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**Question Paper Code: 58765**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

One credit Course

Mechanical Engineering

15UME865- JIGS & FIXTURES

(Regulation 2015)

Duration: One hour

Maximum: 30 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- The following is(are) the function(s) of a jig
  - Holding
  - Locating
  - Guiding
  - All of the above
- The following holds the work piece securely in a jig or fixture against the cutting forces
  - Locating device
  - Clamping device
  - Guiding device
  - Indexing device
- Which of the following is not correct about fixture?
  - It is used to hold the work
  - It is used to position the work the work
  - It assures high accuracy of parts
  - It is used to guide the cutting tool
- The following type of jig is used to drill a series of equidistant hole along a circle
  - Index jig
  - Plate type jig
  - Open type jig
  - Pot type jig
- Jigs and Fixtures are used for
  - Mass production
  - Identical parts production
  - Both 'A' and 'B'
  - None of the above
- The jigs and fixtures can be constructed through
  - Casting
  - Fabrication
  - Welding
  - All of the above
- In which of the following operation jigs are preferred over fixture?
  - Drilling
  - Turning
  - Milling
  - Grinding

8. A fixture does not
- (a) Holds the workpiece
  - (b) Locate the workpiece
  - (c) Guide the tool
  - (d) All of the above
9. The device which is used to remove workpiece from close-fitting locators, after the workpiece has been removed is called as
- (a) Remover
  - (b) Ejector
  - (c) Escaper
  - (d) Blocker
10. The following type of jig is used for machining in more than one plane
- (a) Template jig
  - (b) Plate type jig
  - (c) Open type jig
  - (d) Box type jig

PART – C (1x 20= 20 Marks)

11. (a) Explain the tolerances and its types. What are the materials used in Jigs and Fixture explain the tolerances and its types. What are the materials used in Jigs and Fixture. (20)
- Or
- (b) (i) Write short note on Inspection and Welding fixture. (10)
- (ii) What is the primary function of linear bushing? List out any four types drill bushes with its method of fixing and locating. (10)