EiABC
Ethiopian Institute of Architecture, Building Construction and City Development
Addis Ababa University

MODEL EXIT EXAM FOR ARCHITECTURE PROGRAM

Academic Year :May 2023

INSTRUCTIONS:

- ATTEMPT ALL QUESTIONS ON THE BASIS OF SPECIFIC INSTRUCTIONS AS INDICATED IN EACH SECTION
- TIME ALLOWED: 3 HOURS
- THIS IS A CLOSED BOOK EXAMINATION
- ALL QUESTION ARE FORMULATED IN MULTIPLE CHOICE FORMAT
- PUT YOUR ANSWERS IN A SEPARATE ANSWER SHEET ATTACHED TO THE EXAM
- SWITCH OFF YOUR MOBILE PHONE

TOTAL NUMBER OF QUESTIONS: 100

Part I: Architectural design thematic area: 66

Part II: Building Construction thematic area:18

Part III: Theory and History of Architecture : 9

Part IV. Professional Practice and Ethics: 7

DO NOT TURN THIS PAGE UNTIL YOU ARE ALLOWED TO DO SO

Name _____

ID _____

THEME 01: Architectural Design

1. Which one of the following is a possibility about quality of architectural space?
   A. It is experiential B. It is visual C. It is tactile
   D. (a and b) E. All

2. Which one of the following statement is correct?
   A. Plane is conceptually three-dimensional element of design
   B. A line may appear as a point in space whereas a plane always appear as a plane.
   C. Architectural space is certainly unintentional
   D. Hollowness can be a quality of architectural space
   E. none

3. From the given choices below which principle do you think is inapplicable for relating architectural spaces?
   A. Environmental B. Visual C. Physical D. Materiality E. None

4. Mr. Nuggois living in a residential neighborhood. Currently, he wants to rent a room which is part of his residence and is located adjacent to access road. From different possibilities, which activity do you think is recommendable?
   A. Metal workshop, if he gets better price offer.
   B. Coffee roasting workshop, as long as drinking coffee is the community's culture.
   C. Tailor's shop, in the case it is located at a prime access point in the neighborhood.
   D. Music shop, to entertain the neighborhood residents with the music using a load speaker.
   E. All

5. Which one of the following approach is appropriate in the process of architectural design development?
   A. Physical structure preceding spatial structure to flexibly host users' experience.
   B. Consideration of materials as visual as well as tactile experience
   C. Building envelope as an isolative boundary between the inside and the outside.
   D. Space programming as a process of qualifying space but not vice versa
   E. All

6. Numbers of individuals are engaged in group discussion in a particular space. Which one of the following scenario is unrealistic?
   A. In the case the number of the occupants outweigh the quantity of space, anthropometric standard is violated.
   B. In the case individuals are far apart and no one hear each other, ergonomic standard is violated.
   C. In the case the height of the space is too small, spatial scale is violated.
   D. In the case the space does not have any particular definition for the purpose, the persons are space defining elements.
   E. all

7. If someone is walking through a helical space with three more individuals, their spatial experience can be conceptualized as,
   A. Ascendance
   B. Decadence
   C. Rotational
   D. congestion
   E. All except d

8. The shape, visual appearance, constitution or configuration of an object is _____
   A. Elevation
   B. Materiality
   C. Form
   D. Section
   E. Plan

9. (According to) Aldo Rossi a building is a small city and the city is a big building. (He tried) wanted to show the clear relationship of multiple urban features with each other. In that sense, what would best fit to be considered the living room of a city?
   A. Sky scrappers
   B. Cinemas
   C. Public Spaces
   D. Religious buildings
   E. Schools

10. Modern city is often associated with the invention and use of Vehicles as a major means of transport. For example, large American cities are often considered as modern cities. On the contrary, cities like Rome are considered as traditional city. One of the following is not true about traditional cities.
    A. Traditional cities have streets
    B. Traditional cities are often smaller in size than modern cities
    C. Most Modern cities are not as compact as traditional cities
    D. Traditional cities are more walkable than modern cities
    E. Traditional cities have no landmarks

11. In “reading the reality” in the process of understanding context, what is the correct steps to follow?
    A. Data gathering-information assembling-creative engagement-building knowledge base-experiment
    B. Information assembling-experiment-building knowledge base- experiment -creative engagement
    C. Building Knowledge base- Information assembling- data gathering-creative engagement-experiment
    D. Data gathering-Information assembling- building knowledge base-experiment-creative engagement

