ARCHITECTURE

PART - 1

Each question carries one mark.

 $(50 \times 1 = 50)$

- The 73rd and 74th Amendment CAA (referred to as part IXA of Constitution) made provisions for
 - (A) Decentralization, establishment and operation of local self-government
 - (B) Voting rights for all citizens
 - (C) Exclusive Economic Zone (EEZ) and the maritime zones of India
 - (D) Right to Education
- 2. The Kaufmann Desert House, Palm Springs, California by Neutra is an example for which of the following spatial configuration?
 - (A) Linear Organization
 - (B) Non-linear Organization
 - (C) Radial Organization
 - (D) Clustered Organization
- Identify the type of Architectural Criticism that is based on an existing set of rules, doctrine, standards or specific criteria
 - (A) Descriptive
 - (B) Normative
 - (C) Interpretative
 - (D) Evocative
- As per the Bye Laws in the National Building Code of India 2016, the minimum turning radius (in meters) required for fire tender movement is
 - (A) 8.0

(B) 8.5

(C) 9.0

(D) 9.5

- The Urban Development Program proposed by Government of India titled 'HRIDAY' stands for
 - (A) Heritage Rejuvenation Implementation Development Aayog Yojana
 - (B) Heritage Review Implementation Development Augmentation Yojana
 - (C) Heritage City Development and Augmentation Yojana
 - (D) Heritage City Improvement and Development Aawas Yojana
- 6. In a flat slab construction method, the load is transferred through the action of which of the following:
 - (A) Beam
 - (B) Column
 - (C) Plate
 - (D) Membrane
- 7. Spatial relationships (connectedness) between adjacent or neighbouring features in Geographic Information Systems refer to
 - (A) Tomography
 - (B) Topography
 - (C) Topiary
 - (D) Topology
- 8. Institute of Indology in Ahmedabad was designed in 1962 by
 - (A) Hasmukh C Patel
 - (B) Anant Raje
 - (C) B V Doshi
 - (D) Le Corbusier



- The seminal book on perception 'Eyes of the Skin: Architecture and Senses' was written in 1996 by
 - (A) Christopher Alexander
 - (B) Amos Rapoport
 - (C) Juhani Pallasmaa
 - (D) Le Corbusier
- The concept of 'eyes on the street' was proposed by the urban activist and the theoretician
 - (A) Jane Jacobs
 - (B) Kevin Lynch
 - (C) Oscar Newman
 - (D) Jon Lang
- 11. Select the term for entrance gateway oriented in cardinal directions around a Buddhist Stupa
 - (A) Torana
 - (B) Vedika
 - (C) Gopura
 - (D) Pylon
- The seminal treatise 'De architectura' (On Architecture) published in ten volumes was written by
 - (A) Andrea Palladio
 - (B) Marcus Vitruvius Pollio
 - (C) Leon Battista Alberti
 - (D) Giorgio Vasari

- 13. The Palace of Versailles and its sprawling gardens are examples for
 - (A) French Baroque
 - (B) Mannerist
 - (C) Medieval
 - (D) Neoclassical
- 14. Which of these is <u>not</u> a feature of rock cut Buddhist Chaitya Halls?
 - (A) Apsidal plan
 - (B) Dormitories
 - (C) Pillared portico or vestibule
 - (D) Sun window.
- 15. The architect associated with the planning and design of New Delhi in the colonial era
 - (A) Raj Rewal
 - (B) Edwin Lutyens
 - (C) Thomas Cowper
 - (D) William Emerson
- The pan India regulatory and adjudicating body for real estate industry
 - (A) MUDA
- (B) BDA
- (C) RERA
- (D) CREDAI
- The architectural quality represented in the TWA Terminal, JFK Airport in New York, 1962 by Eero Saarinen
 - (A) Vitality
 - (B) Accentuation
 - (C) Restraint
 - (D) Repose

