

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (July-2023) for Recruitment to the post of Assistant Architect (Group-A) in the Departments of Local Govt. & PWD, Government of Punjab

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Total Questions: 120
Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth

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DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

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Question Booklet Set
A
Booklet Series

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes out of 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black **ball point pen** to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has 21 pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages printed correctly and there are no blank pages. In case there is any such error in the question paper booklet then the candidate should **IMMEDIATELY** bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet if issued for some reason should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the **MOST APPROPRIATE** answer on the OMR response sheet.
9. There is negative marking (1 mark for each question) for questions wrongly answered by the candidate.
10. Use of Electronic/Manual Calculator is prohibited.
11. The candidate **MUST READ INSTRUCTIONS BEHIND THE OMR SHEET** before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. World's first bronze sculpture was found in:
 - a) Harappa
 - b) Mohenjodaro
 - c) Lothal
 - d) Rakhigarhi
2. Gopuram is an element of:
 - a) Dravidian Architecture
 - b) Indo-Aryan Architecture
 - c) Jain Temple Architecture
 - d) Rock Cut Temple Architecture
3. Shaking minarets are located in:
 - a) Ahmedabad
 - b) Agra
 - c) Jaipur
 - d) Hyderabad
4. An inclined section through a Cone will be seen as:
 - a) Hexagon
 - b) Hyperbola
 - c) Spiral
 - d) Ellipse
5. How many faces does a Dodecahedron has?
 - a) 12
 - b) 20
 - c) 30
 - d) 8
6. What is the minimum slope for climbing a ramp using wheelchair ?
 - a) 1:8
 - b) 1:10
 - c) 1:12
 - d) 1:14
7. What is the minimum height of bathroom as per NBC?
 - a) 2.2 m
 - b) 2.8 m
 - c) 2.75 m
 - d) 2.4 m
8. What does the Horizon line in a perspective represent?
 - a) Height of the object
 - b) Eye level of observer
 - c) Distance from Picture plane
 - d) Cone of Vision

9. What are the stones or bricks at the corner of a building called?
- a) Jamb
 - b) Course
 - c) Quoin
 - d) Rebate
10. What is the percentage of Carbon in structural steel?
- a) 5 to 8 %
 - b) > 18 %
 - c) 1 to 2 %
 - d) < 0.5 %
11. Which term is used for Heating and slow Cooling of metals?
- a) Tempering
 - b) Annealing
 - c) Hardening
 - d) Melting
12. Which defect of timber occurs between or through annual growth rings?
- a) Knot
 - b) Shake
 - c) Decay
 - d) Split
13. Which truss is most suitable for glare free lighting in workshops?
- a) North light truss
 - b) King post truss
 - c) Fink truss
 - d) Warren Truss
14. Lancet Arch is also called _____ arch?
- a) Draped arch
 - b) Ogee arch
 - c) Acute arch
 - d) Multifoil arch
15. Silica, Charcoal and gypsum is used in paints as a _____
- a) Plasticizer
 - b) Inert filler
 - c) Antiskinning agent
 - d) Thinner
16. Which is a mode of failure in a structural member?
- a) Buckling
 - b) Compression
 - c) Torsion
 - d) Equilibrium

17. Which of the following is a criterion for design of Storm water drainage?
- a) Catchment Area
 - b) Population of a City/ town
 - c) Number of cloudy days
 - d) Solar irradiance
18. The acceptable noise level in Hospital corresponds to which of the following?
- a) 10-15 dB
 - b) 35-40 dB
 - c) 60-65 dB
 - d) 90-100 dB
19. Luminous intensity is expressed in which units?
- a) Watt
 - b) Lumens
 - c) Wall per metre
 - d) Candela
20. A residence has a terrace area of 50 m^2 and runoff coefficient of 0.5. For an average rainfall of 500 mm, the rainwater harvesting potential from terrace shall be ____ m^3 ?
- a) 1.25
 - b) 12.5
 - c) 125
 - d) 1250
21. Which of the following is a passive design feature?
- a) Solar Chimney
 - b) Air Cooler
 - c) Exhaust Fan
 - d) Air Conditioner
22. Which Green rating system is followed in United Kingdom?
- a) CASBEE
 - b) GRIHA
 - c) BREEAM
 - d) Green Mark
23. Calculate the maximum number of 100 sq. m. apartments that can be constructed on a 1-hectare plot, having ground coverage of 40 percent and an FAR of 1.5
- a) 100
 - b) 60
 - c) 200
 - d) 150

24. A Smart City DOES NOT include which among the following?

- a) Information and Communication Technology
- b) Management Information System
- c) Surveillance System
- d) Urban Heat Index

25. What has replaced the Planning Commission in 2017?

- a) Ayushman Bharat Yojna
- b) Valmiki Ambedkar Awas Yojna
- c) Two Million Housing Programme
- d) NITI Aayog

26. Meditation space, Hill, Pond, Zen, Curved elements and use of Symbolic features is a characteristic feature of _____ gardens.

