

ROOFING CONTRACTORS EXAMINATION QUESTIONS

1. As a general rule, how many layers of asphalt shingle roofing will most roof surfaces support?

- A. 1
- B. 2
- C. 3
- D. 4

2. The Residential Asphalt Roofing Manual recommends that the first shingle of a "butt-up" roof have _____ inches cut off the top in addition to cutting off the tabs.

- A. 0
- B. 1
- C. 2
- D. 3

3. When installing metal flashing shingles where a roof butts a vertical wall, what is the size of the flashing at the end of the shingles with a five inch exposure?

- A. 6" x 7"
- B. 6" x 12"
- C. 10" x 7"
- D. 12" x 12"

4. The first ply of a built-up roof system over a light insulating concrete deck should be installed by _____.

- A. solid bonding
- B. mechanical fasteners
- C. channel mopping
- D. spot mopping

5. It is not considered good practice to apply roll roofing when the temperature is at or below _____ Fahrenheit.

- A. 30°
- B. 32°
- C. 40°
- D. 45°

6. Using the NRCA suggested deflection factor, what would be the maximum permissible deflection for a span of 20 feet?

- A. 0.083 inches
- B. 0.46 inches
- C. 0.66 inches
- D. 1 inch

7. At _____ is where you begin to tear off a low sloped gravel roof.

- A. the bottom and work up.
- B. either edge and work across the slope
- C. the flashing at valleys
- D. the top and work down

8. The NRCA recommends that roof membrane be attached to the roof insulation boards _____ for precast concrete decks.

- A. by flood asphalt dip from a tub
- B. by mechanical fasteners
- C. by solid mopping hot asphalt
- D. by strip mopping type II asphalt

9. Asphalt liquid base materials that need softening should be placed _____.

- A. over an open fire
- B. in an oven with the door open
- C. in hot water with cans unopened
- D. on an electric burner

10. The softening point of type III asphalt used in roofing should be _____ degrees Fahrenheit maximum.

- A. 135 - 151
- B. 158 - 176
- C. 185 - 205
- D. 210 - 225

11. A _____ should be mechanically fastened over all cement wood fiber panel roof decks prior to installation of insulation board.

- A. layer of sheet metal
- B. fiberglass membrane
- C. layer of fiberboard
- D. base sheet

12. When applying the second course of roll roofing parallel to the eaves by the exposed nail method, the second course should lap the first course by _____ inches in accordance to NRCA.

- A. 2
- B. 3
- C. 4
- D. 6

13. What should be done to plastic cement to protect it against the elements and prolong its life as a flashing sealant?

- A. Seal it with caulk.
- B. Paint it with all weather paint.
- C. Paint it with aluminum paint.
- D. Nothing, its life cannot be prolonged.

14. Selvage double cover roofing paper is produced as a _____ inch wide sheet and may be used on slopes down to _____ inches.

- A. 17- 2
- B. 19 -5
- C. 34 -2
- D. 36 - 1

15. When reroofing for an existing asphalt shingle roof the first step is to _____.

- A. clean the gutter
- B. install the edging under the shingles
- C. trim the old shingles back from the edge
- D. apply metal edging

16. Low sloped roofs are those roofs having slopes of between _____ and _____ inches per foot.

- A. 2 - 6
- B. 2 -4
- C. 3 - 6
- D. 3 -4

17. Precast concrete roof deck should be primed with _____ prior to installation of the insulation boards.

- A. concrete surface sealer
- B. asphalt cutback
- C. elastometric sealer
- D. type II asphalt

18. When installing asphalt roll roofing material parallel to the eaves in the exposed nail method, nails should be spaced _____ inches on center according to the NRCA.

- A. 2
- B. 4
- C. 6
- D. 8

19. According to the Roofer's Handbook, where on the slope is the best location to start reroofing operations on a hip roof?

- A. At the left edge.
- B. Half way between the left and right edges.
- C. At the right edge.
- D. There is no best location.

20. For two plies of number 15 asphalt saturated (pererated) organic felt on nailable decks, the plies will be lapped _____ inches leaving an exposure of _____ inches.

- A. 8 - 18
- B. 13 - 23
- C. 19 - 17
- D. 21 - 15

21. Six inch wide end laps shall be secured after cementing with nails spaced inches on centers when applying roll roofing using the concealed nail method according to the Residential Asphalt Roofing Manual.

- A. 2
- B. 3
- C. 4
- D. 5

22. The bottom of plywood used in poured concrete roof decks _____.

- A. should not be painted.
- B. may be painted with breather type paint.
- C. may be painted with a water base interior paint.
- D. should be painted with oil base paint.

