KERALA AGRICULTURAL UNIVERSITY
B.Tech. (Agrl. Engg.) 2022 Admission & Previous Admissions
II Semester Final Examination - September 2023

Fpme.1201   Workshop Technology and Practices (1+2)   **Marks: 50**
Time: 2 hours

I   **Define the following**   **(10x1=10)**

1.   Brittleness
     Fill in the blanks
2.   ………. is a property of material to absorb energy and to resist shock and impact loads.
3.   The foundry uses ……….. process to relieve stresses produced in castings.
4.   In green sand molding, the sand id claimed to be green because it has…………..
     State True or False
5.   The colour coding of oxygen cylinder is red.
6.   Fettling is the last step of the foundry.
7.   Tailstock method is highly suitable for producing steep tapers.
8.   We can't perform grinding operation in a drilling machine.
     Answer the following
9.   Which type of file you would select for filing a wooden plank?
     Match the following
10. (a)   Drilling Machine   (1)   Ram
     (b)   Lathe   (2)   Radial arm
     (c)   Shaping Machine   (3)   Gear cutting
     (d)   Milling machine   (4)   Lead screw
                                (5)   Mould

II   **Write short notes on ANY FIVE of the following**   **(5x2=10)**

1.   What is the difference between hardness and toughness?
2.   What is the use of Mortise marking gauge?
3.   What are the gases used in oxyfuel welding?
4.   What is resistance welding? Explain briefly about the seam welding.
5.   Enumerate the different types of patterns use in foundry.
6.   How to perform a drilling action using lathe machine?
7.   What are the parts of the drilling machine?

III   **Answer ANY FIVE of the following**   **(5x4=20)**

1.   What are the factors influencing the plat layouts?
2.   Explain briefly about any four smithy tools.
3.   Differentiate the TIG and MIG welding.
4.   Write about the properties of the green sand using in foundry process.
5.   Explain briefly about crank and slot quick return mechanism using in shaping machine.
6.   What is the use of carriage in lathe machine?
7.   Write shortly about horizontal milling machine.

IV   **Write an essay on ANY ONE of the following**   **(1x10=10)**

1.   Discuss elaborately about the foundry process.
2.   Discuss elaborately about the radial drilling machine and its functions.

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