CLASS: BE   SEMESTER : V
BRANCH: CIVIL   SESSION : MO/19

SUBJECT: CE5001 STRUCTURAL ANALYSIS II

TIME: 3:00 HOURS   FULL MARKS: 60

INSTRUCTIONS:
1. The question paper contains 7 questions each of 12 marks and total 84 marks.
2. Candidates may attempt any 5 questions maximum of 60 marks.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1   A Continuous beam ABC 10m long rests on support A,B and C at the same level and is loaded as shown   [12]
        in fig (1) Determine the moments over the beam. Also calculate the reactions at the supports. Use
   three moment theorem.

Fig (1)
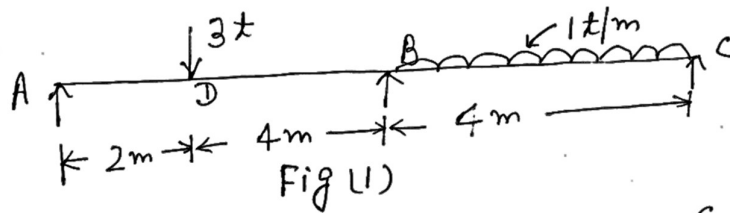
Q.2   Determine the influence line for RA for continuous beam shown in fig (2) compute the ordinates at   [12]
        every Im Interval.



Fig (2)
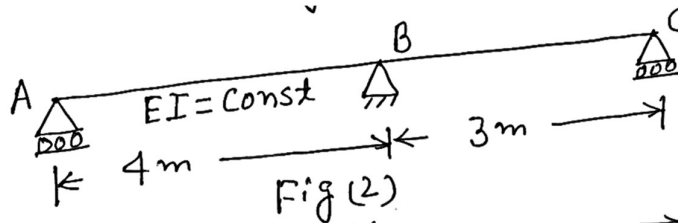
Q.3(a) What is the determinacy of propped cantilever beam?   [3]
Q.3(b) A beam AB 4m long in fixed at A and simply supported at B. it carries a point load of 16KN at distance [9]
        of Im from B. Determine the reaction at B by the principle of least work.

Q.4   Find the reaction at the roller support of the given system show nin fig (3) by the system flexibility [12]
        method.

Fig (3)
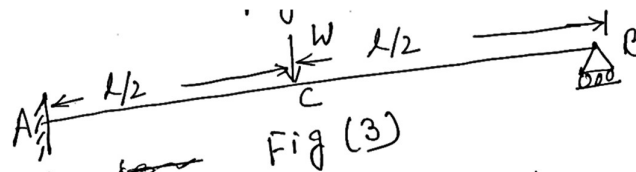
Q.5   A two hinged semicircular arch of radius R carries a concentrated load W at the crown. Show that the [12]
        horizontal thrust is $\frac{W}{\pi}$ assume uniformly flexural rigidity.

Q.6   Analysis the continuous beam shown in fig (4) using slope deflection method.   [12]

Fig (4)
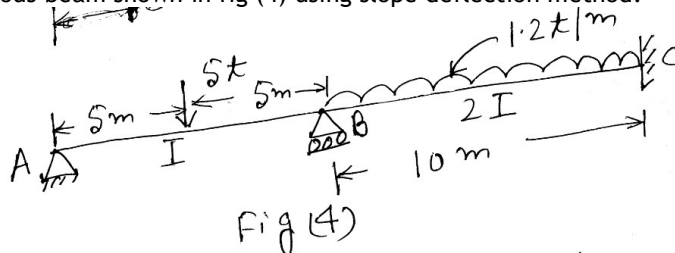
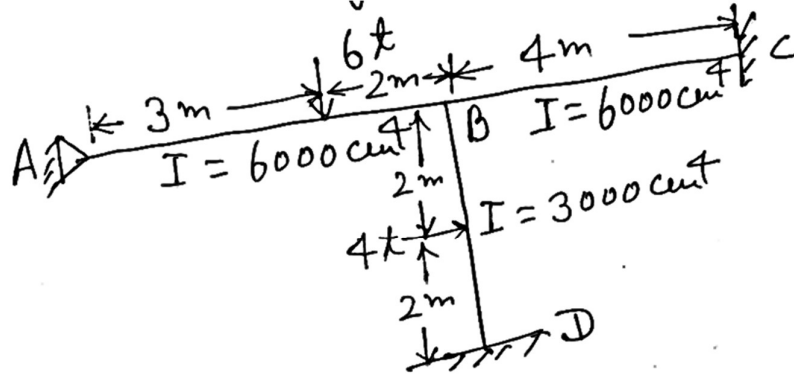**Q.7** Analyse the frame using moment Distribution method shown in fig (5) [12]

Fig (5)