AUTOMOBILE ENGINEERING DRAWING 4th Exam/Auto/9300/NOV'18

Duration: 3Hrs. M.Marks:75

SECTION-A

Note: Attempt any four questions. Question 1 is compulsory.

Q1. Draw free hand sketch of following.

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- a. Battery ignition system
 - b. Overhead valve mechanism
- Q2. A gear has 32 teeth, circular pitch 26mm and pressure angle 20°. Draw different circles of the gear and show 5 teeth.
- Q3. A cam is to be designed for a knife edge follower with the following data. 20
 - a. Cam lift= 60mm during 90° of cam rotation with simple harmonic motion.
 - b. Dwell for next 30°.
 - c. During the next 60° of cam rotation the follower return to original position with simple harmonic motion.
 - d. Dwell during the remaining 180°.

Draw the profile of the cam when the line of the stroke of the follower passes through the axis of the cam shaft. The radius of the base circle of the cam is 50mm. (Also write steps)

- Q4. a) Draw free hand sketch of spark plug. 10 b) Explain different types of Fits with diagram. 10
- Q5. Detailed drawing of bushed bearing is shown in fig.1.Draw the following views. 20
 - a. Front view full section
 - b. Top view
- **Q6.** Detailed drawing of Crank shaft is shown in fig.2.Draw the following views.
- 20

- a. Front view
- b. Side view

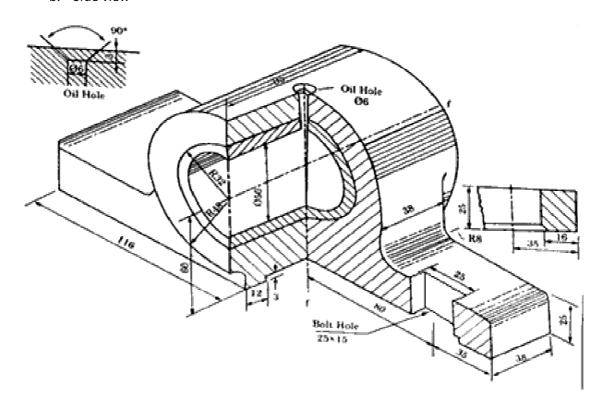


FIG-1

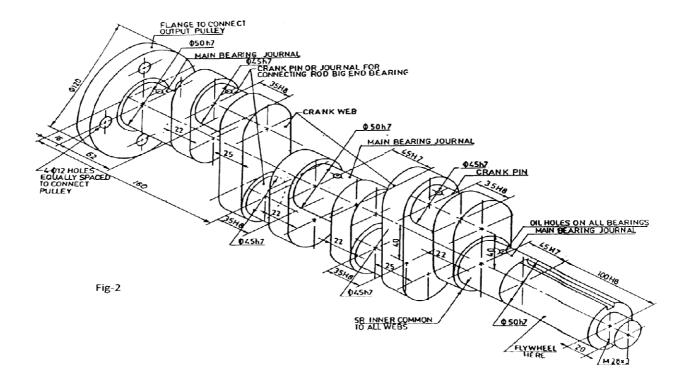


FIG-2