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Question Paper Code: 44706

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fourth Semester

Mechanical Engineering

14UME406 – MACHINE DRAWING

(Regulation 2014)

Duration: 1:15hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

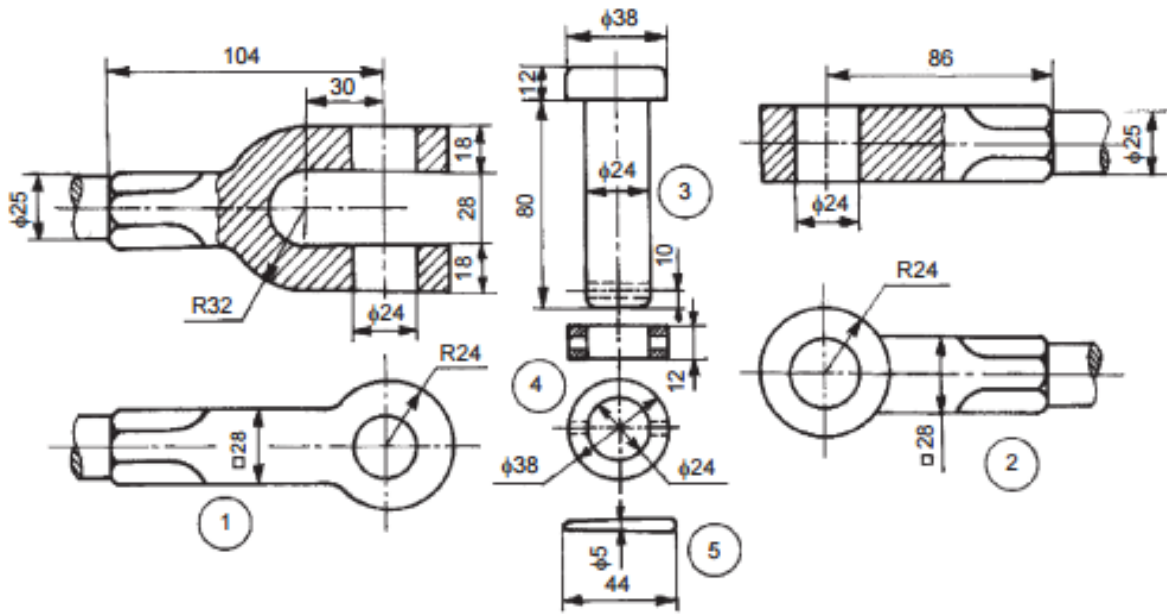
1. The section view drawing in which one fourth of an object has been marked for removal is known as a _____ section. CO1- R
(a) full (b) half (c) quarter (d) none of the above
2. Objects that are symmetric can be shown effectively using this type of section CO1 -R
(a) Quarter section (b) Half section (c) Full section (d) Symmetric section
3. When only a small section of an interior area needs to be revealed the drafter can use a _____ section. CO2 -R
(a) half (b) quarter (c) full (d) broken out
4. In the hole and shaft pair designation of 40 H7/d9, the numbers 7 and 9 indicate _____. CO2 -R
(a) tolerance grade (b) accuracy of manufacture
(c) ease of assembly (d) none of the above
5. Peaks and valleys of surface irregularities are called _____. CO3- R
(a) waves (b) manifolds
(c) asperities (d) perspectives
6. In a shaft basis system, the upper deviation of the size of the shaft is _____. CO3- R
(a) 1 (b) not related to size (c) less than (d) 0
7. Which property is not required for shaft materials? CO4 -R
(a) High shear and tensile strength (b) Good machinability
(c) High fatigue strength (d) Good castability

8. Which of the following act on shafts?. CO4- R
- (a) Torsional moment (b) Bending Moment
(c) Both torsional and bending (d) None of the mentioned
9. The bolt which is used where the head of a bolt must not project above the surface of the connected piece is_____ CO5 -R
- (a) Stud-bolt (b) Tap-bolt or cap screw
(c) T-headed bolt (d) Countersunk-headed bolt
10. The surface texture depends to a large extent on _____. CO5 -R
- (a) . material composition (b) type of manufacturing operation
(c) the skill of the operator (d) accuracy of measurement

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Sketch the actual and conventional representation for the following elements: (8)
external thread, splined shaft, helical tension spring, chain wheel and bearing.
12. Explain in detail about the selection of fits with examples (8)
13. Compare and contrast the permanent and temporary fastening system with suitable examples.. (8)
14. Sketch and illustrate the terminologies of surface finish / profile. (8)
15. Assemble the parts of a knuckle joint, shown in figure and draw, (i) sectional view from the front and (ii) view from above. (8)



Parts list

Sl. No.	Name	Matl.	Qty.
1	Fork end	Forged steel	1
2	Eye end	Forged steel	1
3	Pin	Mild steel	1
4	Collar	Mild steel	1
5	Taper pin	Mild steel	1