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B.E. / B.TECH. DEGREE EXAMINATIONS, DEC 2019

Third Semester

ME16351 – MANUFACTURING TECHNOLOGY*(Automobile Engineering)***(Regulation 2016)****Time: Three Hours****Maximum : 100 Marks****Answer ALL questions****PART A - (10 X 2 = 20 Marks)**

		CO	RBT
1.	What do you understand by core print?	1	U
2.	Mention any four defects in casting.	1	U
3.	How is the oxidizing flame obtained?	2	U
4.	What are the various methods of brazing?	2	R
5.	What are the principle parts of a lathe?	3	R
6.	State the principle of operation of Abrasive jet machining	3	U
7.	What are the two types of polymerization?	4	U
8.	What is the difference between thermo setting plastics and thermo plastics	4	U
9.	What do you mean by spinning process?	5	U
10.	Define sintering process in powder metallurgy	5	U

PART B - (5 X16 = 80 Marks)

11.	(a) (i) Explain with a simple sketch, the steps involved in green sand moulding.	(8)	1	U
	(ii) Explain with a neat sketch of lost wax processes.	(8)	1	U
	(OR)			
	(b) (i) Discuss any four properties of moulding sand.	(8)	1	U
	(ii) Explain the principle and working of centrifugal casting with a simple sketch.	(8)	1	U
12.	(a) (i) Distinguish between gas welding and arc welding.	(8)	2	U
	(ii) Describe plasma arc welding and give their applications.	(8)	2	U

(OR)

- (b) (i) Write short notes on thermit welding & its applications. (8) 2 U
(ii) What is meant by welding defect? Explain any four welding defects. (8) 2 U
13. (a) (i) Explain with a neat sketches the various methods of taper turning. (10) 3 U
(ii) Explain the construction details of radial drilling machine. (6) 3 U

(OR)

- (b) (i) Explain the working principle of cylindrical grinding process (6) 3 U
(ii) Explain abrasive jet machining with a neat sketch and state their merits and demerits. (10) 3 U
14. (a) Explain with a suitable diagram, the compression moulding and Injection moulding process. (16) 4 U

(OR)

- (b) (i) Briefly explain blow moulding process. (8) 4 U
(ii) Explain with a suitable diagram the bonding of thermoplastics. (8) 4 U
15. (a) (i) Explain with a neat sketch the wire drawing process. (8) 5 U
(ii) Draw a neat sketch and explain the cold extrusion process. (8) 5 U

(OR)

- (b) Explain the steps involved in powder metallurgy process. (16) 5 U