23. The length of roofing nails should be at least _____ inches when applied to strip shingles over new plywood roofs.

- A. 1
- B. 1 - 1/4
- C. 1 - 1/2
- D. 1 - 3/4

24. According to The Roofer's Handbook, the best type of valley to use on a chimney is _____.

- A. smooth
- B. laced
- C. 1/2 laced
- D. VV shaped

25. A full laced valley can be used on most roofs having a pitch of at least _____.

- A. 1 - 12
- B. 2 - 12
- C. 3 - 12
- D. 4 - 12

26. The proper term for applying shingles diagonally is the _____ method.

- A. stair - step
- B. straight up
- C. laced
- D. drift down

27. According to the NRCA, deck deflection should be limited to the _____ of the total span.

- A. 1/22
- B. 1/240
- C. 1/300
- D. 1/360

28. You should lap 15 pound felt underlayment _____ inches at the top or head and inches at the lap for a 4 in 12 pitch when applying strip shingles over new deck.

- A. 4-4
- B. 2-4
- C. 4- 2
- D. 4-6

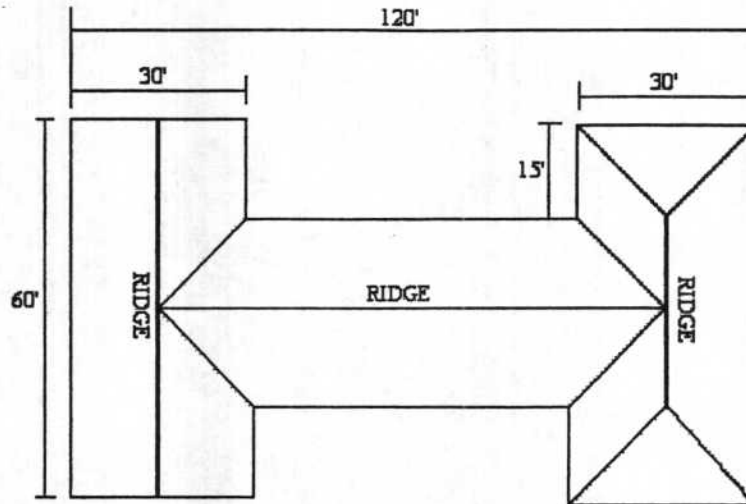
29. When installing asphalt roofing material parallel to the rake, the NRCA recommends the lower end of the sheet shall project _____ over the eaves in the exposed nail method.

- A. 1/8 to 1/4 inches
- B. 1/4 to 3/8 inches
- C. 3/8 to 5/8 inches
- D. 5/8 to 11/16 inches

30. A _____ should be installed at the back face of chimneys to prevent snow build-up and to divert water flow.

- A. cricket
- B. rake
- C. cart
- D. curb

QUESTIONS 31 THROUGH 40 REFER TO THE ROOF PLAN SHOWN BELOW:



ROOF PLAN WITH A UNIFORM 7 IN 12 RISE AND RUN

31. The total length of the ridge is _____ feet.

- A. 120
- B. 150
- C. 180
- D. 210

32. The total length of the valleys is _____ feet.

- A. 45.9
- B. 89.4
- C. 90.0
- D. 91.8

33. The total net area of the roof is _____ squares.

- A. 59.5
- B. 62.5
- C. 65.5
- D. 68.5

34. The total length of the rake required is _____ feet.

- A. 60.0
- B. 69.5
- C. 90.0
- D. 120.0

35. The total length of hips is _____ feet.

- A. 23.3
- B. 30.4
- C. 91.8
- D. 123.8

36. The total length of the drip edge required for the building is _____ feet.

- A. 420
- B. 430
- C. 440
- D. 450

37. Celotex, Sol-Seal/20 Shingles are specified for this roof. Disregard the effect of ridge or valley or starter shingles and assume no waste factor and five-inch exposure. How many bundles of shingle are required for the roof?

- A. 812
- B. 188
- C. 243
- D. 249

38. How many nails are required to fasten the shingles to the roof? Select the closest answer.

- A. 18,000
- B. 19,000
- C. 20,000
- D. 21,000

39. How many pounds of 1 - 1/4 inch roofing nails are required for this job? Select the closest answer.

- A. 125
- B. 130
- C. 135
- D. 140

40. What is the surface area of the roof portion bordered by the valleys (between the wings)? Select the closest answer.

- A. 2,250 square feet
- B. 2,425 square feet
- C. 2,600 square feet
- D. 2,775 square feet

ANSWER KEY FOR ROOFING CONTRACTORS EXAMINATION QUESTIONS

- | | |
|-------|-------|
| 1. C | 21. C |
| 2. C | 22. B |
| 3. C | 23. B |
| 4. B | 24. D |
| 5. D | 25. C |
| 6. D | 26. A |
| 8. C | 27. B |
| 9. C | 28. B |
| 10. C | 29. B |
| 11. D | 30. A |
| 12. A | 31. C |
| 13. C | 32. D |
| 14. D | 33. B |
| 15. C | 34. B |
| 16. B | 35. C |
| 17. B | 36. B |
| 18. A | 37. B |
| 19. B | 38. C |
| 20. C | 39. A |
| | 40. C |