12. In Urban Rural transect: one of the following is correct series following one another
    A. Natural zone-rural zone-sub urban zone-general urban zone-urban center zone-urban core-special district
    B. General urban zone-Natural zone-rural zone-sub urban zone- special district -urban center zone-urban core
    C. Sub urban zone -General urban zone-Natural zone-rural zone- - special district -urban center zone-urban core
    D. Rural zone- Natural zone- -sub urban zone-general urban zone- special district -urban center zone-urban core

13. which one of the following is a set of space qualifying and quantifying parameter.
    A. Point, line and plane
    B. Program, Context and Technology
    C. Economy, Politics and Social fabric
    D. Wind, Weather and infrastructure

14. An architect shall consider _____ as a unit while quantifying a space.

A. Furniture
B. Ergonomic standards
C. Anthropometric standards
D. Circulation

15. How does context affect architectural space

A. Through determining its form
B. Through determining its material
C. Through determining its orientation
D. All

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16. Which one of the following describes ground in figure-ground relationship?

A. Being memorable
B. Being in front
C. Seen as uniformed material
D. The contour supporting the figure from the ground to belong the Ground

17. The ultimate goal of planning a good interior space is the successful integration of the three objectives of aesthetic planning. Which one is not?

A. Beauty
B. Brightness
C. Expressiveness
D. Functionalism

18. Which one of the following doesn't influence the design Process?

A. Details of payment
B. Climate
C. Material
D. Design Concept

19. How do Architectural design concepts differ from concepts in other fields of study?

A. The language it uses to express itself
B. The way the process is represented
C. It has an implied spatial and material dimension
D. All of the above

20. Which one of the following is not the role of drawing in developing an architectural design project?

A. Telling the story of the design
B. To communicate with contractor

C. Generating concepts
D. Modifying ideas

21. Which one is concerned with measurements and proportions of the human body in static and dynamic conditions?
    A. Ergonomics B. Space syntax
    C. Anthropometrics D. Functionalism

22. Architectural Presentations don't require more
    A. Content B. Language C. Models D. None E. All

23. Which of the following is a not possible impact in altering/experimenting with different building materials on a design?
    A. Spatial atmosphere/experience
    B. Space utilization change
    C. Shelf life of the project will change.
    D. None

24. Think of your exam room and try to see the possible rearrangements of the space. Which one of the following describes your actions a few moments ago?
    A. Observing B. Reflecting C. Speculating D. Discovering

25. Which one of the following is a possible Architectural definition of space?
    A. Freedom to do what a person wishes to for his or her own personal development
    B. The region beyond the earth's atmosphere
    C. Finite environment within the infinite environment of nature
    D. The gaps between the five lines of a stave

26. Which one of the following is a not visual property of form?
    A. Shape B. Material C. Size D. Texture E. None

27. Turning implicit and impressionistic observation into explicit and tangible forms of expression is called?
    A. Analyzing B. Perceiving C. Processing D. A & C E. None

28. The moment of duality where the architecture creates a continuous spatial ensemble into the urban is called

A. Context B. Interface C. Urban ensemble D. All

29. Composition of an architectural element using similar or varied material components is called

A. Space B. Detail C. Form D. Interface E. All

30. Which one of the following tells satisfying load-bearing requirements with economy of means in structure and architecture relationship?

A. Structure Ignored
B. Structure Accepted
C. Structure Symbolized
D. Structure High-tech
E. none

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31. Which one of the following is the most appropriate procedure to follow towards identifying architectural project within an urban context?

A. URBAN analysis – Core Problem Identification – target group identification- Architectural program development
B. Urban analysis – Architectural program development – Target group identification
C. Urban analysis – Target group identification – Core problem identification – Architectural program development
D. Urban analysis – Core problem identification – Architectural program development – Target group identification

32. In a bottom-up Urban and Architectural design development which one of the following is given the least priority?

A. Economic sustainability of inhabitants
B. Motorized vehicle-oriented road network design
C. Consideration of incremental and flexible space provisions
D. Participation of end users/community from the inception of urban design development up to architectural project intervention