- a) Mughal
- b) English
- c) Italian
- d) Japanese

27. Which of the following is NOT an Adhesive?

- a) Epoxy Resin
- b) Vinyl
- c) Urea Formaldehyde
- d) Phenyl Formaldehyde

28. An earthquake with a Richter Scale of 6.0 is classified as _____

- a) Strong
- b) Mild
- c) Little
- d) Insignificant

29. The full form of AMRUT is _____

- a) Augmented Monuments for Recreation and Urban Transportation
- b) Atal Mission for Recreation and Urban Transportation
- c) Atal Mission for Rejuvenation and Urban Transformation
- d) Associated Monuments for Recreation and Urban Transformation

30. Grade M-25 of concrete mix refers to:

- a) 1:2:4
- b) 1:3:6
- c) 1:1:3
- d) 1:1:2

31. If the successful tender fails to submit the additional performance security within _____ no. of working days from the date of issue of letter of acceptance, his earnest money will be forfeited.
- a) 7
 - b) 15
 - c) 21
 - d) 28
32. Plans used to identify site in relation to town plan or other wider context are called:
- a) General location Plans
 - b) Site plans
 - c) Layout plans
 - d) Reflected Plan
33. India habitat center, New Delhi, was designed by:
- a) Charles Correa
 - b) Raj Rewal
 - c) Joseph Allen Stein
 - d) A. P. Kanvinde
34. In CMYK colour model, 'C' represents the colour:
- a) White
 - b) Black
 - c) Blue
 - d) Green
35. New parliament house , New Delhi, is designed by:
- a) Hafeez contractor
 - b) Raj Rewal
 - c) Herbert Baker
 - d) Bimal Patel
36. Hoop and circumferential forces are associated with:
- a) Dome
 - b) Truss
 - c) Folded Plate
 - d) Cylinder
37. Recommended height for the wash basin as per barrier free norm is:
- a) 500 – 600 mm
 - b) 600 - 850 mm
 - c) 700 - 800 mm
 - d) 800 - 900 mm

38. The solar protection system consisting of fixed slates or grids outside a building façade in front of openings is known as:
- a) Solarium
 - b) Trombe Wall
 - c) Malqaf
 - d) Brise-soleil
39. Which of the following is the correct sequence from top to bottom for the elements used in the Entablature in ancient Greek Architecture?
- a) Cyma recta, Corona, Dentil, Frieze, Architrave
 - b) Corona, Cyma recta, Architrave, Frieze, Dentil
 - c) Architrave, Frieze, Corona, Dentil, Cyma recta
 - d) Dentil, Cyma recta, Corona, Frieze, Architrave
40. Which of the following is a temple having an apsidal plan?
- a) Lad Khan Temple, Aihole
 - b) Virupaksha Temple, Pattadakal
 - c) Brihadeshwara Temple, Tanjore
 - d) Papanatha Temple, Pattadakal
41. For a PERT activity, the optimistic time, the most likely time and pessimistic time are 1, 2 and 9 days respectively. The expected time for the activity(in days) is:
- a) 9
 - b) 6
 - c) 4
 - d) 3
42. Line up to which the plinth of a building adjoining a street may be law-fully extended is called:
- a) Building line
 - b) Building boundary
 - c) Building extend
 - d) Building plan
43. The raft slab is projected beyond the outer walls of the structure by:
- a) 5 to 10 cm
 - b) 15 to 20 cm
 - c) 25 to 30 cm
 - d) 30 to 45 cm
44. Which type of truss is characterized by multiple diagonal members forming a series of V-shapes?
- a) Warren truss
 - b) Pratt truss
 - c) K truss
 - d) Vierendeel truss

