 **ST.ANNE’S**

**COLLEGE OF ENGINEERING AND TECHNOLOGY**

 UNIT -I METAL CASTING PROCESSES

 TWO MARKS

1.State any four types of patterns.(2006)

2.Mention any two advantages of die casting.(2006)

3.Write the requirement of good pattern.(2007)

4.What is core venting .(2007)

5.What is function of core.(2008)

6.Which process is called lost waxing method.(2008)

7.What is function of core print.(2008)

8.What are the pattern materials.(2008)

9.Explain the term fettling .(2009)

10.Define pattern .What are the pattern materials.(2011)

11.State the different types of pattern .(2010)(2012)

12.What are the properties of moulding sand.(2010)

13.List the defects casting.(2013)

14.What are the different types of melting furnace.(2010)(2012)

15.Why is a taper allowance used.

 16 MARKS

1.What are the pattern allowance .explain them.(2009)(2012)

2.Discuss the properties of moulding sand for casting.(2010,2011,2012)

3.With neat sketch explain cupola furnace different zones.(2009)

4.Explain the types of centrifugal casting.((2011, 2012)

5.Explain with neat sketch shell moulding used in foundries.(2011, 2012,2013)

6.Explain different types of sand testing with neat sketch.(2010)

7.Explain investment casting with neat sketch.(2009,2011)

8.Discuss about the defects ,causes remedies in casting process.(2010,2011,2012)

9.What is core .describe different types of cores used.(2010)

10.Explain the CO2 process of core making .state the advantages.

11.Explain hot chamber die casting.

 UNIT -II JOINING PROCESSES

 TWO MARKS

1.Define solid state welding .(Nov/ Dec 2011)

2.What meant by carburizing flame(Nov/Dec2009,Nov/Dec 2012)

3.What is the principle of thermit welding .( Nov/Dec2012,2013)

4.Differentiate fission welding from fussion weld.(Nov/Dec2010)

5.What are the types of adhesives used in adhesive bonding.(May/Jun2012)

6.What is meant by nuggets in electric resistance welding(Nov/Dec2014)

7.List out any four arc welding equipment.(May/Jun2006)

8.What are the special features of friction welding (May/Jun2007)

9.Define resistance welding process.(May/Jun2006,2007)

10.What is purpose of fiux.(May/Jun2008)

11.How can slag inclusions in welding be avoided.(May/Jun2008)

12.How does brazing differ from braze welding(Nov/Dec2008)

13.Why is flux coated on filler rods.(Nov/Dec2008)

14.What is the application of carburizing flame (Nov/Dec2009)

15.What are the diameter and length of the electrodes available (Nov/Dec2009)

16.What is the function of in flux.

17.Define plasma arc weld.

18.What is brazing.

 16 MARKS

1.Explain MIG &TIG welding with neat sketch(Nov/Dec2009,May/Jun2012)

2.Explain the gas welding equipments with neat sketch.(Nov/Dec2012)

3.Explain friction welding ,electron beam welding with neat sketch.(Apr/May2010 ,Nov/Dec2013)

4.Explain thermit welding &diffusion welding with neat sketch.(May/Jun2012)

5.Explain spot weld &electro slag welding with neat sketch.(May/Jun2012)

6.a.Discuss about soldering and brazing with neat sketch.

 b.Discuss plasma arc welding with neat sketch.(Nov/Jun2012)

7.Discuss about weld defects and the testing methods in welding(Nov/Dec2010,Nov/Dec2012)

8.Discuss the various types of resistance welding (Nov/Dec2009,Nov/Dec2012)

9.List out the different types of welding process.explain the working principle of

 Welding processes.(Nov/Dec2010)

10.Discuss the types of flames in gas welding processes.(Nov/Dec2009)

11.Explain with neat sketch submerged arc welding processes.

12.Explain LASER beam welding and Oxy-acetylene welding.

13.Explain gas metal arc welding process with neat sketch.(Nov/Dec 2013)

14.Expalin the following (i)Resistance weld(ii)Friction stir weld(Nov/Dec 2013)

15.Explain pecusssion welding &oxy acetylene welding neat sketch.(Apr/May 2010)

16.Discuss about adhesive bonding techniques and filler fluxes in welding(Apr/May2010)

 PART -C

1.Explain the process of metal transfer in GMAW process with neat skectch

 Also explain the relationship between the shielding gas used and the type of

 Metal transfer in GMAW process.(Nov/Dec 2011)

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 UNIT –III -METAL FORMING PROCESSES

 TWO MARKS

1.Explain the term extrusion process.(Nov/Dec2009,May /Jun2012,Nov/Dec 2013)

2.What are the disadvantages of forging processes.(Nov/Dec2009)

3.Define cold and hot working in short.(Apr/May2011,May/Jun2012)

4.What is forging.(Nov/Dec2013)

5.How is forging classified.(Nov/Dec2013)

6.What is meant by recrystallization temperature.(Apr/May2010)

7.What is meant by closed die forging.(Nov/Dec2010)

8.What are the shape rolling operations.(Nov/Dec2010)

9.List the advantages of cold extrusion over hot extrusion .(Nov/Dec2012)

10.Compare hot and cold working.