33. Which one of the following media is appropriate to apply in urban analysis (as an input for architectural design)
    A. Planner mapping
    B. Descriptive hand sketches
    C. Physical model
    D. All

34. Which one of the following should be given of the most priority in designing for the structural system of an architectural project
    A. Aesthetics of the final architectural form
    B. Saving of finance at all cost
    C. Stability of the building
    D. Maximization of building contractors' profit

35. Which of the following structural systems should an architect prefer in order to conceive a wide span space?
    A. Load bearing stone masonry system
    B. Space frame with structural steel profiles
    C. Waffle slab post & beam system
    D. Lightweight tensile structure

36. Which one of the following is not a necessary software knowledge for architects for the construction stage of an architectural project
    A. Knowledge on software's applied for developing working drawings (AutoCAD, Revit, Archi-CAD)
    B. Knowledge on 3 dimensional and animation rendering software's
    C. Quantity computing software's
    D. None of the above

37. In community based developmental design which one of the following is critical as an input?
    A. The architect perspective towards the community
    B. Government bodies perspective towards the community
    C. The community perspective towards the community
    D. International firms perspective towards the community

38. What's the role of the Architects in social architecture ?
    A. As decision makers
    B. As problem identifiers
    C. As solution givers
    D. As observers and facilitators
    E. A & C

39. While conducting target group study for either architectural or urban design project, which one is the best possible way to understand the target group in the community?
    A. To gather information from kebele or woredas
    B. Through observation of written data
    C. Through direct interviews and data records of daily activity
    D. Taking pictures
    E. All

40. One of the following is not a method of output in the schematic phase of Integrated design
    A. Study model making
    B. Detail drawing preparation
    C. Sketches and Illustration
    D. Zoning and Bubble map preparations
    E. none

41. What is(are) the mandatory field(s) of study to be integrated in contextual reading for an architectural design project in a particular site?
    A. Urban design
    B. Landscape design
    C. Building Construction (culture)
    D. All
    E. a & b

42. What is the most probable scale of urban analysis in architectural design process?
    A. 1:1000/1:2000 b. 1:100 c. 1:500 d. 1:200

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43. Architectural design involves the following processes, except?
    A. Planning B. Designing C. Structuring D. Building

44. What are the main components of a successful architectural thesis proposal for a study of architecture?

A. A well-defined spatial research problem
B. Well-formulated aim and objectives
C. A methodology design
D. All

45. Which of these are spatial qualities of interior space, except?

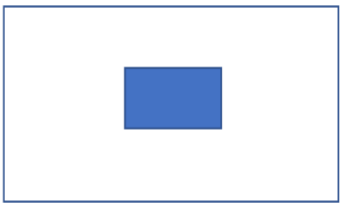
A. Degree of the enclosure B. View C. Light
D. Texture E. none

46. The work of an architect can be perceived by a society as, except?

A. Works of science
B. Works of art
C. Works of the wood
D. Works of psychology

47. Which one is the preferred vertical circulation or core placement for better structural stability in high-rise buildings?

A. 

B. 

C. 

D. 

48. What is Architectural programming in architectural design [for Building]?

A. Architectural programming is part of the pre-development phase of a building project.
B. It is the research and decision-making process that brings together your list of building wants and needs.

C. identifying the scope of work to be designed.

D. All

49. How do you develop an architectural program?

A. Research the project type.

B. Establish goals, objectives and Identify strategies.

C. Gather relevant information and determine quantitative requirements.

D. Summarize the program. E. All

50. Which one is among the aspects of Social Architecture?

A. People B. Activity C. Place D. All

51. Which aspect of architecture involves the observation, analysis and understanding of the connections between People, activity and Place.

A. Economic Aspect of Architecture.

B. Political Aspect of Architecture.

C. Environmental Aspect of Architecture.

D. Social Aspect of Architecture.

52. What kind of connotation do colors carry on a built environment?

A. Political B. Cultural C. Emotional D. Demographic E. All

53. What would be more appropriate approach in an urban setting like Addis Ababa while designing a building?

A. Bio mimicry B. Mathematical inspirations

C. Contextual understanding D. Tabula Rasa

54. What is the first evaluation criterion in site appropriateness for a specific program in a city?

A. Accessibility B. Neighborhood

C. Municipal Urban design guidelines D. Standard

55. Which one of the following is an appropriate shape for a kindergarten classroom to enhance student teacher communication

