# Visual and Optical Testing Level II Model Questions

**1. A high intensity source of light may cause an inspection problem because:**
a. it produces excessive glare
b. it produces considerable heat
c. it has a short bulb life
d. the lamp head cannot adjusted

**2. A common inspection instrument that is used to visually inspect internal bore surfaces is**
a. magnifying glass
b. borescope
c. phototube
d. microscope

**3. Glare can be reduced on an inspection surface by using:**
a. visible light
b. spectral light
c. screens
d. polarized light

**4. A discontinuity associated with metal overflow during forging is called a:**
a. seam
b. flake
c. lap
d. lamination.

**5. The physical characteristics of color are:**
a. hue, purity, and brightness
b. wavelength, spectrum, and contrast
c. acuity, perception, and distance
d. none of the above

**6. Wear due to erosion /corrosion on a valve is typically found in:**
a. the valve body
b. the valve seating area
c. the valve disk
d. all of the above

**7. A discontinuity that is not associated with welds is:**
a. undercut
b. overlap
c. laminations
d. under fill

**8. A welding symbol over the reference line refers to:**
a. the area on the arrow side.
b. the area near the end of the arrow
c. the area opposite of the arrow
d. a field weld

**9. During a visual examination, a welding discontinuity that could not be detected would be:**
a. undercut
b. cracks
c. porosity
d. side wall lack of fusion

**10. Service induced discontinuities can be the result of:**
a. vibration
b. stress risers
c. corrosion
d. all of the above

**11. A physical attributes that cannot be visually inspected during welding is:**
a. the welding process
b. the acceptability of the weld, with regard to its appearance
c. alignment and fit up
d. joint preparation

**12. An inherent discontinuity in forgings that cannot be detected using visual testing is:**
a. bursts
b. cracks
c. seams
d. laps

**13. Every inspector is affected differently by perception, fatigue, and altitude. In visual inspection, these factors are classified as:**
a. physiological factors
b. uncontrolled factors
c. production factors
d. classic distress factors

**14. To examine areas around bends inside a pipe section, the visual examiner uses a:**
a. telescope
b. fiberoptic borescope
c. borescope
d. microscope

**15. In a casting, a visual examiner could expect to find:**
a. laminations
b. stringers
c. bursts
d. hot tears

**16. A visual examiner could expect to find a crater crack:**
a. at the beginning of the weld
b. somewhere between the beginning and the end of the weld
c. at either the beginning or the end of the weld
d. at the end of the weld

**17. During the visual examination of a full penetration double bevel weld joint, visual examination cannot locate:**
a. undercut
b. undercut
c. crater cracks
d. insufficient penetration

**18. A device that provides the means for comparing a test surface to a standard surface finish is called a:**
a. measuring magnifier
b. surface calibrator
c. surface comparator
d. surface magnifier

**19. An instrument that can be equipped with forward oblique, right angle, or retrospective visual systems is called:**
a. an angulated borescope
b. a microscope
c. a panoramic borescope
d. a stereoscope

**20. In accordance with SNT-TC-1A certification of visual NDT personnel is the responsibility of:**
a. ASNT
b. the employer
c. the NDT Level III
d. an outside agency

**21. The distance a magnifier can be moved toward or away from a subject while keeping it in good focus is called:**
a. depth of field
b. field of view
c. focal spot
d. magnification distance

**22. The visible portion of the electromagnetic spectrum extends form:**
a. 100-400 nm
b. 210-370 nm
c. 380-770 nm
d. 570-891 nm

**23. The portion of the eye that regulates the quantity of light admitted is called:**
a. iris
b. pupil
c. retina
d. cones

**24. In general, the total magnification of borescopes is in the range of:**
a. 3x – 4x
b. 2x – 8x
c. 4x – 10x

d. 5x – 15x

**25. A method used for copying the topography of a surface that cannot be moved or one that would be damaged in transferal is called:**
a. NDT
b. in-situ NDT
c. replication
d. surface metallography

**26. Replication is used for:**
a. the analysis of fracture surfaces and microstructure
b. the evaluation of yield and tensile strength of metals
c. the evaluation of corrosion damage and wear
d. both a and c above

**27. As related to photographic technique for recording visual testing results, the range of distance over which a camera gives satisfactory definition when its lens is in the best focus for a certain specific distance is refered to as:**
a. depth of vision
b. depth of field
c. depth of foucs
d. field of vision

**28. The undesirable removal of material from contacting surfaces by mechanical action is refered to as:**
a. corrosion
b. erosion
c. wear
d. grinding

**29. The deterioration of a metal resulting from electrochemical reactions with environment is referred to as:**
a. erosion
b. corrosion
c. wear
d. fatigue

**30. The roughest surface finish is indicated by a measurement of :**
a. 6 µin.
b. 150 µin.
c. 250 µin.
d. 380 µin.

**31. Welding process in which there is a higher degree of probability of entrapping slag is:**
a. GMAW
b. GTAW
c. SMAW
d. all of the above

**32. In borescope, the image is brought to the eyepiece by:**

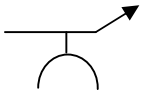
a. an objective lens
b. relay lenses
c. an eyepiece lens
d. all of the above

**33. 27. A cause for undercut that occurs during the welding process is called:**
a. excessive voltage or current
b. slow travel speed
c. excessive travel speed
d. both a and c above

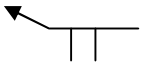
**34. When the weld is to be placed on the arrow side of the joint, the weld symbol in the drawing will be:**
a. below the line
b. above the line
c. in the tail
d. at the end of the arrow

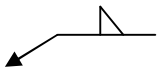
**35. Joint profiles of finished welds are controlled by:**
a. acceptance standards.
b. workmanship standards
c. design requirements
d. all of the above

**36. which of the following weld symbols represents a fillet weld?**

a. 

b. 

c. 

d. 

**37. A wide angle of view for a borescope provides:**
a. illumination
b. high magnification
c. shorter depth of field
d. greater depth of field

**38. A narrow angle of view in a borescope is required for:**
a. high magnification
b. low magnification
c. a greater depth of field
d. greater reflectivity

**39. A remote visual examination aid that is used for viewing around corners with a flexible distal end is called:**
a. an optiscope
b. a fiberoptic borescope
c. a mirror
d. an image guide

**40. Direct visual examination is possible when the eye can be placed within:**
a. 305mm(12 in.) of the inspection surface
b. 381mm(15in.)of the inspection surface
c. 610mm(24in.) of the inspection surface
d. 762mm(30in.) of the inspection surface

**Ans:**

1. a
2. b
3. d
4. c
5. a
6. d
7. c
8. c
9. d
10. d
11. b
12. a
13. d
14. b
15. d
16. c
17. d
18. c
19. a
20. b
21. a
22. c
23. a
24. c
25. c
26. d
27. c
28. b
29. b
30. a
31. c
32. a
33. d

34. a
35. d
36. d
37. d
38. a
39. b
40. c