- 18. Which of the following does not fall within the purview of the Applied Art?
 - (A) Architecture
 - (B) Industrial design
 - (C) Opera
 - (D) Ceramics
- 19. The 'Kare Sansui' or dry landscape gardens are characteristic of
 - (A) French style
 - (B) Italian style
 - (C) Japanese style
 - (D) Sri Lankan style
- The avant-garde art movement in painting and sculpture, pioneered by Pablo Picasso and Georges Braque
 - (A) Dadaism
 - (B) Fauvism
 - (C) Surrealism
 - (D) Cubism
- 21. The architect associated with the maxim 'form ever follows function'
 - (A) Le Corbusier
 - (B) Bernard Tschumi
 - (C) Louis Henry Sullivan
 - (D) Frank Lloyd Wright
- 22. Which of these is not a funerary monument?
 - (A) Dolmen
 - (B) Mastabas
 - (C) Tholos
 - (D) Menhir

- 23. The term used for 'the process of introducing a slight convex curve in the shaft of a column, to correct the visual illusion of concavity produced by a straight shaft'.
 - (A) Metastasis
 - (B) Entasis
 - (C) Dentils
 - (D) Torus
- 24. Which of the following best exemplifies centralized organization?
 - (A) Villa Capra (The Rotunda), Vicenza, Italy
 - (B) Guggenheim Museum, Bilbao, Spain
 - (C) Unite'd' Habitation, Marseilles, France
 - (D) Fatehpur Sikri, Palace Complex, India
- 25. Local planning authority entrusted with the preparation of Master Plan in Bangalore
 - (A) Bruhat Bengaluru Mahanagara Palike
 - (B) Bangalore Development Authority
 - (C) Department of Town and Country Planning
 - (D) Bangalore Metropolitan Regional Development Authority
- 26. The IIM Ahmedabad campus was designed by
 - (A) Uttam Jain
 - (B) Louis Khan
 - (C) Achyut Kanvinde
 - (D) Le Corbusier

- The Chennakeshava temple at Belur and Hoysaleshwara temple at Halebid in Karnataka are fine examples for
 - (A) Nagara Style
 - (B) Dravida Style
 - (C) Kalinga Style
 - (D) Vesara Style
- 28. The word used to describe monolithic stele or gilded monument with square base, four tall tapering sides leading to a pyramidal shape (needle point) in Egyptian architecture
 - (A) Pylon
 - (B) Obelisk
 - (C) Sphinx
 - (D) Column
- 29. Notable site for parietal (prehistoric) art in India
 - (A) Bhimbetka, Madhya Pradesh
 - (B) Ariyannur, Tamil Nadu
 - (C) Lothal, Gujarat
 - (D) Ajanta, Maharashtra
- 30. The term 'carrying capacity' refers to
 - (A) the number of people, organisms, or crops that a region can support without environmental degradation
 - (B) the number of people living in a unit area of the earth's surface
 - (C) ratio of the number of farmers to amount of arable land
 - (D) percentage change in the total number of people living in urban areas from year to year

- 31. Select the set of elements that constitute 'imageability' coined by K.A. Lynch
 - (A) Pathways-Edge-Node-District-Landmark
 - (B) Legibility-structure and identity-time perception
 - (C) Vitality-Sense-Fit-Access-Control
 - (D) Conceived-Perceived-Lived space
- 32. Which of the following is a notable characteristic of Harappan civilization?
 - (A) walled palace complex surrounded by dwellings
 - (B) organic street layout
 - (C) water management systems
 - (D) funerary monuments
- 33. An ancient technique for transferring load using 'interlocking wooden brackets without glues or fasteners' between column and cross beam in ancient Chinese architecture refers to
 - (A) Dougong
 - (B) Kumiki
 - (C) Sunmao
 - (D) Kath-Kuni
- 34. The full form of planning and design strategy, TOD
 - (A) Tourism Oriented Development
 - (B) Transit Oriented Development
 - (C) Transfer of Ownership Document
 - (D) Terms of Delivery

- 35. Which of the following terms is <u>not</u> a part of principles for Gestalt or visual perception?
 - (A) Proximity
 - (B) Harmony
 - (C) Closure
 - (D) Continuity
- Pierre Charles L' Enfant's proposal for the design of Washington DC in America was adopted as a part of
 - (A) City Beautiful Movement
 - (B) Gothic Revival
 - (C) Neoclassical
 - (D) The Chicago School
- 37. The colonial architecture style common to the settlements in Serampore, W Bengal and Tranquebar, Tamil Nadu in India
 - (A) French
 - (B) Dutch
 - (C) Danish
 - (D) British
- 38. The term that best describes 'the study of urban forms and of the agents and processes responsible for their formation and transformation over time'
 - (A) Settlement geography
 - (B) Urban Design
 - (C) Urban morphology
 - (D) Physiography

