GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY

SELECTION TEST FOR THE ENROLLMENT OF DAY SCHOLARS - INTAKE 41

Bachelor of Architecture Honours, Bachelor of Science Honours in Surveying Sciences and Bachelor of Science Honours in Quantity Surveying Degree Programmes

SUBJECT KNOWLEDGE - 2023

Instructions: **Duration: 20 minutes**
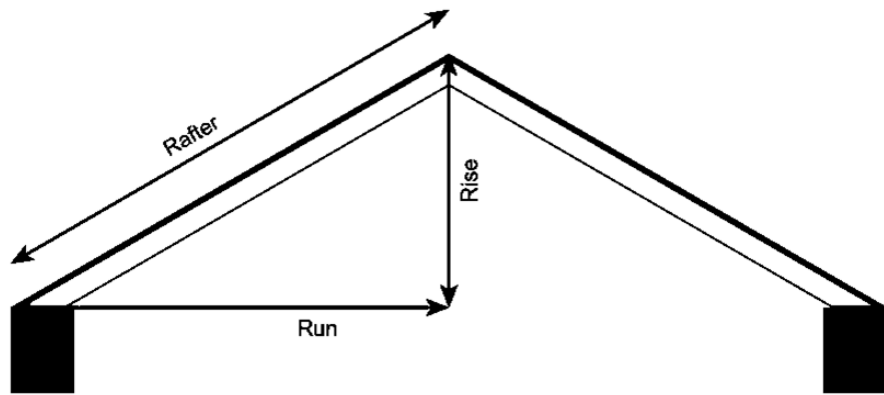
- This quiz contains 25 multiple-choice questions (MCQs).
- Answer ALL questions.
- All questions carry equal marks.
- This is a closed book examination.
- Calculator is allowed. (Silent, without casing, not more than 256kb memory)
- All examinations are conducted under the rules and regulations of the KDU.

MCQs

1. Length and width of a field are in the ratio 5:3. If the width of the field is 42 m, then its length is;
   - **A.** 100 m
   - **B.** 80 m
   - **C.** 50 m
   - **D.** 70 m

2. The surface area of a cube whose edge equals to 3cm is;
   - **A.** 62 sq.cm
   - **B.** 30 sq.cm
   - **C.** 54 sq.cm
   - **D.** 90 sq.cm

3. What are the dimensions which need to calculate the area of a wall?
   - **A.** Radius, height
   - **B.** Length, width
   - **C.** Length, height
   - **D.** Length, thickness

4. The curved surface area of a right circular cylinder of height 14 cm is 88 cm^2. The diameter of the base is:
   - **A.** 2cm
   - **B.** 3cm
   - **C.** 4cm
   - **D.** 6cm

5. Find rafter length of this pitch roof? Dimensions for rise = 3m and run = 4m.
   - **A.** 2m
   - **B.** 5m
   - **C.** 4m
   - **D.** 10m

6. The diameter of the base of a cone is 10.5 cm, and its slant height is 10 cm. The curved surface area is:
   - **A.** 150 sq.cm
   - **B.** 165 sq.cm
   - **C.** 177 sq.cm
   - **D.** 180 sq.cm

7. What is not a Dam in Sri Lanka?
   - **A.** Randenigala Dam
   - **B.** Babaragala Dam
   - **C.** Kotmale Dam
   - **D.** Moragahakanda Dam

8. If the radius of cylinder is halved and height is doubled, then what will be the curved surface area?
   A. increase by 1
   B. the same
   C. double
   D. triple

9. Two right circular cones of equal curved surface areas have slant heights in the ratio of 3:5. Find the ratio of their radius
   A. 4 : 1
   B. 3 : 5
   C. 5 : 3
   D. 4 : 5

10. The person who is physically doing the constructions at site is,
    A. The Client
    B. The Contractor
    C. The Consultant
    D. The Plant hirer

11. In the cylindrical container, the base radius is 8 cm. If the height of the water level is 20 cm, find the volume of the water in the container.
    A. 5.6721 liter
    B. 4.0218 liter
    C. 3.8925 liter
    D. 4.97 liter

12. What is the main use of a BOQ?
    A. Cost management
    B. Quality management
    C. Time management
    D. Risk management

13. A glass of cylindrical shape has radius of 3.5cm and height equal to 8cm. A water jug has a volume equal to 1540cm^3. How many times the water has to be poured from glass to fill the jug completely?
    A. 6
    B. 5
    C. 4.5
    D. 4