A. Circle B. Rectangle C. Square D. (A and C)

56. What kind of ventilation system should you propose to a hot and dry area like Afar region

A. Court-yard B. Cross ventilation C. Stack effect D. None

57. What should be the minimum width for a stair to allow two persons movement in a same or opposite direction?

A. 70cm B. 120cm C. 160cm D. 175cm

58. Which one of the following is not TRUE about Architecture and Architectural Research?

A. Architectural design is a means to gain original output, hence (it is a)research by itself.
B. Architecture as synchronized art and science cannot pass through the rigor of research.
C. Architecture cannot stand alone, but with all other engineering disciplines, that hardly make it an area of research.
D. All

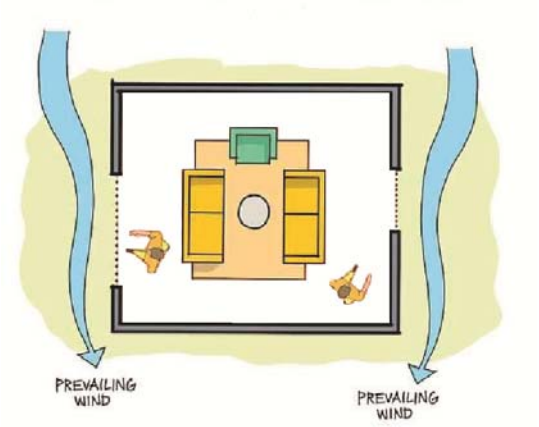
59. In what way an architectural thesis informs the architectural project in a 'Bachelor Thesis Project'?

A. Developing schedule of accommodation
B. In prescribing anticipated user demands
C. Site selection
D. A& C

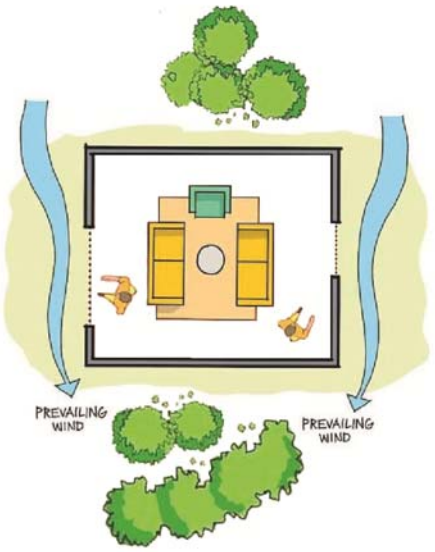
60. One of the terms listed below will not be relevant while gathering date in urban context study

A. Environmental B. Economical C, Political D. History

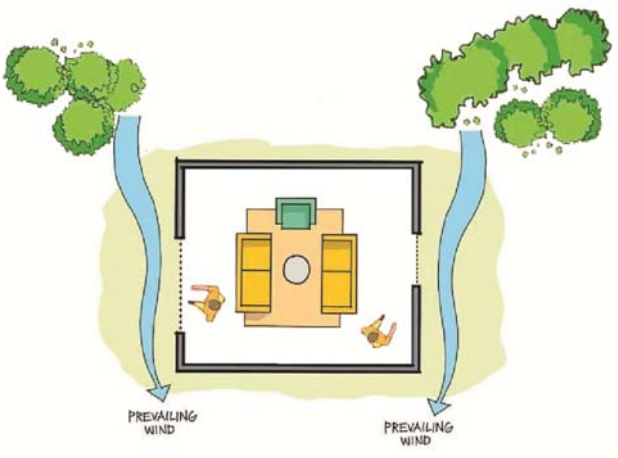
61. As an architect, at which illustrated positions you will place dense shrubs or wall to attain maximum natural ventilation for the given setup.



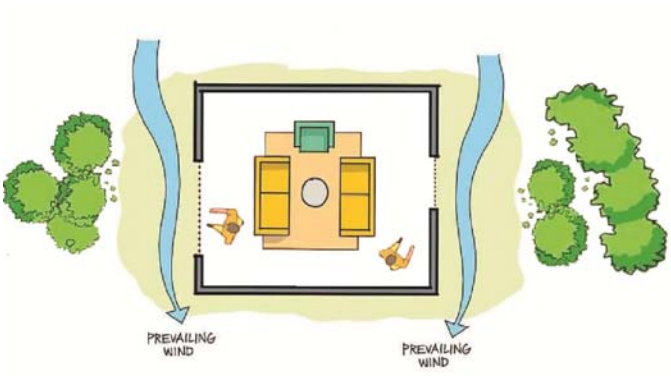
A.



