Seat No.:	Enrolment No.

Mechanical Engineering Department Subject Name: MT

Time: 3.00 pm to 4.00 pm
Subject Code: 3151912
Total Marks: 15
Date: 26.08.21

Instructions:

1. Make suitable assumptions wherever necessary.

	1.11	Alake suitable assumptions wherever necessary.			
Q. No.	Options		Marks	CO	Level
Q.1		Which of the following is not a property of moulding sand?	1	1	U
	(a)	Flowability			
	(b)	Green strength			
	(c)	Hardenability			
	(d)	Dry strength			
Q.2		Which of the following is 'not' an allowance given to the pattern for casting?	1	1	R
	(a)	Shrinkage			
	(b)	Draft			
	(c)	Hole			
	(d)	Machining			
Q.3		The life of a pattern is most likely to depend upon which of the following term?	1	1	A
	(a)	Number of castings produced			
	(b)	Type of cooling rate of the casting			
	(c)	Size of the casting			
	(d)	Size of the pattern			
Q.4		When sand is in its natural moist state it is known as?	1	1	U
	(a)	Green sand			
	(b)	Loam sand			
	(c)	Facing sand			
	(d)	Dry sand			
Q.5		The property of sand due to which it escapes a great amount of steam and other gases is called	1	1	A
	(a)	collapsibility			
	(b)	permeability			
	(c)	cohesiveness			
	(d)	adhesiveness			
Q.6		When a pattern is made in three parts, the top part, is known as a	1	1	U
	(a)	Соре			
	(b)	Drag			

	(c)	Cheek			
	(d)	None of the above			
Q.7		The shrinkage allowance for cast iron pattern is	1	1	R
	(a)	10mm/m			
	(b)	16mm/m			
	(c)	20mm/m			
	(d)	26mm/m			
Q.8		A taper provided on the pattern for its easy and clean withdrawl from the mould is known as	1	1	A
	(a)	machining allowance			
	(b)	draft allowance			
	(c)	shrinkage allowance			
	(d)	distortion allowance			
Q.9		The function of gating system is	1	1	U
	(a)	To fill the mold cavity before start of solidification			
	(b)	To find parting line			
	(c)	To identify casting defects			
	(d)	To release the gases evolved			
Q.10		In green sand what is the amount of water used?	1	1	U
	(a)	0 %			
	(b)	5%			
	(c)	15%			
	(d)	25%			
Q.11		The material of pattern in the case of investment casting is	1	1	R
	(a)	Wax			
	(b)	Thermosetting resin			
	(c)	Special plastic			
	(d)	Synthetic sand			
Q.12		The function of cores in casting is to	1	1	U
	(a)	form extended parts			
	(b)	form internal cavities			
	(c)	used for directional solidification			
	(d)	none of the above			
Q.13		Sprue in casting refers to	1	1	R

	(a)	gate			
	(b)	Vertical passage			
	(c)	runner			
	(d)	riser			
Q.14		Semi-centrifugal casting	1	1	A
	(a)	Is used to ensure purity and density at extremities of a casting			
	(b)	Is used to cast non symmetrical objects			
	(c)	Is used to obtain low density and pure casting			
	(d)	Uses heavy cast iron mould to act as chill			
Q.15		The tolerances produced by the investment casting process are of the order of	1	1	A
	(a)	A few microns			
	(b)	± 0.05 mm			
	(c)	± 1 mm			
	(d)	± 5 mm			

Q. No.	Options		Marks	СО	Level
Q.1		Which of the following welding process is used for welding of sheet metals in automobile and air craft industries?	1	3	A
	(a)	Shield metal arc welding			
	(b)	Gas tungsten arc welding			
	(c)	Thermit welding			
	(d)	Resistance welding			
Q.2		Grey cast iron is usually welded by	1	3	U
	(a)	Gas welding			
	(b)	Spot welding			
	(c)	Arc welding			
	(d)	TIG welding			
Q.3		Which of the following is an example of fusion welding?	1	3	N
	(a)	Arc welding			
	(b)	Forge welding			
	(c)	Resistance welding			
	(d)	Thermit welding with pressure			
Q.4		The heat generated (H) in resistance welding is expressed by	1	3	Е
	(a)	I ² Rt			
	(b)	IR^2t			