45. A property fetches a net income of Rs.1000/- deducting all outgoings. Workout the capitalized value of the property if the rate of interest is 5% per annum.
- a) Rs.5000
 - b) Rs.20000
 - c) Rs.10000
 - d) Rs.24000
46. According to National Building Code of India, Industrial buildings are categorized under which group of occupancy?
- a) Group G
 - b) Group E
 - c) Group F
 - d) Group H
47. The illumination level of a room is 350 lux and the efficacy of the lamps is 50. What will be the Light Power Density (LPD) of the room in Watt/m²?
- a) 5 Watt/ m²
 - b) 7 Watt/ m²
 - c) 10 Watt/ m²
 - d) 8 Watt/ m²
48. Find the reverberation time of a hall having dimensions 50m x 25m x 35m and having the absorption coefficient of 0.15.
- a) 1.8 sec
 - b) 2.8 sec
 - c) 3.8 sec
 - d) None of the above
49. When the load are reversing, the beam is designed as:
- a) Singly reinforced
 - b) Doubly reinforced
 - c) Over-reinforced
 - d) Cantilever beam
50. In planning for malls, the required public and toilet facilities shall be located not more than one storey above or below the space to be served with such facilities, and the path of travel to such facilities shall not exceed:
- a) 89 m
 - b) 90 m
 - c) 91 m
 - d) 92 m

51. A building with a green roof is an example of:
- a) Climate-responsive design in a hot and humid climate
 - b) Climate-responsive design in a cold climate
 - c) Climate-responsive design in a tropical climate
 - d) Climate-responsive design in an urban environment
52. As per National Building Code of India 2016, area for each equivalent car space inclusive of circulation area for open parking, ground floor covered parking and basement respectively is
- a) 22 sqm, 25 sqm, 30 sqm
 - b) 23 sqm, 28 sqm, 32 sqm
 - c) 20 sqm, 25 sqm, 30 sqm
 - d) 24 sqm, 28 sqm, 32 sqm
53. In Autodesk AutoCAD, when in absolute Cartesian coordinates have points A(10.8) and B(6.5), then to make a line from A to B with relative polar coordinates will write:
- a) @-5<36.88
 - b) @4<30
 - c) @5<216.88
 - d) @3<60
54. What type of mode of failure is seen if footing is resting on very dense sand, loaded by transient dynamic loads?
- a) Local Shear failure
 - b) Transient Shear failure
 - c) Punching Shear failure
 - d) Flexural Failure
55. For signage, what should be the minimum height of letters in mm for a viewing distance of 12 m?
- a) 30
 - b) 32
 - c) 40
 - d) 45
56. The modified form of old English cross bond which consists of alternative courses of headers and stretchers is known as:
- a) Raking bond
 - b) Dutch bond
 - c) Header bond
 - d) Facing bond

57. Match List I (Pozzolana) with List II (Properties) and select the correct option from the codes given below:

List I		List II	
A	Iron oxide	1.	Prevent the flash setting of cement.
B	NaCl	2.	Provides strength to the cement.
C	Silica	3.	Accelerates the rate of setting of Plaster of Paris
D	Gypsum	4.	Gives colour to the cement.

Codes:

	A	B	C	D
a)	2	4	1	3
b)	4	3	2	1
c)	3	1	4	2
d)	1	2	3	4

58. Match the plants in List I with their prime uses in List II :

List I

- A. Bignonia magnifica
- B. Ixora chinensis
- C. Cassia fistula
- D. Wedelia trilobata

List II

- 1. Grass cover
- 2. Wall climbers
- 3. Topiary
- 4. Arboriculture

Codes:

	A	B	C	D
a)	4	1	2	3
b)	4	3	1	2
c)	2	3	4	1
d)	3	2	4	1

59. A casement window hung horizontally is called _____ window.

- a) Hopper
- b) Awning
- c) Pivot
- d) Transom

60. What is Postmodernism in architecture primarily defined as?

- a) A historical revival movement
- b) A reaction against modernism
- c) A formalist belief in function over form
- d) A style based around the use of modern materials

61. Interface of two ecological zones is termed as:

- a) Promontories
- b) Ecotone
- c) Biome
- d) Ecosystem

62. Match the Landscape designers listed in List I with their appropriate contribution from List II and choose the correct option from the codes given below:

List I

- A. Lancelot Capability Brown
- B. Andre le Notre
- C. Joseph Paxton
- D. Frederick Law Olmstead