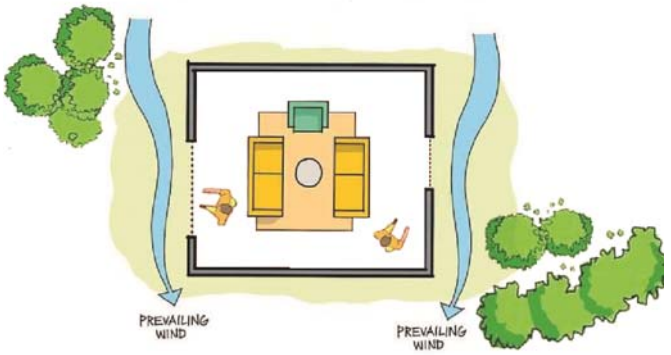
B.



C.



D.



62. Main purpose of building envelop [facade'] is to act as_____

A. functional B. Psychological C. Aesthetic D. All

63. The following factors are the ones that differ from microclimate to macroclimate?

A. Elevation above sea level B. Forms of land

C. Man-made structure D. All of the above

64. Which way of achieving shading and use of shading devices is correct?

A. Proper orientation [using sun chart] B. Trees/plants [types and distance]

C. Design of building volumes or shapes D. All of the above

65. One of the following is not the main purpose of ventilation in architecture

A. Eliminate Odor B. Supply of fresh air C. Insulation D. Create a comfort

66. One of the following is a considerations for passive solar systems

A. Conservation B. Reflectors C. Slope of glazing D. All

THEME 02: Building Construction

67. Which of the following has more fire resisting characteristics?

A. Marble B. Limestone C. Sandstone D. Granite

68. when an external force is applied on a solid body in equilibrium which of the following two things take place

A. Stress and fatigue B. Stiffness and brittleness

C. Stress and wear D. Stress and stain

69. Granite is not suitable for ordinary building purpose because

A. it cannot be polished

B. it is not fire proof

C. it is costly

D. it has less crushing strength

E. all

70. the number of bricks required for one square meter of brick masonry wall is

A.70 B. 45 C. 50 D. 65

71. If you are going to cast concrete in prefabricated industry where the formworks are removed at an early stage, which type of cement will you choose

A. Ordinary Portland cement B. Rapid hardening cement

C. Low heat of hydration cement D. Sulfate resisting cement E.A & B

72. Which one of the following is correct in concrete?

A. Insufficient quantity of water makes the concrete mix harsh

B. Insufficient quantity of water makes the concrete unworkable

C. Excess quantity of water makes the concrete segregated

D. All the above

73. Strength of concrete increases with

A. Increase in water-cement ratio

B. Increase in fineness of cement

C. Decrease in curing time

D. Decrease in size of aggregate

74. Which of the following is not a property of cast iron?

A. Cast iron is hard but brittle
B. Cast iron can be magnetized
C. It does not rust readily
D. Cast iron is not ductile

75. Which one of the following is not the principal factor influencing the strength, ductility and elastic property of steel?

A. Carbon Content
B. Percentage of Impurities
C. Heat treatment and Mechanical working
D. None of the above

76. Which engineered wood product is manufactured form small wood flakes mixed with glue & pressed together using a hot-press machine

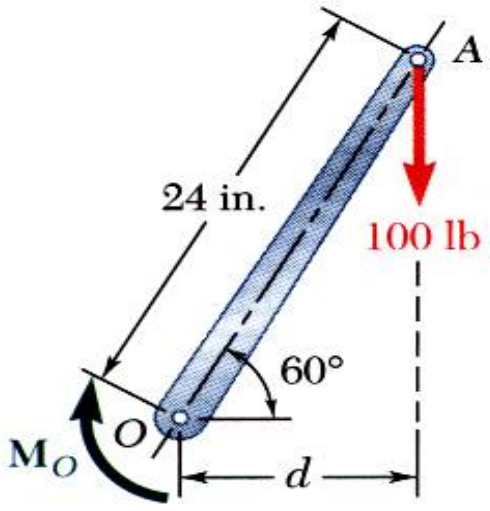
A. Fiber board
B. Wafer board
C. Particle board
D. Ply wood

