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**Question Paper Code: 58765**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

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 workpiece securely in a jig or fixture against the cutting forces
  - Locating device
  - Clamping device
  - Guiding device
  - Indexing device
- The following type of jig is used for machining in more than one plane
  - Template jig
  - Plate type jig
  - Open type jig
  - Box type jig
- 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

7. In which of the following operation jigs are preferred over fixture?  
(a) Drilling                      (b) Turning                      (c) Milling                      (d) Grinding
8. which of the following operation jigs are preferred over fixture?  
(a) Drilling                      (b) Turning                      (c) Milling                      (d) Grinding
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. With the use of Jigs and fixture total cost of production  
(a) Increases                      (b) Decreases  
(c) Remains same                      (d) Jigs are not used in any production process

PART – C (1x 20= 20 Marks)

11. (a) What are the various locating devices? Explain any four of them in with aid of suitable sketches. (20)
- Or
- (b) Sketch the Box and Turn over Jigs. (20)