List II

- 1. Kew gardens
- 2. Versailles garden
- 3. Central park
- 4. Crystal Palace

Codes:

	A	B	C	D
a)	3	1	4	2
b)	1	3	4	2
c)	1	2	3	4
d)	1	2	4	3

63. Hierarchy of courts, hierarchy of gates and zoomorphic forms are the features of which type of garden?

- a) Japanese
- b) Mughal garden
- c) Chinese garden
- d) English garden

64. In horizontal DPC, the thickness of the cement concrete is _____

- a) 8 CM
- b) 4 CM
- c) 3 CM
- d) 6 CM

65. A roof with slope in two directions with a break in slope on each side is called as:

- a) Gambrel roof
- b) Gabel roof
- c) Skillion and Lean to
- d) French roof

66. The direct and indirect cost estimated by a contractor for bidding a project is Rs.160000 and Rs. 20000 respectively. If the markup applied is 10% of the bid price, the quoted price of the contractor is:

- a) Rs.216000
- b) Rs.196000
- c) Rs. 200000
- d) Rs. 190000

67. The PVCN range of paint for prime coat on metals is:
- a) 50-70
 - b) 25-40
 - c) 50-60
 - d) 55-60
68. Which of the following constructions is effective against both air-borne and structure-borne sounds?
- a) Timber floor floating construction
 - b) Use of resilient surface material
 - c) Timber floor with suspended ceiling and air space
 - d) Concrete floor floating construction
69. The echo will be detectable to a human ear in which of the following room dimension? Assume that the surfaces are not good absorbers.
- a) 4m x 5m
 - b) 18m x 4m
 - c) 10m x 3m
 - d) 12m x 12m
70. Maintenance Ratio in lighting calculation is defined as:
- a) The ratio of illumination under normal working conditions to the illumination when everything is clean.
 - b) The ratio of illumination under normal working conditions to the illumination when everything is dirty.
 - c) The cost of human labor to clean 1SqM of the surface
 - d) None of the above
71. Which of the following features of Indian temples resembles pylons of the Egyptian temples?
- a) Vimana
 - b) Shikara
 - c) Gopura
 - d) Antarala
72. Which of the following architectural structures is not a contribution of Sir Edwin Lutyen?
- a) Rashtrapati Bhavan
 - b) Parliament House
 - c) Hyderabad House
 - d) Connaught Place
73. What is another name of 'Gate of Magnificence, the highest gateway of India at Fatehpur Sikri built by Akbar?
- a) Teen Darwaza
 - b) Alai Darwaza
 - c) Buland Darwaza
 - d) India Gate

74. Service tax rate for architectural consultancy fees in India is:
- a) 5%
 - b) 12%
 - c) 18%
 - d) 24%
75. Which of the following gives the highest sound absorption in a room?
- a) Rigid wall
 - b) Rough ceiling
 - c) Soft curtain
 - d) Open window
76. The rafter that makes the closed triangular end of a pitched roof in timber is called:
- a) Jack rafter
 - b) Valley rafter
 - c) Common rafter
 - d) Hip rafter
77. In case of a double roof of timber, which of the following statement is not correct?
- a) The rafter is supported on purlins
 - b) The purlins is supported on end walls
 - c) The batten is supported on rafters
 - d) The purlin is supported on trusses
78. Trapezoidal footing is a:
- a) Column footing
 - b) Combined footing
 - c) Stepped footing
 - d) Deep foundation
79. In pressure supply mains, water hammer pressure is reduced by providing:
- a) Sluice valves
 - b) Air valves
 - c) Pressure relief valves
 - d) Suction Valve
80. Mostly used coagulant is:
- a) Chlorine
 - b) Alum
 - c) Lime
 - d) Bleaching powder

81. Associate the plans in List I with the options in List II and choose the correct option from the codes given below:

List I	List II
A. City Development plan	1. PMGSY
B. Slum Free City Plan	2. JNNURM
C. Transport Network Plan	3. RAY
D. Disaster Management Plan	4. NDMA

Codes:

	A	B	C	D
a)	2	3	1	4
b)	3	2	1	4
c)	2	1	3	4
d)	1	3	2	4

82. Which of the following Mud wall construction is preferred in Earthquake prone zones?

- a) Adobe
- b) Wattle and Daub
- c) Stabilized mud block
- d) Rammed earth

83. Minimum height of habitable rooms is

- a) 2.5 m
- b) 2.75 m
- c) 1.5 m
- d) 2 m

84. What is the type of slab in which some part of cement is replaced with cheap light weight material?

- a) Collar slab
- b) Waffle slab
- c) Flat slabs
- d) Filler slab

85. Which of the following is a non-natural defect in wood?

- a) Chemical Stain
- b) Twisted fibre
- c) Upsets
- d) Conversion

86. Clerestory windows are high and vertically placed windows. They can be used to increase _____ when oriented towards the equator.

