

UNIT - V.

WELDING ECONOMY, APPLICATIONS AND TESTING.

I. SHORT ANSWER QUESTIONS.

Qn. No.	QUESTIONS	Page Number
1.	What is site welding?	[37-1]
2.	What is meant by shop welding?	[37-1]
3.	List out the various tools and equipment used in site welding.	[37-3]
4.	Name the various tools and equipment used in shop welding.	[4-9]
5.	State the applications of site welding.	[37-1]
6.	Write the advantages of site welding.	[37-2]
7.	List out the disadvantages of site welding.	[37-3]
8.	Brief the limitations of site welding.	[37-3]
9.	Write short notes on "Destructive Testing of welds"	[38-3]
10.	Enumerate Non-Destructive Testing of welded joints.	[38-3]
11.	Compare non-destructive testing of welds with destructive testing of welds.	[38-3]
12.	State the various stages in the weld inspection.	[38-1]
13.	Distinguish between "Inspection and Testing" in welding.	[38-1]
14.	Name the various destructive testing of welded joints.	[38-3]
15.	List out the various non destructive testing of welds.	[38-3]
16.	What are the various types defects in the welded joints?.	[30-1]
17.	What is crack in welded joints?	[30-1]
18.	List out the various causes of cracks in the welded joint.	[30-1]
19.	What is distortion?	[30-2]
20.	List out the various factors for distortion in the welded joints?	[30-2]
21.	What are the various causes for incomplete penetration?	[30-3]
22.	What is meant by inclusions?	[30-3]
23.	State the reason for inclusions.	[30-3]
24.	What is porosity in the welds?	[30-4]
25.	What is a blow hole in the welds?	[30-4]

26. Distinguish between porosity and blow holes.	[30-4]
27. State the various causes for promoting for poor fusion.	[30-5]
28. What is poor weld bead appearance?	[30-5]
29. List out the reason for poor weld bead appearance.	[30-5]
30. What is spatter?	[30-6]
31. State the various causes for spatter.	[30-6]
32. What is under-cutting?	[30-6]
33. List out the causes for under-cutting.	[30-6]
34. What is meant by over lapping?	[30-6]
35. What are the various reasons for over lapping?	[30-6]
36. Why tensile test is carried out in the welded joints?	38-3
37. What are the various bend tests conducted in the welded joints?	38-7
38. Name the two types of impact test.	38-11
39. Why impact test is conducted?	38-10
40. What is the purpose of conducting hardness test on welded joints?	38-13
41. Name the two types of hardness test.	38-15
42. What is itch test?	38-16
43. What is visual testing in NTD?	38-18
44. Why visual inspection is important?	38-18
45. What is the purpose of conducting leak test?	38-18
46. How do you check for weld leaks?	38-18
47. What is meant by radiography test?	38-19
48. Write the principle of radiography test.	38-19
49. List out the advantages and disadvantages of radiography test.	38-22
50. Write short notes on magnetic particle test.	38-23
51. What are the purposes of conducting liquid penetrant test?	38-26
52. Write short notes on ultrasonic inspection.	38-28
53. Write the advantages and disadvantages of ultrasonic inspection.	38-30
54. What are the applications of ultrasonic inspection?	38-30
55. What are the advantages and disadvantages of eddy current test?	38-31

- 56. What are the purposes of welding inspection? [38-1]
- 57. What is testing of welds? [38-1]
- 58. Why to test the weld? [38-1]
- 59. List out the various etching reagent. [38-17]

II. ESSAY TYPE QUESTIONS.

1. Discuss the environmental effects in the site welding. [37-3]
2. How the quality of weld can be assured in site welding? [37-4]
3. Explain the welding procedure at site welding? [37-1]
4. State the various safety precautions to be followed in the site welding. [37-2]
5. Explain the difficulties which may be encountered in the site welding. [37-2]
6. State the infrastructure facilities to be required in the site welding. [37-2]
7. Discuss about the operating force in the site welding. [37-1]
8. Name the various NDT testing methods of welds and explain the procedure of conducting
a. Radiography test b. Ultrasonic test [38-19]
[38-28]
9. Explain the various causes for the defects in the welded joints and list out the remedies. [30-7]
10. Explain the various causes for welding cracks. [30-1]
11. Write short notes on [30-4]
 - i. Porosity
 - ii. Blow holes
 - iii. Pipe
12. Explain the procedure of conducting bend test on welded joints. [38-6]
13. What is nick-break test? Write the procedure of bend test. [38-12]
14. Explain the itch test of the welds. [38-16]
15. Briefly explain Macro-itch examination and Micro-itch examination. [38-16]
16. Explain the procedure of preparing the specimen for conducting the 'Etch Test'. [38-17]
17. Write the procedure of conducting magnetic particle inspection. [38-23]
18. Explain the liquid penetrant test in welding. [38-26]
19. Briefly explain the following [38-10]
 - a. Impact test b. Hardness test [38-13]
20. Explain the following in detail [38-11]
 - a. Charpy test b. Izod test c. Bend test [38-12]
[38-6]
21. Explain the three stages of inspection in welding. [38-1]

& & & & & &