

# **WASSCE / WAEC BUILDING CONSTRUCTION SYLLABUS**

[WWW.LARNEDU.COM](http://WWW.LARNEDU.COM)

Visit [www.Larnedu.com](http://www.Larnedu.com) for [WASSCE / WAEC syllabus](#) on different subjects and more great stuff to help you ace the WASSCE in flying colours.

## **STRUCTURE AND SCHEME OF THE EXAMINATION**

The Examination shall consist of three (3) papers, all of which must be taken.

Paper 1 shall consist of forty (40) multiple choice questions for 40 marks and shall last for 45 minutes.

Paper 2 shall be an essay paper consisting of 5 short structured questions, 4 of which should be answered in 1 hour for 60 marks.

Paper 1 and 2 shall be a composite paper of 1¾ hours duration for 100 marks.

Paper 3: 2½ hours duration for 100 marks

Paper 3 shall be a paper in Building Drawing and shall consist of 4 questions. Candidates shall be required to respond to 1 compulsory question and any 2 other questions.

The compulsory question shall carry 40 marks. The 3 other questions shall carry 30 marks each.

## **DETAILED SYLLABUS**

| <b>S/NO.</b> | <b>CONTENT</b>                              | <b>NOTES</b>  |
|--------------|---|---|
| 1            | Introduction to Building                    | (i) Definition of building<br>(ii) Classification and types<br>(iii) Introduction to National Building Codes.<br>(Building regulations and Byelaw requirements)   |
| 2            | Building Construction and Construction Team | (i) Definition, purpose and procedures for building construction<br>(ii) Parties in the construction team. (Client's team, contractor's team and statutory personnel.<br>(iii) Function of the team members.<br>(iv) Relationship of the parties. |

|   |                   |  |
|---|-------------------|--|
| 3 | Safety Practices. | <ul style="list-style-type: none"><li>(i) Definition of safety, rules and regulation.</li><li>(ii) Hazards in the workshop and construction site.</li><li>(iii) Causes and method of accident prevention.</li><li>(iv) Safety equipment and measures at construction site.</li><li>(v) First aid equipment, procedures and safety wears.</li><li>(vi) Safety in working with dangerous equipment</li></ul> |
|---|-------------------|--|

|              |                                     |   |
|--------------|-------------------------------------|---|
|              |                                     | and materials (electricity, scaffolding, formwork, cement, roof, etc).  |
| 4            | Basic tools, equipment and machines | (i) Identification and functions of basic.<br>(ii) Tools and equipment.<br>(iii) Care of tools and equipment.   |
| 5            | Site clearing and levelling         | (i) Operations involved in site clearing.<br>(ii) Tools and equipment for site clearing and levelling.<br>(iii) Basic site levelling operations.  |
| 6            | Site organization and layout        | (i) Preliminary operations in building construction.<br>(ii) Procedure for site layout.<br>(iii) Location, boundary lines, hoarding, hutments and access road.  |
| 7            | Setting out                         | (i) Methods of setting-out. (3:4:5 method, Builders' square method).<br>(ii) Tools and equipment for setting out.   |
| <b>S/NO.</b> | <b>CONTENT</b>                      | <b>NOTES</b>  |
|              |                                     | (iii) Procedures for setting out.   |
| 8            | Building Drawing                    | (i) Use of drawing tools and simple exercise on plane geometry in relation to building.<br>(ii) Building drawing symbols<br>(iii) Scales used in building and their application on site.<br>(iv) Production drawings and interpretations (Plans, Elevations, sections and details).<br>(v) Special details (Detailing building elements including doors and windows schedule).<br>(vi) Scaling (Enlargement, pictorial and perspectives.<br>(vii) Definitions and use of Auto-CADD. |
| 9            | Excavation and earth-work.          | (i) Classifications, types and properties of soil.<br>(ii) Definition and function of excavation.<br>(iii) Methods of excavations.<br>(iv) Tools, equipment and plant used for excavation.<br>(v) Solution to excavation problems (Earthwork support, timbering battering and dewatering).<br>(vi) Safety rules during excavations.   |

|              |                  |  |
|--------------|------------------|--|
| 10           | Foundation       | (i) Definition, purpose and functional requirement of foundation.<br>(ii) Types of foundation.<br>(iii) Factors that determine choice of foundation.   |
| 11           | Ground Floors    | (i) Types, functions and functional requirement of ground floor.<br>(ii) Methods of construction ground floor.<br>(iii) Definition of basement.<br>(iv) Explain differences between building with basement and without basement.<br>(v) Problems relating basement in a building.  |
| 12           | Suspended floors | (i) Definition and functions of upper floor<br>(ii) Methods of construction concrete floors and timber upper floors.   |
| <b>S/NO.</b> | <b>CONTENT</b>   | <b>NOTES</b>   |
| 13           | Concrete         | (i) Definition and types of concrete.<br>(ii) Materials for concrete.<br>(iii) Definitions types, components and manufacture of cement. Properties and uses of cement including other alternatives to cement product e.g. Pozzolana, Pulverize fuel Ash (P.F.A.), Rice husk ash (R.H.A), etc<br>(iv) Types and uses of aggregates (other aggregates such as palm kernel shell) and periwinkle, etc.<br>(v) Types and uses of reinforcements.<br>(vi) Properties and characteristic of concrete<br>(vii) Process of concrete production.<br>(viii) Types of concrete tests. |
| 14           | Walls            | (i) Definition, types and functions of walls<br>(ii) Definition, types and properties of walling materials. (including locally sourced materials).<br>(iii) Manufacturing processes of walling materials (clay, brick, blocks and concrete blocks).<br>(iv) Sizes of blocks and bricks.  |