12.Give the methods of cold working.

13.Define cold working.

14.Name the typical forging operations.

15.Differentiate between press and drop forging.

16.Define extraction

17.Why is drop forging called so(Nov/Dec 2014)

18.What does angle of bite rolling mean(Nov/Dec 2014)

19.What are the various forming processes(May/Jun 2015)

20.Name various defects in parts produced by drawing.( May/Jun 2015)

21.What you meant by lateral extrusion(Nov/Dec 2015)

22.What you meant by angle of bite.( Nov/Dec 2015)

23.Give some examples of hot forged products.(Nov/Dec 2016)

 16 –MARKS

1.Classify three types of rolling mills with neat sketch.(Nov/Dec2009,Apr/May2011)

2.What are forging defects. Explain any four defects with sketch.(Apr/May2011

3.With suitable examples explain open and closed die.(Apr/May2010)

4.Mention the products of shape rolling and explain production of any one of

 The products with sketches.(Nov/Dec2012)

5.Write a critical note on principle ,types and characteristics and limitations

 Of the extraction(Apr 2011)

6.Distinguish between wire and tube drawing with sketches.(Nov/Dec2009,2010)

7.Explain with sketch of upsetting and drawing down operations(Nov/Dec 2009)

8.(i)How the general design considerations for forgings.

 (ii)How collapsible tubes of aluminium manufactured .explain it.(Nov/Dec 2011)

9.(i)With a neat sketch explain the working of a pneumatic hammer for forging.(ii)List four tools used for forging.sketch any two.(May/Jun 2012)

10.With the neat sketch explain the principle used in tube drawing .

11.With neat sketch explain different types of roll stand arrangement used in roll

 Mills.(May/Jun 2012)

12.Explain the following forging operations

 a.Upsetting b.Bending c.Swaging d.Punching e.Edging(Nov/Dec 2012)

13.With suitable sketch explain following

 (i)cold extraction forging (ii)Seamless tube drawing.(Nov/Dec 2012)

14.Describe the principle of Hot and Cold working processes.Compare

 Them(Nov/Dec 2010)

15.What are the Defects in parts produced by rolling .explain it(Apr 2010)

16.Expalin the steps involved in forging operations(Nov/Dec 2013)

17.Explain the various defects present on rolled plate surfaces with sketch(Nov/Dec 2013)

18.(i)With suitable example describe direct and indirect extraction

 (ii)Draw a simple sketch showing rolling processs(Nov/Dec 2014)

19.(i)Explain hot and cold working with its advantages.

 (ii)Explain in details about wire drawing(Nov/Dec 2014)

20.Describe the ring rolling and thread rolling(May/Jun2015)

21.Explain forward and backward extruction process(May/Jun2015)

22Explain with neat sketch types of rolling stand arrangement.(Nov/ Dec 2015)

23.With suitable sketches explain the stages involved in shape rolling operations

 (N ov/Dec 2016)

 UNIT IV-SHEET METAL PROCESSES

 2MARKS

1.What is meant by spring back(Nov/Dec2011,May/Jun 2012,Nov 2013)

2.What are the advantages of hydro forming process.( May/Jun 2012)

3.Write short notes on hydro forming(Nov/Dec2009)

4.Define embossing(Nov/Dec2009)

5.What is peen forming .(Nov/Dec 2010)

6.Define formability(Nov/Dec 2010)

7.Explain the term of work harding(Apr/May 2011)

8.What is lancing operation that is done on sheet metal (Nov/Dec 2012)

9.What are the limitations of explosive forming. (Nov/Dec 2012)

10.List the advantages of super plastic forming.( Nov/Dec 2013)

11.Define notching. .( Nov/Dec 2013)

12.Define squeezing. (Nov/Dec 2012)

13.What is stretch forming. (Nov/Dec 2014)

14. Define press working. (Nov/Dec 2015)

15. Define penetration. (Nov/Dec 2016)

16.Define rolling forming. (Nov/Dec 2015)

 16 -MARKS-PART-A

1.Explain the powder and metal spinning process with sketch(Nov /Dec 2009)

