Assignment No. 9

The due date for submitting this assignment has passed. Due on 2019-10-02, 23:59 IST. As per our records you have not submitted this assignment.

1) A layer of suitable material can be developed on the substrate for surface modification by

- Electrochemical reactions
- Thermal spraying
- Welding
- All of above

No, the answer is incorrect.
Score: 0
Accepted Answers: All of above

2) Thickness of following modified surface layers in descending order will be

- Cladding, coating, films
- Films, coating, cladding
- Films, cladding, coating
- Coating, cladding, films

No, the answer is incorrect.
Score: 0
Accepted Answers: Cladding, coating, films
3) The tendency of delamination of coating material and substrate in thermal spray coating is due to
- Strong metallurgical bond between them
- Bond with poor mechanical interlocking
- Poor metallurgical bond
- Both b and c
No, the answer is incorrect.
Score: 0
Accepted Answers:
Both b and c

4) High heat input process for surface modification by weld surfacing of plain carbon steel substrate can lead to
I. Increased dilution from substrate
II. Fine grain structure
III. Short cooling time
IV. Coarse grain structure
V. Long cooling time
- I, II & III
- I, IV & V
- I, II & IV
- I, III & IV
No, the answer is incorrect.
Score: 0
Accepted Answers:
I, IV & V

5) The mechanical performance (hardness) of the modified surface developed using a bead on plate (BOP) fusion weld is governed by
I. Heat input
II. Dilution ratio
III. Pre-processing of substrate material
IV. Cooling time
V. Surroundings in which welding is performed
- I, II, III & V
- I, III & V
- I & IV
- I, II, IV & V
No, the answer is incorrect.
Score: 0
Accepted Answers:
I, II, IV & V

6) Cooling rates in bead on plate welding of carbon steel will affect
- Grain size
- Microstructure
- Mechanical properties
- All of above
No, the answer is incorrect.
Score: 0
Accepted Answers:
All of above
7) In oxy-fuel gas weld surfacing, the maximum temperature offered when fuel used

- Acetylene
- Propene
- Butane
- Temperature will be same irrespective of fuel gas

No, the answer is incorrect.
Score: 0
Accepted Answers:
Acetylene

8) Loss of alloying elements through oxide formation in gas weld surfacing takes place when

- More acetylene and less oxygen is used
- More oxygen and less acetylene is used
- Equal proportion of oxygen and acetylene are used
- Oxidation is not possible

No, the answer is incorrect.
Score: 0
Accepted Answers:
More oxygen and less acetylene is used

9) SMAW process can be used for

I. Cladding
II. Nitriding
III. Electroless plating
IV. Hardfacing
V. Buttering

- I, II & III
- I, IV & V
- Only I
- IV & V

No, the answer is incorrect.
Score: 0
Accepted Answers:
I, IV & V

10) The features associated with submerged arc welding based surfacing techniques are

I. Large surface area
II. A non-consumable electrode
III. High dilution rates
IV. High heat input
V. Argon as shielding gas

- I, III & V
- I, III & IV
- I, IV & V
- I, II, III & IV

No, the answer is incorrect.
Score: 0
Accepted Answers:
I, III & IV