- a) Indirect gain
- b) Isolated gain
- c) Direct Solar gain
- d) Indirect heat gain

87. Increased height of the room gives better ventilation due to _____
- a) Venturi effect
 - b) Bernoulli's effect
 - c) Stack Effect
 - d) Light effect
88. Beaufort Scale is:
- a) Scale representing wind speed
 - b) Scale for measuring humidity
 - c) Scale for measuring earthquake
 - d) Scale measuring landslide
89. A Stair is to be provided for a residence with floor height of 3m. If the space available for the stair is 4m x 2.5m, what kind of stair you propose?
- a) Open-well
 - b) Bifurcated
 - c) Dog-legged
 - d) All the above
90. The joists in a Single Timber Floor is provided _____, while it is _____ in a Double Floor.
- a) across the span, along the span
 - b) along the span, across the span
 - c) across the span, across the span
 - d) along the span, along the span
91. Which of the Mughal Monuments marked a new beginning in the style of architecture of North India with the dome made of marble as its most remarkable feature?
- a) Badshahi Mosque
 - b) Bibi ka Maqbara
 - c) Humayun's Tomb
 - d) Taj Mahal
92. Takht Sri Damdama Sahib, one of the five takhts of Sikhs is situated in:
- a) Patiala
 - b) Talwandi Sabo
 - c) Amritsar
 - d) Jalandhar
93. Who was the first Punjabi writer to receive Jnanpith Award ?
- a) Amrita Pritam
 - b) Gurdial Singh
 - c) Surjit Paatan
 - d) Khushwant Singh

94. For how many years, a person of Indian origin must have been an ordinary resident of India before making application towards getting citizenship by registration?
- a) 10
 - b) 8
 - c) 5
 - d) 7
95. Concrete and fiber glass are_____
- a) Composite materials
 - b) Ceramic materials
 - c) Polymers
 - d) Semiconductors
96. The pH value of acidic medium is:
- a) More than 7
 - b) Equal to 7
 - c) More than 10
 - d) Less than 7
97. Radiation therapy (Radiotherapy) is used for treatment of various types of cancers, and it is based on application of radiations. Which of the following radiations are mostly used for radiotherapy for cancer?
- a) Gamma radiations
 - b) UV- radiations
 - c) Microwave radiations
 - d) Infrared radiations
98. In which of the following states the newly built state secretariat building was inaugurated in the last week of April, 2023?
- a) Odisha
 - b) Andhra Pradesh
 - c) Chhattisgarh
 - d) Telangana
99. By which of the following Acts was the Governor General of Bengal designated as the Governor General of India?
- a) The Regulation Act of 1773
 - b) The Pitt's India Act of 1784
 - c) The Charter Act of 1793
 - d) The Charter Act of 1833
100. Which of the following is a world famous beach for the 'Arribada' (arrival) of Olive Ridley Turtles in India?
- a) Gahirmatha Beach, Orissa
 - b) Marina Beach, Chennai
 - c) Gulf of Kutch, Gujarat
 - d) Kovalam Beach, Kerala

101. In a group of 30 people, 15 like coffee, 10 like tea, and 5 like both coffee and tea. How many people do not like either coffee or tea?
- a) 5
 - b) 10
 - c) 15
 - d) 20
102. A train travels from Station A to Station B at a speed of 60 km/h and returns from Station B to Station A at a speed of 45 km/h. What is the average speed of the train for the entire journey?
- a) 51.4 km/h
 - b) 50.3 km/h
 - c) 55 km/h
 - d) 48 km/h
103. In a classroom, there are 15 students sitting in a row. If the top 3 students with the highest scores are to be selected as the class representatives, how many different ways can this be done?
- a) 455
 - b) 336
 - c) 136
 - d) 90
104. C is the father-in-law of D, who is the mother of E, who is the son of B. How is B related to C?
- a) Husband
 - b) Son
 - c) Daughter
 - d) Brother
105. A person is standing at a point X. He walks 10 meters towards the east, turns left and walks 15 meters, turns right, and walks 20 meters, turns left and walks 30 meters, turns left again and walks 10 meters, and finally, turns right and walks 20 meters. In which direction is the person facing now?
- a) North
 - b) West
 - c) East
 - d) South
106. According to a military code, TATTOO is TATOOT and MAKEUP is KAMPUE. What is the code for GORGEOUS?
- a) SUOEGROG
 - b) GORGSUOE
 - c) GROGSUOE
 - d) GROGEOUS