77. Which one is a correct statement

A. Vector products are commutative
B. Vector products are distributive
C. Vector product are associative
D. None

78. A 100-lb vertical force is applied to the end of a lever which is attached to a shaft at *O*.

Determine moment about *O.*



A. 2,400 1b-in
B. 2,078.5 1b-in
C. 1,200 1b-in
D. none of the above

79. A beam that has fixed support in one end only is called

A. Simple beam B. Continuous beam

C. Cantilever beam D. A and B E. None

80. Which one of the following is not considered as a load on structure

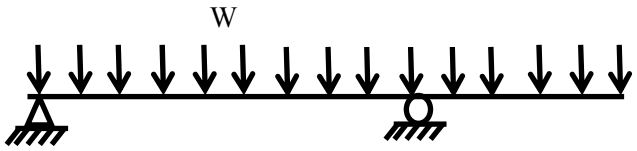
A. Dead load B. Live load C. Earth quake load

D. Wind load E. A and B F. None

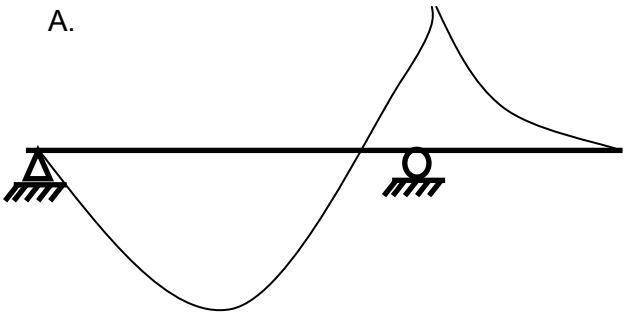
81. Why do you prefer steel structures over concrete structure?

A. Steel can go large span with larger self-weight
B. Steel cost less than concrete
C. Steel has lesser weight than concrete
D. Steel has larger weight to span ratio

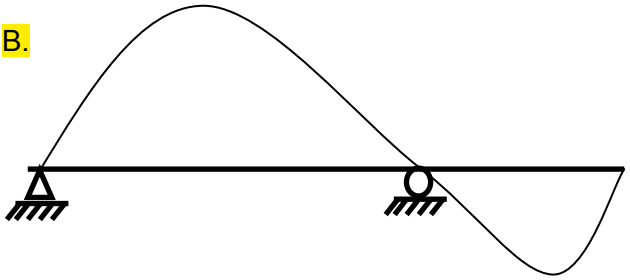
82. Which of the following graphs show the bending moment diagram for the beam loaded as follow? (Assume: positive moment means tension at the bottom)



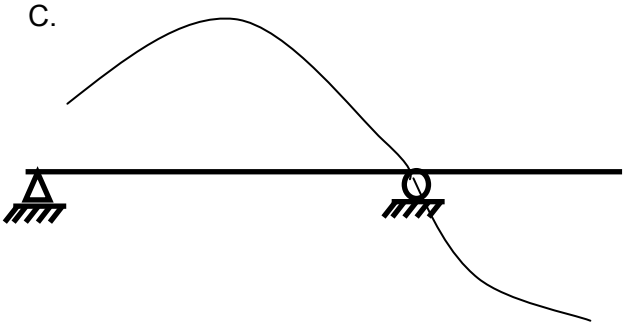
A.



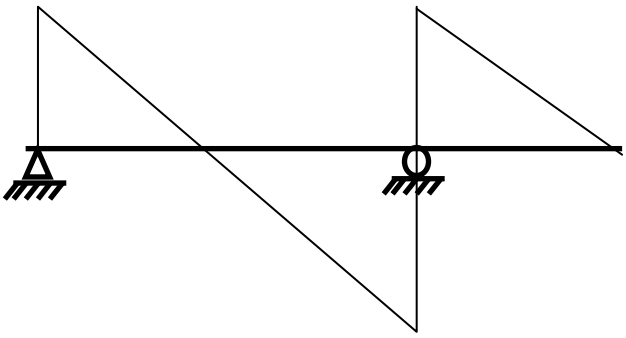
B.



C.



