

BUSI 401 – Answer Guide 9

CHAPTER 13: Industrial Properties CHAPTER 14: Agricultural Properties

1. Answer: 4

Option (4) is correct; modern light industrial buildings are frequently designed with tilt-up concrete construction. Compared to other alternatives, this type of construction tends to offer the best performance. Wood frame buildings were common in the past, but are not common today due to issues of economics, performance, and compliance to modern building codes [option (1)]. Masonry floors and flat roofing are not common today because of the risk of cracking, and most masonry buildings have flat or partially pitched roofing [option (2)]. Pre-engineered buildings are very common, but are known to suffer from risks of leakage so they are less popular than tilt-up concrete buildings [option (3)].

2. Answer: 3

Statements A, C, and D are true. Special use buildings require specific care and maintenance that make it difficult to use the property for other purposes. Food processing, oil storage, and cold storage facilities are all examples of special use buildings. Statement B is false; a toy assembly factory would not be classified as a special use building as this would be a type of manufacturing building.

3. Answer: 4

Statements B, C and D are false. They generally have ample customer parking, typically have 10% of the total floor areas for office space and are usually one or two storeys high. Statement A is true.

4. Answer: 4

Option (4) is the best explanation. The appraiser should leave this section blank, but should also provide an explanation in the report explaining the source of information and how credible it is. The appraiser should not check off this item because if the area is checked off, the disclaimer note could be missed.

5. Answer: 2

Statements B and C are false. Statement B because the span is defined as the distance between structural supports such as walls, columns, piers, beams, girders and trusses. The bay is the interval or space into which a building plan is divided by the columns or division walls. Statement C, because research and development facilities can have more than 85% of total space used for offices. Statements A and D are true.

6. Answer: 2

Option (2) is correct as the valuation of urban properties considers the strength of the property's tenants and its ability to generate income, while rural valuation considers the productivity of the land. Option (1) is incorrect as appraisal of all types of properties must consider the effects of externalities in the analysis of the property. Option (3) is incorrect because the comparative approach for appraisal of agricultural properties still requires a market analysis to determine the strength of the property within its market. Option (4) is incorrect because both urban and rural properties are subject to the principle of conformity, which requires comparable properties to be similar in size, production, and appeal.

7. Answer: 1

Statement B is true. Statement A is false; locating within an industrial park has benefits, but it does not necessarily guarantee the tenant will occupy a site with a rectangular shape and building exposure. Statement C is false; locating in an industrial park segregates industrial properties, lessening the ease of accessibility. Statement D is false; properties within the park may share the burden of environmental controls, but cannot reduce their commitment to environmentally-safe production.

8. Answer: 2

Statement C is true because community amenities may be higher in Property A's neighbourhood. This would be a possible explanation for the higher property value despite a lower productivity. Statement A is false as transportation costs for Property B cannot account for the entire \$40,000 difference in property value. This is because the annual income generated by the property must be capitalized to determine the property value. If Property B has an annual transportation expense that is \$40,000 more than Property A, this would result in a property value this is much less than \$760,000. Property A may be located further away from the urban core than Property B; however, statement B is false because this would not explain the reason for the difference in property value because transportation costs increase as distance from the urban core increases. Climatic conditions may be better in Property B's neighbourhood, but statement D is false because a better climate would suggest higher productivity and a higher property value.

9. Answer: 1

Option (1) is correct because as population density increases, government will rezone agricultural land to allow for development of residential and commercial land uses. Option (2) is incorrect because location theory suggests that the land value of both properties should increase as distance from the urban core decreases. Economic theory suggests that transportation costs are not impacted beyond a distance of 10 kilometres from the urban core. Since Property B is 8 kilometres from the urban core, the extension of the city by 1 kilometre may decrease transportation costs for Property B. However, since Property A is located 20 kilometres from the city, option (3) is incorrect because the growth of the urban core has a negligible effect on transportation costs.

10. Answer: 1

Option (1) is correct as it is possible that rental rates will rise and, since they did not adopt the subsidy program, Property B may be forced out of the market. Option (2) is incorrect as the subsidization of a particular type of crop incentivizes farmers to reduce the diversity of their production and focus on growing the subsidized crop. Option (3) is incorrect as Property A's production costs will increase as they begin growing organic wheat. Although these costs may be subsidized, the costs of production will still be higher. Option (4) is incorrect as demand for agricultural land will rise in the short run as more suppliers enter the market, incentivized by the subsidy program.