107. If the ratio of the ages of two brothers is 5:7 and the sum of their ages is 60 years, what is the age of the younger brother?
- 20 years
 - 25 years
 - 30 years
 - 35 years
108. A clock gains 5 minutes every hour. If the clock is set to the correct time at 12:00 PM, what time will it show after 14 hours?
- 3:10 AM
 - 2:50 AM
 - 3:30 AM
 - 2:55 AM
109. What is the next number in the series: 1, 4, 27, 256, 3125, ?
- 46656
 - 16875
 - 7776
 - 15625
110. Select the most appropriate analogy from the choices given below:
- DETERIORATE : IMPROVE
- feckless: careless
 - evanescent: exigent
 - hope: hone
 - obstinate: tractable
111. ‘ਸੱਤੁਰਿਆ-ਬਹੱਤਰਿਆ i k D k’ ਦk n ਰਥ ਹੈ:
- ਗਿਣਤੀ ਕਰਨੀ
 - ਬਿਨਾਂ ਕਰਕੇ ਕਿਤੇ ਜਾਣਾ
 - ਬੁਢੇਪਾ ਆਉਣਾ
 - ਨਕਲ ਮਾਰੀ ਜਾਣੀ
112. ਉਪਕਰ, ਉਪਯੋਗ, ਉਪਨਾਮ ਸ਼ਬਦਾਂ ਵਿੱਚ ਕਿਹੜਾ ਨਗੇਤਰ ਵਰਤਿਆ ਗਿਆ ਹੈ:
- ਉ
 - ਉਪ
 - ਉਪਕ
 - ਓ

113. 'ਸਕਡੀਨਕ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀਨਕ ਹਨ।' ਦਕ ਵਚਨ ਬਦਲੇ:

- a) ਮੇਰੀ ਕੋਠੀ ਬਹੁਤ ਵੱਡੀਨਕ ਹਨ।
- b) ਸਕਡੀਨਕ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀ ਹੈ।
- c) ਮੇਰੀ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀਨਕ ਹੈ।
- d) ਮੇਰੀ ਕੋਠੀ ਬਹੁਤ ਵੱਡੀ ਹੈ।

114. nzਗਰੇਜ਼ੀ ਦੇ ਜੂਨ-ਜੁਲਕਈ ਮਹੀਨੇ ਵਿੱਚ ਕਿਹੜਕ ਦੇਸੀ ਮਹੀਨਕ ਆਉਂਦਕ ਹੈ?

- a) ਸਕਵਣ
- b) ਜੇਠ
- c) ਹਕੜ੍ਹ
- d) ਵਸਕਖ

115. ਰਚਨਕ ਦੁਆਬ ਕਿਹੜੇ ਦਰਿਆਵਾਂ ਵਿਚਕਰ ਦਕ ਇਲਕਕ ਹੈ?

- a) ਚਨਕਬ-ਜੇਹਲਮ
- b) ਚਨਕਬ-ਰਕਵੀ
- c) ਰਕਵੀ-ਬਿਆਸ
- d) ਬਿਆਸ-ਚਨਕਬ

116. 'qokV' dw ivroDwrQk Sbd hY

- a) m`J
- b) s`jr
- c) aUTxI
- d) srdI

117. j/m fbfynK ftu'A fejVk ;a[ZX gzikph ;apd o{g j? <

- a) gvWf
- b) guAWf
- c) guAWF
- d) guAwf

118. 'It has been drizzling since morning' dw pMjwbI rUp hY:

- a) svyr qoN bMUdw-bWdI ho rhI hY[
- b) svyr qoN mINh pY irhw hY[
- c) svyr qoN hvw c`l rhI hY[
- d) svyr qoN gVHy pY rhy hn[