- 39. The term 'hydrosere' is used to explain which of the following processes?
 - (A) plant succession in fresh water aquatic environment converting it into forest or land-based community
 - (B) a body of water becomes enriched in dissolved nutrients that stimulate the growth of aquatic plant life usually resulting in the depletion of dissolved oxygen
 - (C) sequence of communities associated in plant succession in saline environment with the developmental stages leading to salt marshes
 - (D) gradual succession of plant communities in dry landscape begins with bare rocks, deserts
- 40. The scheme launched by Central Government in 2015 to address the demand-supply imbalance, offers a pucca home to every household of the country and rehabilitate existing slums with private sector participation
 - (A) Pradhan Mantri Awas Yojana
 - (B) Rajiv Awas Yogana
 - (C) Mhada Lottery Scheme
 - (D) DDA Housing Scheme
- 41. Which of the following is not part of the directive for 'Green Building' rating formulated by GRIHA, India 2019?
 - (A) Site Planning
 - (B) Building Envelope Design
 - (C) Eliminate the use of renewable energy sources
 - (D) Water and Waste Management



- 42. Bioswales commonly used in Sustainable Drainage Systems (SuDS) design refers to
 - (A) A long channelled depression or trench with occasional check dams that receive rain or storm water runoff
 - (B) Creation of miniature wetlands (habitats) that filter out silt, debris and (biodegrade) remove the toxins contained in the runoff
 - (C) Method of reducing and removing standing ponds that breed mosquitoes and recharge ground water
 - (D) All of the above
- 43. The catenary arch and ruled surfaces are notably seen in the works of
 - (A) Louis Kahn
 - (B) Antonio Gaudi
 - (C) Ricardo Bofill
 - (D) F L Wright
- 44. A projecting structure of masonry or wood built at intervals for supporting (stabilizing) a wall or building
 - (A) Buttress
- (B) Arch
- (C) Vault
- (D) Pilaster
- 45. The city that exemplifies the model of 'growth by extension' axially
 - (A) London
 - (B) Rome
 - (C) Paris
 - (D) New York

- 46. The structure found in ancient civilization consisting of 'massive stepped platform built on a rectangular, oval or square base, in receding single or multiple tiers with a flat top holding a shrine or temple'
 - (A) Pyramid
 - (B) Ziggurat
 - (C) Lamassu
 - (D) Bastion
- 47. Founder of the Garden City Movement as a response to perils of Industrialization in England
 - (A) Clarence Perry
 - (B) Frederick Law Olmstead
 - (C) Clarence Stein
 - (D) Ebenezer Howard
- 48. Select the odd one out of the list
 - (A) BMW Central Building, Leipzig, Germany
 - (B) Riverside Museum, Glasgow, Scotland
 - (C) UFA Cinema Center, Dresden, Germany
 - (D) Vitra Fire Station, Weil-am-Rhein, Germany
- The population or inhabitants required to turn a Metropolis into a Megacity
 - (A) ten million and above
 - (B) five million or above
 - (C) twenty-five million and above
 - (D) one million and above
- The origin of the 'Charbagh' or paradise garden concept adopted and modified during Mughal Period in India is from
 - (A) Iran

- (B) Spain
- (C) Persia
- (D) Iraq



PART – 2 Each question carries two marks.

 $(25 \times 2 = 50)$

- Select the axial sequence of spaces encountered in Lingaraja Temple, Bubhaneshwar in Orissa
 - (A) Bhog mandir, Nat mandir, Jagmohan, Rekha deul or Sri Mandir
 - (B) Surya Kund, Sabha mandapa, Gudha mandapa, Prasada
 - (C) Gopura, Nandi mandapa, Maha mandapa, Ardha mandapa, Garbhagriha
 - (D) Rekha deul, pidha deul, Khakhara deul, Jagmohan
- 52. The purpose of refuge area in buildings is to
 - (A) demarcate a common area for sports and recreation
 - (B) increase light and ventilation to each floor
 - (C) a common area for services to be located
 - (D) demarcate and provide a space for shelter in case of an emergency
- 53. Match the terms and the meanings:

P	Setback	1	land division method to regulate type of development
Q	Zoning	2	easement, which allows the entitled person pedestrian or vehicular access across the land of another person
R	FAR	3	ratio of the total floor area of the building to the size of the piece of land upon which it is built
S	Right of way	4	minimum open space required around a building or structure from the boundary line of the plot

	P	Q	R	S
A)	1	2	4	3
B)	4	1	3	2
C)	3	4	1	2
D)	2	3	1	4

- 54. Select the feasible sequence for Design process:
 - (A) discover, define, develop, deliver
 - (B) develop, deliver, discover, define
 - (C) deliver, discover, define, develop
 - (D) define, deliver, develop, discover
- 55. Select the 'triad' of Orders developed in Greek architecture:
 - (A) Doric, Composite and Tuscan
 - (B) Corinthian, Tuscan and Doric
 - (C) Corinthian, Ionic and Tuscan
 - (D) Doric, Ionic and Corinthian
- 56. Which of the following does not represent the five-point manifesto for 'house is a machine for living in' by Le Corbusier?
 - (A) Pilotis and open plan
 - (B) Free facade and ribbon window
 - (C) fluid geometry and ornament
 - (D) Roof garden and open plan



- Two notable characteristics of 'Datum' in an architectural composition
 - (A) maintain informal balance by using different elements that have equal visual weight along an axis or around a point to create visual interest
 - (B) provide a continuous and regular conceptual structure that organizes a random pattern of elements and accentuates similarities or differences
 - (C) articulate the importance or significance of a form or space and uses size, shape, or placement to achieve it
 - (D) achieve formal balance by repeating or mirroring the design on the opposite side of the vertical axis or around a point to create order
- Match the following Movements or periods with the architectural work that represents it best

Р	Modernism	1	The Barbican, London, UK
Q	Deconstructivism	2	Einstein Tower, Berlin, Germany
R	Expressionism	3	Walt Disney Concert Hall, Los Angeles, California
s	Brutalism	4	Farnsworth house, Illinois, USA

	Р	Q	R	S
A)	4	3	2	1
B)	2	3	4	1
C)	3	4	1	2
D)	1	2	3	4

- Two elements found in the traditional houses of hot and dry climatic zone in India
 - (A) Courtyard and Jharokhas
 - (B) Pitched roof and Baffle walls
 - (C) Trombe walls and Gable roof
 - (D) Sloping roof and balconies
- 60. The architect credited with the vision to redesign the summit of the Capitoline hill in Rome into Piazza del Campidoglio, during the Renaissance Period.
 - (A) Leonardo da Vinci
 - (B) Michelangelo Buonarroti
 - (C) Andrea Palladio
 - (D) Filippo Brunelleschi
- The unique urban aspects that can be analysed by the Map of Rome created by Giambattista Nolli, in 1748
 - (A) Street character along with built and unbuilt spaces
 - (B) Building details along with streets and parks
 - (C) Land use along with block size and street pattern
 - (D) Public spaces along with built and open spaces

62. Match the following authors and the influential books on architecture:

P	Design with Nature	1	Toward an Architecture
Q	Aldo Rossi	2	A Pattern Language
R	Christopher Alexander	3	Architecture of the City
s	Le Corbusier	4	Lan Mc Harg

	P	Q	R	s
A)	4	3	2	1
B)	2	3	4	1
C)	3	4	1	2
D)	1	2	3	4

- 63. Two youngsters start from their residence and use the following modes in sequence to reach college. Ride a two-wheeler to the Metro Station. Park and take the Metro to the closest station, walk from there to the bus stand and finally a bus to the destination. In what order did they use the various modes of transit?
 - (A) Private Transit, Mass Rapid Transit, Non-Motorized Transit, Public Transit
 - (B) Non-Motorized Transit, Public Transit, Private Transit, Mass Rapid Transit
 - (C) Public Transit, Paratransit, Mass Rapid Transit and Private Transit
 - (D) Non-Motorized Transit, Public Transit, Paratransit, Rapid Mass Transit

