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B VOC
(SEM-III) THEORY EXAMINATION 2021-22
MASS PRODUCTION DEVICES

Time: 3 Hours**Total Marks: 30****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****1 x 6 = 6**

Qno.	Question	Marks
a.	What do you mass by mass production?	1
b.	What is ISO-designation in tool holding?	1
c.	What do you mean by degree of freedom?	1
d.	What do mean by fool proofing in locating and clamping devices?	1
e.	What do you mean by conventional machine?	1
f.	What do you mean by design of any component?	1

SECTION B**2. Attempt any three of the following:****3 x 3 = 9**

Qno.	Question	Marks
a.	Discuss the materials used for tool and holders.	3
b.	Discuss 3-2-1 principle of location with example.	3
c.	Discuss screw clamping with sketch diagram.	3
d.	Discuss essential features of Jigs and Fixtures.	3
e.	Discuss the materials used for designing the jigs and fixtures.	3

SECTION C**3. Attempt any one part of the following:****1 x 3 = 3**

Qno.	Question	Marks
a.	What do you mean by tool holder? What are the basic functions of tool holder?	3
b.	Discuss tool holding and tool mounting systems for conventional milling and drilling machine tools.	3

4. Attempt any one part of the following:**1 x 3 = 3**

Qno.	Question	Marks
a.	Discuss the methods of locating.	3
b.	What are the basic rules of clamping devices	3

5. Attempt any one part of the following:**1 x 3 = 3**

Qno.	Question	Marks
a.	What are the types of clamping devices? Discuss Edge Strap Clamp.	3
b.	What is hinge clamp? What are the uses of hinge clamp? Discuss with diagram.	3

6. Attempt any one part of the following:**1 x 3 = 3**

Qno.	Question	Marks
a.	What are the elements of jigs and fixtures? Explain with sketch.	3
b.	Differentiate between jigs and fixtures with neat sketches.	3

7. Attempt any one part of the following:**1 x 3 = 3**

Qno.	Question	Marks
a.	What are the steps for designing the jigs and fixtures? Explain.	3
b.	What are the forces needed to be considered for designing of jigs and fixtures? Why?	3