Q.5 Submerged are welding is 1 3 U process which uses a mixture of iron oxide and granular aluminium (b) Accomplished by maintaining a hot molten metal pool between plates (c) A process in which are is maintained under a blanket of flux (d) All of the above (d) All of the above (e) Electrode coating (d) Welding defect (e) ammonium chloride (e) ammonium chloride (f) ammonium chloride (d) rosin plus alcohol (e) ammonium chloride (d) rosin plus alcohol (d) rosin plus alcohol (d) all 1800°C (e) 2400°C (e) 2400°C (e) 2400°C (f) 2100°C (e) 2400°C (f) Black colour (f) White colour (f) White colour (f) White colour (f) White colour (f) Yellow colour (f) Yellow colour (f) Maroon colour (f) Yellow colour (f) Are length in are welding should be equal to 1 3 C C (f) C C C C C C C C C C C C C C C C C C C		(c)	IRt ²			
(a) process which uses a mixture of iron oxide and granular aluminium. (b) Accomplished by maintaining a hot molten metal pool between plates (c) A process in which are is maintained under a blanket of flux (d) All of the above Q.6 Weld spalter is (a) Flux (b) Welding defect (c) Electrode coating (d) Welding defect (d) Welding defect (e) Electrode commonly used in brazing is (a) borax (b) zinc chloride (c) ammonium chloride (d) rosin plus alcohol Q.8 The oxy-acetylene gas used in gas welding produce a flame temperature of (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG are welding, the welding zone is shielded by an atmosphere of (d) Are length in are welding should be equal to (d) Are length in are welding should be equal to		(d)	2IRT			
aluminium (b) Accomplished by maintaining a hot molten metal pool between plates (c) Aprocess in which are is maintained under a blanket of flux (d) All of the above (d) Weld spalter is (e) Electrode coating (d) Welding defect (e) Electrode coating (d) The flux commonly used in brazing is (a) borax (b) zinc chloride (c) ammonium chloride (d) rosin plus alcohol Q.8 The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of atmosphere of the mentioned (d) Arc length in arc welding should be equal to I 3 C	Q.5			1	3	U
Plates		(a)	aluminium			
Q.6		(b)	plates			
Q.6						
(a) Flux (b) Welding defect (c) Electrode coating (d) Welding defect Q.7 The flux commonly used in brazing is (a) borax (b) zinc chloride (c) ammonium chloride (d) rosin plus alcohol Q.8 The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG are welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in are welding should be equal to 1 3 A A A A A A A A A A A A A A	0.6	(d)		1	2	T.T.
(b) Welding defect (c) Electrode coating (d) Welding defect Q.7 The flux commonly used in brazing is (a) borax (b) zinc chloride (c) ammonium chloride (d) rosin plus alcohol Q.8 The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG are welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 A A A A A A A A A A A A A A	Q.o			1	3	U
(c) Electrode coating (d) Welding defect Q.7 The flux commonly used in brazing is (a) borax (b) zinc chloride (c) ammonium chloride (d) rosin plus alcohol Q.8 The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 A A A A A A A A A A A A A A		(a)	Flux			
(d) Welding defect Q.7 The flux commonly used in brazing is (a) borax (b) zinc chloride (c) ammonium chloride (d) rosin plus alcohol The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG are welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 A A A A A A A A A A A A A A		(b)	Welding defect			
Q.7 The flux commonly used in brazing is (a) borax (b) zinc chloride (c) ammonium chloride (d) rosin plus alcohol The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 A A A A A A A A A A A A A A		(c)	Electrode coating			
(a) borax (b) zinc chloride (c) ammonium chloride (d) rosin plus alcohol Q.8 The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(d)	Welding defect			
Color Colo	Q.7		The flux commonly used in brazing is	1	3	A
(c) ammonium chloride (d) rosin plus alcohol Q.8 The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(a)	borax			
Color Colo		(b)	zinc chloride			
The oxy-acetylene gas used in gas welding produce a flame temperature of (a) 1800°C (b) 2100°C (c) 2400°C (d) 3200°C Q.9 The oxygen cylinder is usually painted with (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 R 1 3 R 1 3 R 1 3 R		(c)	ammonium chloride			
Color Colo		(d)	rosin plus alcohol			
(b) 2100°C (c) 2400°C (d) 3200°C The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C	Q.8		• • •	1	3	R
(c) 2400°C (d) 3200°C The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(a)	1800°C			
Q.9 The oxygen cylinder is usually painted with 1 3 R (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(b)	2100°C			
Q.9 The oxygen cylinder is usually painted with (a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 R R R A R Oxidating the oxygen galler is usually painted with 1 3 R R Oxidating the oxygen galler is usually painted with 1 3 R Oxidating the oxygen galler is usually painted with 1 3 R Oxidating the oxygen galler is usually painted with 1 3 R Oxidating the oxygen galler is usually painted with 1 3 R Oxidating the oxygen galler is usually painted with 1 3 C		(c)	2400°C			
(a) Black colour (b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(d)	3200°C			
(b) White colour (c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C	Q.9		The oxygen cylinder is usually painted with	1	3	R
(c) Maroon colour (d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(a)	Black colour			
(d) Yellow colour Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to		(b)	White colour			
Q.10 In TIG arc welding, the welding zone is shielded by an atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 U 3 U 4 C		(c)	Maroon colour			
atmosphere of (a) Nitrogen gas (b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(d)	Yellow colour			
(b) Argon gas (c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C	Q.10			1	3	U
(c) Oxygen gas (d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(a)	Nitrogen gas			
(d) none of the mentioned Q.11 Arc length in arc welding should be equal to 1 3 C		(b)	Argon gas			
Q.11 Arc length in arc welding should be equal to 1 3 C		(c)	Oxygen gas			
		(d)	none of the mentioned			
(a) Diameter of electrode rod (d)	Q.11		Arc length in arc welding should be equal to	1	3	С
		(a)	Diameter of electrode rod (d)			

	(b)	1.5d			
	(c)	2.5d			
	(d)	3d			
Q.12		Seam welding is best adopted for metal thickness ranging from	1	3	Е
	(a)	0.025 to 3mm			
	(b)	3 to 5mm			
	(c)	5 to 8mm			
	(d)	8 to 10			
Q.13		Projection welding is a	1	3	R
	(a)	continuous spot welding process			
	(b)	multi-spot welding process			
	(c)	arc welding process			
	(d)	process used for joining round bars			
Q.14		In thermit welding, the iron oxide and aluminium oxide are mixed in the proportion of	1	3	N
	(a)	3:1			
	(b)	1:1			
	(c)	1:3			
	(d)	Mixture is of different oxides			
Q.15		Laser welding finds widest application in	1	3	A
	(a)	Heavy industry			
	(b)	Structural work			
	(c)	Process industry			
	(d)	Electronic industry			