- 64. Which of the following is <u>not</u> a form of ornamentation found in Islamic architecture?
 - (A) Calligraphy and Vegetal
 - (B) Vegetal and Mineral
 - (C) Grotesque and Anthropomorphic
 - (D) Geometry and Figural
- 65. Which of the following is <u>not</u> an objective of Regional Planning?
 - (A) Judicial utilization of natural resources and community education
 - (B) Reinforce rural-urban divide and increase regional disparities
 - (C) Promote socio-economic and cultural well-being
 - (D) Sustainable development and emphasize on regional mobility
- 66. Match the architects with the cities or towns in India

P	New Bagalkot	1	B V Doshi
Q	Bubhaneshwar	2	Le Corbusier
R	Chandigarh	3	Otto Konigsberger
s	Vidyadharnagar	4	Charles Correa

	Р	Q	R	s
A)	1	2	3	4
B)	2	3	4	1
C)	3	4	1	2
D)	4	3	2	1



67. Match the libraries with the corresponding architects:

s	Beinecke Rare Book Library	4	Rem Koolhass + LMN
R	Philip Exeter, Library	3	Gordon Bunshaft
Q	Sendai Mediatheque	2	Louis Khan
P	Seattle Public Library	1	Toyo Ito

	Р	Q	R	S
A)	4	1	2	3
B)	2	3	4	1
C)	3	4	1	2
D)	1	2	3	4

68. Match the unique structural system with corresponding buildings:

P	Steel truss and Gerberette	1	Kimbell Art Museum, Texas
Q	Cable stayed (tensile) Dome	2	L'Oceanografic, Valencia, Spain
R	Reinforced concrete thin shell structure	3	Millennium Dome, London
s	Post-tensioned cyclcoid vaults	4	Centre Pompidou, Paris

	P	Q	R	S
A)	1	2	3	4
B)	4	3	2	1
C)	3	4	1	2
D)	2	1	4	3

69. Match the systems of Proportion with built examples that represent them:

P	Golden Section	1	Villa Garches, France
Q	Modular	2	Kastura Imperial Villa, Japan
R	Ken	3	Parthenon, Greece
S	Regulating Lines	4	Le Petit Cabanon France

	Р	Q	R	S
A)	1	2	3	4
B)	2	1	4	3
C)	3	4	2	1
D)	4	3	2	1

The building materials predominantly used in temple construction found in the town of Bishnupur, West Bengal

- (A) Terracotta and Brick
- (B) Granite and Wood
- (C) Brick and Travertine
- (D) Wood and Terracotta

71. Which of the following is <u>not</u> a notable characteristic of Postmodern architecture?

- (A) Cultural expression, complexity and contradictions
- (B) Purity of form, abstract expression and function follows form
- (C) Reviving history and ornamentation
- (D) Vibrant colour, texture, theme

Space For Rough Work

- Select the two natural factors to be considered for site planning
 - (A) Physical geography and wildlife
 - (B) Communities and cultural practices
 - (C) Conceptual Analysis and Design
 - (D) Access and circulation
- SEZ, proposed by Centre in a Parliamentary
 Act, 2005 attempts to
 - (A) Facilitate rapid economic growth by leveraging tax incentives for foreign investments and spark technological advancement
 - (B) Identify areas for heritage conservation
 - (C) Protect ecologically sensitive zones around waterbodies
 - (D) Promote mobility around metro stations
- 74. The term for the design process that 'follows the sustainable strategy that mimics the regenerative cycle of nature in which waste (technical and biological) is reused, recycled or consumed thus waste created, becomes nutrients for another process'.
 - (A) Cradle to Grave
 - (B) Cradle to Cradle
 - (C) Circular Economy
 - (D) Biomimicry

75. Match the designers with the unique landscape projects:

P	Ira Keller Forecourt Fountain, Oregon, USA	1	Lawrence Halprin
Q	Eden Project, Cornwall UK	2	Nicholas Grimshaw
R	Highline Project, Manhattan, USA	3	Corner Field Operations, DS + R
S	Timba Quarry, Gujarat, India	4	Prabhakar Bhagwat

	Р	Q	R	S
A)	1	2	3	4
B)	2	3	4	1
C)	3	4	1	2
D)	4	3	2	1