Pafe.1103   **Workshop Technology (1+2)**   **Marks: 50**
                                                                                  Time: 2 hours

I   **Fill in the blanks**   **(10x1=10)**
1.   The cutting edge of a chisel should be ………………
2.   The type of file used for a wood work is ……………
3.   Carburizing flame contains excessive ………………..
4.   A tool signature consists of …………… parameters.
5.   The plain milling cutter is commonly used for …………… operations.
     State True or false
6.   A file removes the metal during return stroke.
7.   In Gas Tungsten Arc (GTA) welding, a stream of inert gas is used to prevent the formation of oxides in the puddle.
8.   A casting defect which occurs due to improper venting of sand is known as blow holes.
9.   In milling machine, cutter rotates at high speed and removes metal at very high speed
10. For milling, the work is fixed on a table which controls the feed against the cutter.

II   **Write short notes on ANY FIVE of the following**   **(5x2=10)**
1.   What are the functions of hammer?
2.   What is the use of try square?
3.   Why is shaper unsuitable for machining large workpieces?
4.   How is a lathe specified?
5.   What is the difference between through hole and blind hole in drilling?
6.   What is the purpose of flux?
7.   Mention any four shaper specifications.

III **Answer ANY FIVE of the following**   **(5x4=20)**
1.   Which tools are used in fitting shop?
2.   What is a core, and how is it made?
3.   List the equipment's used in gas welding and explain anyone of them.
4.   State the various methods for taper turning operation.
5.   What is a turret lathe, and how does it differ from an engine lathe?
6.   Why milling is a versatile machining process?
7.   What is the difference between a straight flute drill and a twist drill?

IV   **Write an essay on ANY ONE of the following**   **(1x10=10)**
1.   Explain with neat sketches the different tools used in carpentry section.
     Discuss the fundamental principles of welding. Explain the importance of welding in various industries. Provide examples of applications where welding is a critical manufacturing process.
2.   Explain the work holding devices used in shaping operations, such as vices and clamps. Detail the main operations performed on a shaper, such as shaping external and internal surfaces, keyways, and slots.

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