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PART - A

Marks : 40

Note : Attempt all the twenty questions. Each question carries 2 marks. Answer should not exceed 15 words.

1 Write the relation between, number of joints (J), number of higher pairs (H) and number of links (L) in a chain to make it a mechanism.

2 What type of contacts exists between elements of lower pairs and higher pairs ? Give an example of each.

3 Define crowning of pulleys in flat belt drives with its use.



4 What are 'Mitre' gears ?

5 List any three advantages of Value Engineering.

6 State Guest's theory of failure. For what type of materials this is applicable ?



7 Define a forming process.

8 What is meant by break-even point ?

9 List possible modes of failure of cotter in a cotter joint. Sketch any one mode of failure.



10 Define kinematic link.

11 'Interferometry' can be used for inspection of what ?

12 What is the function of a gauge ?

13 List any four wages incentive plans.

14 State the names of various types of plant layout giving example of application industry.

15 What is meant by incentive scheme ?



19 Name various types of cutting tools.

20 What will be the change in wire size of compression spring with increase in allowable stresses ?



PART - B

Note : Attempt all the twelve questions. Each question carries 5 marks. Answer should not exceed 50 words.

21 Explain D'Alembert's Principle.

22 Explain any two inversions of Slider-Crank kinematics chain mechanism and application.



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