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Roll No.

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**3rd Sem / Automobile, Mechanical Engg., Mechanical
(Tool & Die Design)
Subject : Workshop technology - II**

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Under cutting in a weld appears due to

- a) Non-uniform heating
- b) Non-uniform feeding of electrode
- c) Presence of moisture
- d) None of the above

Q.2 The cutting action of slotter occurs in

- a) Downward stroke b) Upward stroke
- c) Horizontal stroke d) None of the above

Q.3 A fixture is a device

- a) Which holds and located the work piece and guides the cutting tool.
- b) Which holds and positions the work, but does not in itself guide, location or position the work piece.

- c) Which is not fixed to machine table.
- d) None of the above

Q.4 Green 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.5 Which of the following is not a moulding tool?

- a) Trowel b) Riddle
- c) Crucible d) Lifter

Q.6 Shaper uses a

- a) Single point cutting tool
- b) Multi point cutting tool
- c) Rotatory tool
- d) None of the above

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 In _____ milling, the cutting tool rotates in the opposite direction to the movement of the table.

Q.8 A jig is not _____ on the table.

Q.9 The portion of broach which enters the hole before the teeth start cutting is called _____.

(1)

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(2)

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Q.10 The vertical passage through which molten metal flows down from a pouring basin to the parting plane is called _____.

Q.11 Uneven wall thickness is produced by _____ casting.

Q.12 In TIG welding _____ gases are used for shielding the molten metal pool.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 What are the causes and remedies of porosity and blow holes?

Q.14 Explain any two properties of moulding sand.

Q.15 Explain any two casting defects with causes and remedies.

Q.16 Write the working principle of shaper.

Q.17 Write any five difference between shaper and planer.

Q.18 Explain different types of broach tools.

Q.19 Difference between up and down milling.

Q.20 Explain single ram and duplex ram horizontal type broaching machine.

Q.21 Explain any three Non-Destructive Inspection /Testing.

Q.22 Differentiate bewteen a jig and a fixture.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Difference between TIG (Tungsten inert gas welding) and MIG (Metal inert gas welding)

Q.24 Explain various milling operations- Face milling, angular milling, form milling straddle milling and gang milling.

Q.25 Explain locating devices used in jigs.