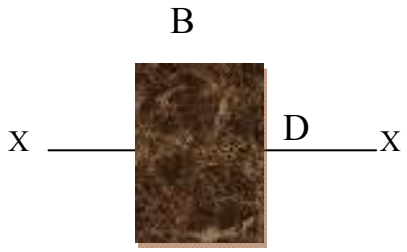
D.



83. Why do we use steel in reinforced concrete?

A. Steel has high tensile stress than concrete
B. Steel cost less than concrete
C. Steel has less compressive strength and high tensile stress
D. Concrete has higher compressive strength than steel and steel has higher tensile strength than concrete

84. What happens to the moment of inertial of the rectangular section [shown on the right] about X-axis if its width is= B and depth= D



If the section is subjected to BENDING about the x-axis, which of the following parameters is most relevant in resisting the applied moment?

A. AIx
B. AE
C) EAIx
D EIx

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THEME 03: Theory and History of Architecture

85. Choose the wrong combination

A. Less is More – Mies van der Rohe
B. Less is Bore – Robert Venturi
C. Ornament is a crime – Le Corbusier
D. Organic Architecture – Frank Lloyd Wright

86. The French linguist/Philosopher "Jacques Derrida" is best known for which architectural style

A. Constructivism
B. Deconstructivism
C. Post modernism
D. Structural functionalism
E. None

87. Which ancient architectural style transmits the symbolic order which results from the interaction of light and matter to the whole community.

A. Classical Architecture
B. Baroque Architecture
C. Egyptian Architecture
D. Gothic Architecture
E. None

88. Which one of the following is not categorized as a representative building type of Aksumite architecture

A. Underground tombs
B. Steles
C. Cave churches
D. Fortified city

89. One of the following is false about the Aksumite Monkey Head wall construction techniques

A. It is a construction system made out of long straight cut blocks
B. The walls made of small stone and clay masonry
C. The walls had to be strengthened at narrow intervals with long squared timbers
D. Often used in church architecture like Debre Damo monastery

90. One of the following is not true about Tigrayan rock churches

A. Most of the churches are located on mountain tops
B. Wall and ceiling paintings are very often used as ornamentation
C. Symbolic rather than structural domes are often used in the interiors
D. Most of the churches are categorized under the Monolithic rock hewn church categories

91. Who introduced **CONCRETE** to the world?

A. Chinese
B. Indians
C. Greeks
D. Romans

92. Why is necessary for Architects to study History of Architecture as a subject?

A. It will help later to develop your own approach to design and innovation
B. To analyze very deeply the dimensions of Architecture
C. To gain insights as to how a certain context influences design
D. A and C
E. B and C
F. All

93. Which of the following are the architectural heritages from the Neo-Babylonian period?

A. Ishtar Gate
B. The hanging Garden
C. The tower of Babel
D. All
E. None

THEME 04: Professional Practice and Ethics

94. Which of the intellectual property right types works best for Architectural design works

A. Patents B. Copyright C. Trade secrete D. Trademarks
E. All F. None

95. Which statement is correct about the advantage and disadvantage of types of Architectural job acquisitions

A. "Merit based" helps new architects to acquire job than bid and completion
B. "Bid" helps to select the best design than "merit and bid"
C. "Merit and bid" take less time than competition
D. Competition are the most cost effective than "bid and merit" techniques
E. All F. None

96.Out of the different payment modalities in Architecture practice, "lump sum" payment type is best suited for?

A. Complex project B. Service which are not well defined
C. Conceptual works D. Conservation works E. All

97. What is the purpose of "Advance guarantee bond"

A. Is a security bond to be paid if the contractor does not perform the contracted work
B. Is a security bond presented against the advance payment contractor receives
C. Is a security bond presented against advance structure
D. Is equivalent to the retention payment E. A and C

98. Specification in building construction and design generally include

A. Standards and codes B. Allowance of substitution
C. Project record D. Project site facility E. All F. None

99. The basic factor we consider while calculating "direct labor cost " is

A. Medical and other privileges given for the workers
B. Government tax added on the labors salary C . Type of crew we have in a team
D. Type of machinery we use E. All F. None

100. In building construction works, "Retention money" is

A. A payment retained for the construction liability period
B. A payment retained until the contractor commence the project
C. A 10% of the construction amount withheld against the performance of the work
D. A payment between Interim payments
E. All of the above F. None

..... Good Luck.....