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**3rd Sem / Auto, Mech, Prod, T&D, GE, CNC, CAD/CAM,  
Found & Forg, Metallurgy, Print Making Tech., Mech (Ad.  
Manu. Tech.) Mech Engg (Fabrication Tech), Mech. Engg.(Prod.)**

**Subject:- Workshop Technology - I**

Time : 3Hrs.    M.M. : 100

### **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 In oxy-acetylene gas welding, if oxygen burnt with excess acetylene, the flame produced is.  
a) Carburising flame    b) Oxidising flame  
c) Neutral flame              d) None of the above
- Q.2 In reverse polarity  
a) Work is negative and electrode holder is earthed  
b) Electrode holder is positive and work is negative  
c) Electrode holder is negative and work is positive  
d) None of the above
- Q.3 In case of submerged arc welding, electrodes upto which diameter may be used?  
a) 30mm                              b) 25mm  
c) 20mm                              d) 12mm
- Q.4 In thermit welding, temperature produced by thermit reaction is nearly  
a) 1500°C                              b) 2500°C  
c) 3000°C                              d) 5000°C

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- Q.5 Cope and drag pattern is a form of  
a) Match plate pattern    b) Loose pattern  
c) Split pattern              d) Sweep pattern
- Q.6 Loam sand is a mixture of  
a) 30% sand and 70% clay  
b) 50% sand and 50% clay  
c) 70% sand and 30% clay  
d) 90% sand and 10% clay
- Q.7 Sand blasting is used for  
a) Cleaning the castings  
b) Finishing the castings  
c) Core making  
d) Mixing sand and additives
- Q.8 Two or more cutting operation are done simultaneously on  
a) Compound die              b) Progressive die  
c) Simple die                      d) None of the above
- Q.9 In a four high rolling mill, smaller rolls are called  
a) Working rolls              b) Back up rolls  
c) Main rolls                      d) Guide rolls
- Q.10 Melamine is obtained from  
a) Manganese dioxide    b) Magnesium sulphate  
c) Calcium carbide        d) Calcium sulphate

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### SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define deposition rate.
- Q.12 Oxy-acetylene gas welding is done by the \_\_\_\_\_ flame.
- Q.13 Name two types of arc welding.
- Q.14 Plasma is a stream of \_\_\_\_\_ particles.
- Q.15 Define core.
- Q.16 Name some special sand.
- Q.17 Centrifugal casting is type of \_\_\_\_\_ mould casting.
- Q.18 Progressive die is also known as \_\_\_\_\_.
- Q.19 Define hot extrusion.
- Q.20 Melamine is obtained from \_\_\_\_\_.

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Enlist the various welding processes.
- Q.22 Write the advantages of Righthand welding over Lefthand welding.
- Q.23 Explain different types of gas flames.
- Q.24 Compare the AC arc welding and DC arc welding.
- Q.25 What are the functions of coating on the electrode?
- Q.26 Explain spot welding.

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- Q.27 Write the advantages & disadvantages of MIG welding.
- Q.28 Name the various pattern making tools.
- Q.29 Explain the commonly used materials in moulding sand.
- Q.30 Write the advantages of injection moulding.
- Q.31 Explain cold chamber die-casting machine with the help of neat sketch.
- Q.32 Explain seamless tube manufacturing process.
- Q.33 Explain working Pit furnace with the help of neat sketch.
- Q.34 Explain ultrasonic testing of casting.
- Q.35 Define any five press operations.

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain laser beam welding. Write its advantages, disadvantages & applications.
- Q.37 Explain various types of patterns.
- Q.38 Explain centrifugal casting with the help of neat sketch.

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