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BUGESERA DISTRICT

**TSS 2nd TERM DISTRICT COMPREHENSIVE ASSESSMENT
SCHOOL YEAR: 2024-2025**

SECTOR: Construction and building services

.../100 MARKS

TRADE: Building construction

RQF LEVEL: 3

MODULE CODE AND TITLE: BDCOF301: OPENING FIXATION

DURATION: 3hours

DATE: / / 2025

INSTRUCTIONS TO CANDIDATE:

- ✓ **This exam has three sections.**
- ✓ **Maximum marks.../...100. Marks**
- ✓ **Attempt all Questions in A**
- ✓ **Choose only two questions in section B.**
- ✓ **Choose only one question in section C.**
- ✓ **Use pencil for drawing**

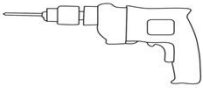
**TSS 2nd TERM DISTRICT COMPREHENSIVE ASSESSMENT
SCHOOL YEAR: 2024-2025**

SECTION A: Attempt all Questions /55marks

Q1.What do you understand the following terms:/5marks

- a. Door
- b. Door shutter
- c. Window frame
- d. Chisel
- e. Steel float

Q2. List the names of following tools and equipment used in opening fixation and its function for each. /5marks



a).....



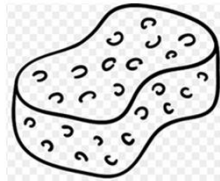
b).....



c).....



d).....



e).....

Q3.With clear sketch show any four (4) types of signpost. /4marks

Q4. Answer True or False. /4marks

- a. Personal protective equipment (PPE) for opening fixation includes only gloves and masks, as no other protection is necessary.
- b. Coarse aggregate makes solid and hard mass of concrete with cement and sand.
- c. Water is only the ingredient that reacts chemically with cement and thus setting and hardening takes place.
- d. The main function of door is to maintain privacy and safety inside the room or house when it is opened.

Q5. Why do we need to revise drawing plan before performing opening fixation? Any five (5) reasons. /5marks

Q6. The materials used in the construction of Engineering Structures such as buildings, bridges and roads are called Engineering Materials or Building Materials. Outline any four (4) mechanical properties of building materials. /4marks

Q7.a. Mention any three (3) the factors needed for selecting the size, shape, location and number of windows in a room. / 3marks

b. State any four (4) types of doors based on the method or manner of construction? /2marks

Q8. Provide the name of following symbols below: /5marks



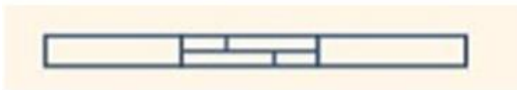
a).....



b).....



c).....



d).....



e).....

Q9. What are features and characteristics of framed and panelled doors? / 4marks

Q10. Draw pivoted window and fill the following parts: head, jamb, top rail, cill, keep, catch, pivot hinge. /5marks

Q11. Outline any four (4) merits of flush doors. /4marks

Q12. Describes any four (4) reasons of wearing PPE in the work place during opening fixation works. /4marks

SECTION B: Attempt any two (2) questions

/ 30marks

Q13.I. A house have five (5) doors of size $1\text{m} \times 2.1\text{m}$ each and six (6) windows of size $1.2\text{m} \times 1.5\text{m}$ each, if the mortar used for fixing is 1:4 and the average mortar thickness is 20mm, determine. / **10marks**

- a. The total volume of mortar.
- b. The total cement requirements in bags.
- c. The total sand quantity.

II. State any two (2) types of rolling shutters. / **5marks**

Q14. I. With aid neat sketch differentiate dormer window from gable window. / **5marks**

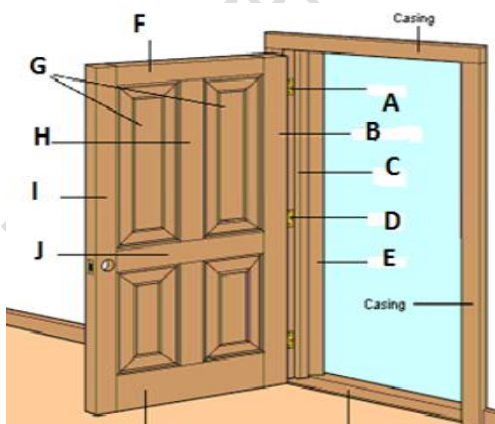
II. What are advantages of using steel windows and doors over timber? / **10marks**

Q15. I. The width of the door should be such that two persons can pass through it walking shoulder by shoulder, Compare the classification of doors based on arrangement of components and Based on how they are constructed (especially construction materials). / **10marks**

II. Give the sizes of doors for the following residential buildings: / **5marks**

- a. Garage for cars.
- b. Doors for bathrooms and water closets.

Q16. Name the parts of doors and its function for each parts (A, B, C, D, E, F, G, H, I, J). / **15marks**

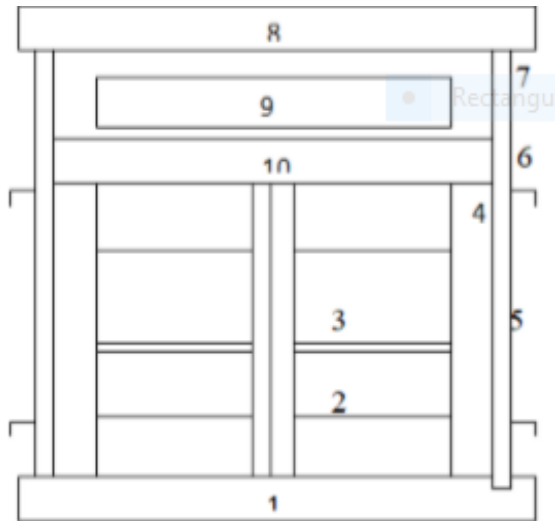


SECTION C: Attempt only one (1) question

15marks

Q17. After defining the term hinges, explain clearly ten (10) types of hinges used in opening fixation. / **15marks**

Q18. . Redraw and show at least 10 parts of fixed windows and its function for each part. / **15marks**



GOOD LUCK!