|              |  |   |
|--------------|--|---|
|              |  | <ul style="list-style-type: none"> <li>(v) Mortar mixes for brick.</li> <li>(vi) Methods of wall construction</li> <li>(vii) Timber wall construction.</li> <li>(viii) Definition and function of wall openings.</li> <li>(ix) Methods of constructing wall opening.</li> <li>(x) Functions of lintels and arches.</li> </ul>   |
| 15           | Doors and windows                                | <ul style="list-style-type: none"> <li>(i) Definition, functions and types of doors and windows.</li> <li>(ii) Methods of mixing doors and window frames.</li> </ul>  |
| 16           | Staircases                                       | <ul style="list-style-type: none"> <li>(i) Definition, classification, types and uses of stairs.</li> <li>(ii) Materials used for construction of stairs.</li> <li>(iii) Materials used for finishing staircases.</li> </ul>  |
| <b>S/NO.</b> | <b>CONTENT</b>                                   | <b>NOTES</b>  |
| 17           | Plumbing installations and drainage system.      | <ul style="list-style-type: none"> <li>(i) Types of fitting in plumbing and sanitary works.</li> <li>(ii) Materials for plumbing works and fittings.</li> <li>(iii) Types of sanitary appliances.</li> <li>(iv) Soil and waste appliances.</li> <li>(v) Installation of sanitary appliances.</li> <li>(vi) Terms used in drainage works.</li> <li>(vii) Principles and functional requirement of drainage system.</li> <li>(viii) Types of drainage system.</li> <li>(ix) Types of drainage materials (pipes and fittings).</li> <li>(x) Methods of laying and testing drain lines.</li> <li>(xi) Description of septic and soakaway (inspection chamber, manhole, etc).</li> </ul> |
| 18           | Electrical installation and solar energy system. | <ul style="list-style-type: none"> <li>(i) Electrical symbols, installation terms and materials.</li> <li>(ii) Identification and uses of electrical wiring materials.</li> <li>(iii) Types of electrical wiring.</li> <li>(iv) Definition, functions and components of solar energy systems.</li> </ul>  |
| 19           | Roofs  | <ul style="list-style-type: none"> <li>(i) Definition, purpose and types of roof.</li> <li>(ii) Functional requirements of roof.</li> </ul>   |

|              |   |   |
|--------------|---|---|
|              |   | (iii) Materials used for roofs.<br>(iv) Roof covering materials.<br>(v) Protection of roof from wind, rain, lightening, etc.  |
| 20           | Finishes  | (A) <u>Floors:</u><br>(i) Types and characteristics of floor finishes.<br>(ii) Methods of laying floor finishes.<br>(iii) Uses of floor finishes.<br>(iv) Care and maintenance of floor finishes.<br>(B) <u>Walls</u><br>(i) Types and characteristics of wall finishes   |
| <b>S/NO.</b> | <b>CONTENT</b>  | <b>NOTES</b>  |
|              |   | (ii) Plastering and rendering<br>(iii) Types of rendering<br>(iv) Methods of applying plastering and rendering mix.<br>(C) <u>Ceiling:</u><br>(i) Types and function of ceiling finishes.<br>(ii) Ceiling finishing materials.  |
| 21           | External Work.  | (i) Types of fence, materials for fencing and construction of fence.<br>(ii) Types of gate, fixing of gates and production of gate.<br>(iii) Types and materials for construction of access roads.<br>(iv) Construction of access road.<br>(v) Needs and materials for landscaping.<br>(vi) Procedures for landscaping. |
| 22           | Types of Business Organization and Ways of Raising Capital. | (i) Principles and Management of Business Organization in the building industry.<br>(ii) Types of Business Organization in the Building Industry.<br>(iii) Types and sources of Capital.  |
| 23.          | Book Keeping  | Book Keeping:<br>(i) Book Keeping in small scale businesses.<br>(ii) Books of original entries.   |

|    |               |   |
|----|---------------|---|
| 24 | Contract Work | Contract Work:<br><br>(i) Definition and types of contract.<br>(ii) Contract documents.<br>(iii) Parties to a contract. |
|----|---------------|---|

### **SUGGESTED READING LIST**

| <b>S/NO.</b> | <b>AUTHOR</b>                            | <b>TITLE OF BOOKS</b>  | <b>PUBLISHER</b>           |
|--------------|--|--|----------------------------|
| 1            | Stephen Emmitt and Christopher A. Gorse. | Barry's Introduction to Construction in Buildings                        | Blackwell Publishing       |
| 2            | M. O. Obande                             | Blocklaying and Concreting   | Longman Publishing Company |
| 3            | R. Barry                                 | The Construction of Buildings Vols I–V                                   | Granada                    |
| 4            | Ivor H. Seeley                           | Building Technology  | Palgrave                   |
| 5            | S. C. O. A. Ezeji                        | Building Construction  |                            |
| 6            | Nash                                     | Brickwork Vols 1 – 3   |                            |
| 7            | R. Chudley                               | Building Construction Handbook   | Billing & Sons Ltd.        |
| 8            | W. B. Mckay                              | Building Construction Vols 1 – 4   |                            |
| 9            | Roger Greeno                             | Principles of Construction   |                            |
| 10           | Adesokan and M. O. Adeniyi               | Building Construction for Senior Secondary Schools Vols 1 – 3 (Ilesanmi) |                            |
| 11           | R. Chuelley                              | Construction Technology Vols 1 – 4                                       | Longman                    |
| 12           | C. M. H. Barritt                         | Advanced Building Construction Vols 1 & 2                                | Longman                    |

Visit [www.Larnedu.com](http://www.Larnedu.com) for [WASSCE / WAEC syllabus](#) on different subjects and more great stuff to help you ace the WASSCE in flying colours.

**GOOD LUCK!**