11. Answer: 1

Option (1) is correct; because of the nature of its tenants' operations, manufacturing buildings are energy intensive and require additional electrical service. Option (2) is incorrect; warehouses typically have extra loading docks and bays for transport trucks. Additional loading docks are not generally a characteristic of manufacturing buildings that differentiates them from other industrial properties. Option (3) is incorrect; industrial buildings have a typical land to building /floor space ratio (FSR) between 1.8 to 3.5 to allow for storage, parking and expansion. Option (4) is incorrect; high technology and multi-tenant property buildings will generally have office spaces of well over 50% of total space. Manufacturing buildings tend to have around 10% of their area allocated to office space.

12. Answer: 3

Statements C and D are true. Statement C is true because, in the rectangular survey system, townships and ranges are drawn on maps and the intersections determine boundaries and points of reference. Townships can be divided into 36 sections of 640 acres each and each section can then be divided further into 16 parts of 40 acres each. Statement D is true because townships can be divided into a total of 576 40-acre parcels. Statement A is false as the metes and bound system of legal description determines real estate boundaries in agricultural areas by citing natural or man-made landmarks. Statement B is false because tracts are only divided into lots just prior to development in the recorded plat system.

13. Answer: 4

None of the characteristics describe an area of agricultural land; therefore, Option (4) is the correct answer. Option (1) is incorrect as an appraiser would not describe soil as highly fertile as a result of adverse climate conditions. Option (2) is incorrect because animal units per month (AUM) is a measure of carrying capacity and is not applicable to soil texture. An appraiser can determine that an area's carrying capacity is high if it has a strong range condition, but the same is not always true in reverse. Option (3) is incorrect because a high carrying capacity does not directly result in strong range conditions.

14. Answer: 2

Statement D is true because plottage is only considered economically efficient when the utility generated by the conjoined land parcels exceeds the utility generated in their current use. Statement A is false because demand for plottaged land can be higher than demand for smaller land parcels in a market that obtains greater utility from plottaged land. Statement B is false because a 5-acre land parcel will generally sell for more per unit of area than a 10-acre land parcel; there is typically a larger market for smaller land parcels, which drives the marginal price of land up. Statement C is false because assemblage of multiple land parcels by a rational actor will only occur if they believe that the utility generated by plottaged land will exceed the costs incurred.

15. Answer: 1

Option (1) is correct as the massive perimeter fencing would be recorded as an on-site improvement and requires valuation. The hippopotamus transportation vehicle is a chattel, but does not require valuation. This is because chattels are used for business operations and are movable. The current owners will remove or dispose of the vehicle; therefore option (2) is incorrect. Option (3) is incorrect as the in-ground pool would be recorded as a fixture as it is not easily removable and requires valuation.

16. Answer: 3

Statements B and C are true. Statement A is false because the dolphin breeders do not require the reinforced fencing, and would view it as an over-improvement that does not provide them with positive utility. Statement D is false because the in-ground pool is a site improvement that increases the utility the dolphin breeders receive from the property as they can use the pool for breeding.

17. Answer: 2

Statements A and D are true as clay- or cement-lined berms can be used to contain seepage and because placing pits under the slats in hog barns is a technique used to control animal waste. Statement B is false as septic systems are used to handle human waste, not animal waste. Statement C is false because land tiling is used to remove excess water from land. You do not want to encourage the drainage of animal waste off of land.

18. Answer: 3

Option (3) is correct; the building may have high power requirements for machinery, travelling craneways for the movement of parts, and clear spans between 21 and 35 square feet. Option (1) is incorrect as the apron space for transport trucks is the required turning area and must be a minimum of approximately twice the length of the truck. Option (2) is incorrect as the floor of a manufacturing plant must have a minimum 125 pound live-load capacity.

19. Answer: 4

Statements B, C, and D are true. The building is constructed with a saw-tooth roof, which uses skylights to allow natural light in the building and reduce energy needs (Statement B). Pre-engineered buildings are known to be used as recreational facilities, or for agricultural use (Statement C). Pre-engineered buildings are generally constructed with a steel frame and metal siding (statement D). Statement A is false; a Division III occupancy classification suggests that activity within the building is low hazard and that equipment and operations do not have a high fire load.

20. Answer: 4

Option (4) is correct. As a general rule, appraisers should qualify the valuation on the basis of the limiting factor. If an operator has more animals than permitted, the valuation should be completed on the basis of the size limit set by the regulator, not on the animal head count on the farm.