14. What is the current VAT (Value Added Tax) percentage in Sri Lanka?
    A. 8%
    B. 12%
    C. 15%
    D. 20%

15. A cylinder has a base area equal to 21cm^2 and height equal to 11cm. What is the volume of the cylinder?
    A. 230cm^3
    B. 220cm^3
    C. 225cm^3
    D. 231cm^3

16. Following figure shows the reinforcement arrangement of a column and a stirrup. Height of the column is 3500mm and stirrups are bound throughout the column with 200mm center to center spacing. How many numbers of stirrups are needed to the reinforcement arrangement of this column?
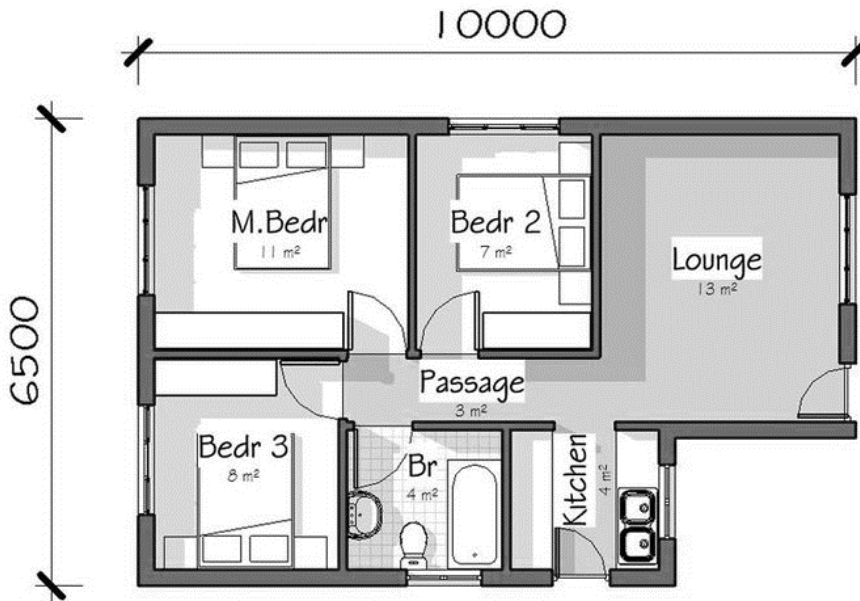

    A. 17
    B. 18
    C. 19
    D. 20

17. What is the purpose of using a contract document for a construction project?
    A. It is a contract agreement between client and consultant
    B. It is a contract agreement between consultant and contractor
    C. It is a contract agreement between client and contractor
    D. It is a contract agreement between contractor and government

18. What is the main role of the Quantity Surveyor of a construction project?
    A. Time management
    B. Quality management
    C. Cost management
    D. Safety management

19. What is the purpose of a *'Patimaghara'* in Buddhist Architecture?
    A. It is a *'stupa'* which housed the sacred relics associated with the Buddha or other saintly persons
    B. It is an image-house, essentially preserve the memory of the Buddha
    C. It is a wall where *'Bo'*-tree was venerated
    D. It is a monastery where the community of monks living under religious vows

20. What is the tallest structure in Sri Lanka?
    E. Altair Tower
    F. The Lotus Tower
    G. World Trade Centre
    H. Pearl Grand Tower

21. What is not a metric unit?
    A. Meter
    B. Grams
    C. Second
    D. Inch

22. Select the sustainable material combination among the list?
    A. Concrete and Glass
    B. Glass and Steel
    C. Polycarbonate and Glass Fiber
    D. Bamboo and Rammed Earth

23. What is the first accounted *'Tampita Vihara'* (Temple on Pillars) in Sri Lanka
    A. Medawala Tampita Vihara
    B. Dambulla Rock Temple
    C. Panduwasnuwara Raja Maha Vihara
    D. Menikkadawara Tampita Rajamaha Vihara

24. Following figure shows the basic plan of a house. What is the total length of the external wall foundation? (Length and width of the house is in mm)

    A. 13 m
    B. 33 m
    C. 43 m
    D. 23 m

25. Select the building combination which is not consider as skyscrapers?
    A. Petronas Twin Towers, Malaysia and Burj Khalifa, Dubai
    B. HSBC Building, Hong Kong and Turning Torso, Sweden
    C. Altair, Colombo and Clear point Residencies, Rajagiriya
    D. Sydney opera house and Acropolis of Athens, Greece

- End of Question Paper -