2.Explain shearing operation in a sheet metal work neat sketch.(Nov 2009)

3.Describe various types of bending operations with neat sketch(Apr/May 2010)

4.What is super plastic of metal .How this process done .( Apr/May 2010)

5.Explain hydro forming process with neat sketch(May 2011) (Nov /Dec 2012)

6.Explain magnetic pulse forming process with neat sketch(May 2011)

7.Explain explosive forming process with neat sketch(Nov /Dec 2012)

8.Expain the following(Nov /Dec 2012) .( May/Jun 2012)

 (i)Wiping die(ii)Roll bending (iii) stretch forming(iv)Deep forming

9.Explain the various sheet metal forming process with sketch.(Nov/Dec 2013)

 PART -B

10. Explain explosive forming process with neat sketch (Nov/Dec 2013)

11.Explain super plastic forming with neat sketch.(Nov/Dec 2014)

12.Enumerate with neat sketch any two types stretch forming .(Nov/Dec 2014)

13.Explain the various properties of sheet metal (May/Jun 2015)

14.Describe the nibbling and notching(May/Jun 2015)

15.Explain the different type of bending processes.( May/Jun 2015)

16.Explain in detail coining and embossing(May/Jun 2015)

17. Enumerate with neat sketch any one type stretch forming .(Nov/Dec 2015)

18.Explain advantages and limitations compound die over progressive die(Nov/Dec 2015)

19. Explain hydro forming process with neat sketch(Nov/Dec 2015)

 UNIT -V- MANUFACTURING OF PLASTIC COMPONENTS

 TWO MARKS

1.What is film blowing (Nov/Dec 2012)(May/Jun 2012)

2.Differentiate thermo setting and thermo plastics(Nov/Dec 2012,2011)

3.Name few commonly used fillers in plastics processing(Nov/Dec 2011)

4.Define pulforming(Nov/Dec 2013)

5.What are the different types compression moulds(Nov/Dec 2013)

6.What is rotational moulding .( Nov/Dec 2009)

7.Write a note on thermoplastics.( Nov/Dec 2010)

8. What are the characteristics of thermoplastics.( Nov/Dec 2006)

9. Name the parts made by rotational moulding .( Nov/Dec 2008)

10.What is parison .( Nov/Dec 2008)

11.Define degree of polyeMerization(Nov/Dec 2009)

12.What is polyeMerization.(Nov/ Dec 2014)

13.List of any four types of adhesives used in adhesive bonding of plastics .

 (Nov/ Dec 2014)

14.Define polyaddition .( May/Jun 2015)

15.Write short notes on the application of plastics .( May/Jun 2015)

16.What is need of rotational moulding in manufacturing plastics components.(

 (Nov/Dec 2015)

17. What note on polyeMerization(Nov/Dec 2015)

18.Write the classification of plastics.

19.Differentiate between thermo setting and thermo plastics

20.List the advantages of thermo forming.

 16 -MARKS

1.Give the sequence of operations in transfer moulding for thermo setting plastic.

 (Nov/Dec 2009)

2.Discuss the working of injection moulding with neat sketch.( Nov/Dec 2009)

3.Describe the step by step procedure in rotational moulding.(Apr/May 2010)

4.Discuss the advantages and applications of compression and transfer moulding .

 (Apr/May 2010)

5.Describe the compression moulding process.( Nov/Dec 2012)

6.Describe briefly the plunger type and screw type injection moulding for

 Producing plastics components.( Nov/Dec 2012)

7. Describe the compression moulding process.( Nov/Dec 2013)

8.Explain the transfer moulding process. .( Nov/Dec 2013)

9.List the parameters considered while designing of injection mould parts

 Explain the significance of any 4 parameters.(Apr/May -2012)

10.What are the methods of bonding thermo plastics .Explain any one method

(Apr/May -2012)

11.Describe the working of film blowing and thermo forming.( Nov/Dec 2010)

12.Explain the various moulding process of reinforced plastics .( Nov/Dec 2013)

13.Explain the various types of thermo forming methods shaping thermo plastics .

 (Nov / Dec 2014)

14.Discuss transfer moulding with advantages and limitations.( Nov / Dec 2014)

15.Explain the injection blow moulding process.(May/Jun 2015)

16.Explain the calendaring process.( May/Jun 2015)

17.Describe the any two types of thermo forming process.( May/Jun 2015)

18.Explain how the plastics sheets are manufactured by thermo forming

 Methods(Nov / Dec 2015)

19.Explain the process of transfer moulding with applications.( Nov / Dec 2015)

20.Enumerate various methods of bonding thermo plastics. (Nov / Dec 2015)