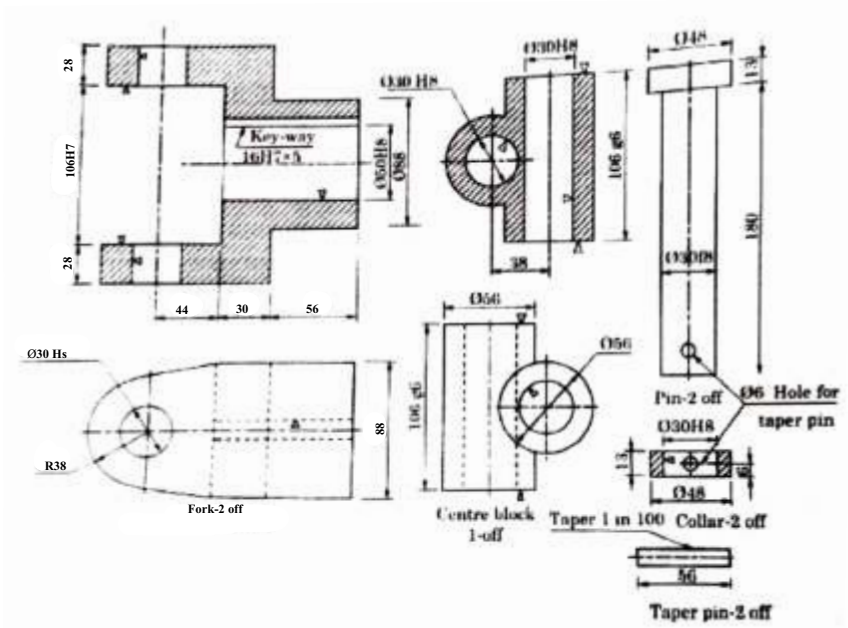

Details of universal coupling

Q.24 Explain and define the terms

(1) Cam profile

(2) Base circle

(3) Prime circle

(4) Pitch curve

(5) Lift and period of dwell

(6) Angular Velocity

Q.25 Draw the profile of involute teeth for a gear having 20 teeth and diameter pitch 0.8 tooth/mm. Assume pressure angle = 20°. Use tracing paper method.

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3rd Sem / Branch : Automobile

Sub.: Auto Engineering Drawing

Time : 3Hrs. M.M. : 60

SECTION-A

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

Q.1 Upper case letters for tolerances are used for

a) Shafts b) Holes

c) Both shafts and holes d) Both shafts and holes

Q.2 How many fork's are there in universal coupling?

a) 1 b) 4

c) 3 d) 2

Q.3 The smallest circle which is drawn to the pitch curve from the centre of rotation of cam is known as

a) Pitch circle b) Prime circle

c) Base circle d) None of the above

Q.4 Polactical application of CAM are in

a) Gear cutting machine

b) Pointing machinery

c) Bobbing attachment of sewing machine

d) All of the above

Q.5 Which of the following gear system have minimum axial thrust?

a) Spur b) Helical

c) Bevel d) Double helical

Q.6 Basic hole is that whose

a) Upper deviation is zero

b) Lower deviation is zero

c) Both deviation are zero

d) None of the above

SECTION-B

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

Q.7 In _____ Fit, the tolerance zone of shaft and hole overlap.

Q.8 Universal coupling comes under the category of____.

Q.9 The period in which there is no movement of cam follower for cam rotation is called_____.

Q.10 In case of hypoid gears, the mutual position of shafts is _____.

Q.11 Module is given by _____.

Q.12 Basic dimension is also known as _____.

SECTION-C

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

Q.13 Define limits of size.

Q.14 Define circular pitch of gear.

Q.15 Give the types of cam motions.

Q.16 Classify Couplings.

Q.17 What do you mean by involute teeth?

Q.18 Define dedendum and addendum.

Q.19 Classify follower according to their motion.

Q.20 Name different types of ball bearing and application of ball bearing.

Q.21 Write the difference between Hole basis and Shaft basis system.

Q.22 What is cam profile?

SECTION-D

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

Q.23 Detail drawing of universal coupling as shown in fig. Study the views carefully and draw the following views imagining the parts assembled together:

i) Front view

ii) Top view-full in section