119. ਹੇਠ ਲਿਖੇ ਸ਼ਬਦਾਂ ਵਿੱਚੋਂ 'ਉੱਲੂ' ਦਾ ਇਸਤਰੀ ਲਿੰਗ ਚੁਣੋ:

- a) ਉੱਲੂ
- b) ਉੱਲਣੀ
- c) ਬਟੋਰ
- d) ਬਤੌਰੀ

120. 'ਸੰਗ' ਦਾ ਇਕ ਨਰਥ ਹੈ 'ਸ਼ਰਮ' ਨੇ ਦੂਜਾ ਨਰਥ ਹੈ:

- a) ਸਕਥ
- b) ਹਕਲ
- c) ਕੱਚਕ
- d) ਨਝਗ

SPACE FOR ROUGH WORK

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (July-2023) for Recruitment to the post of Assistant Architect (Group-A) in the Departments of Local Govt. & PWD, Government of Punjab

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Total Questions: 120

Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth

DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

Question
Booklet Set

B

Booklet Series

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes out of 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black **ball point pen** to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has 21 pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages printed correctly and there are no blank pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet if issued for some reason should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is negative marking (1 mark for each question) for questions wrongly answered by the candidate.
10. Use of Electronic/Manual Calculator is prohibited.
11. The candidate MUST READ INSTRUCTIONS BEHIND THE OMR SHEET before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. 'ਸੱਤ੍ਰਿਆ-ਬਹੱਤਰਿਆ i kDk' ਦk nਰਥ ਹੈ:
 - a) ਗਿਣਤੀ ਕਰਨੀ
 - b) ਬਿਨਾਂ ਕਰਕੇ ਕਿਤੇ ਜਕਣਕ
 - c) ਬੁਢੇਪਕ ਆਉਣਕ
 - d) ਨਕਲ ਮਕਰੀ ਜਕਣੀ
2. ਉਪਕਰ, ਉਪਯੋਗ, ਉਪਨਕਮ ਸ਼ਬਦਾਂ ਵਿੱਚ ਕਿਹੜਕ ਨਗੋਤਰ ਵਰਤਿਆ ਗਿਆ ਹੈ:
 - a) ਉ
 - b) ਉਪ
 - c) ਉਪਕ
 - d) ਓ
3. 'ਸਕਡੀਨਕ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀਨਕ ਹਨ।' ਦਕ ਵਚਨ ਬਦਲੇ:
 - a) ਮੇਰੀ ਕੋਠੀ ਬਹੁਤ ਵੱਡੀਨਕ ਹਨ।
 - b) ਸਕਡੀਨਕ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀ ਹੈ।
 - c) ਮੇਰੀ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀਨਕ ਹੈ।
 - d) ਮੇਰੀ ਕੋਠੀ ਬਹੁਤ ਵੱਡੀ ਹੈ।
4. ਨਗਰੇਜ਼ੀ ਦੇ ਜੂਨ-ਜੁਲਕਈ ਮਹੀਨੇ ਵਿੱਚ ਕਿਹੜਕ ਦੇਸੀ ਮਹੀਨਕ ਆਉਂਦਕ ਹੈ?
 - a) ਸਕਵਣ
 - b) ਜੇਠ
 - c) ਹਕੜ੍ਹ
 - d) ਵਸਕਖ
5. ਰਚਨਕ ਦੁਆਬ ਕਿਹੜੇ ਦਰਿਆਵਾਂ ਵਿਚਕਕਰ ਦਕ ਇਲਕਕਕ ਹੈ?
 - a) ਚਨਕਬ-ਜੇਹਲਮ
 - b) ਚਨਕਬ-ਰਕਵੀ
 - c) ਰਕਵੀ-ਬਿਆਸ
 - d) ਬਿਆਸ-ਚਨਕਬ

6. 'qokV' dw ivroDwrQk Sbd hY

- a) m`J b) s`jr c) aUTxI d) srdI

7. j/m fb fynK ftu'A fejVk ;a[ZX gzikph ;apd o{g j? <

- a) gvWf b) guAWf c) guAWF d) guAwf

8. 'It has been drizzling since morning' dw pMjwbI rUp hY:

- a) svyr qoN bMUdw-bWdI ho rhI hY[
b) svyr qoN mINh pY irhw hY[
c) svyr qoN hvw c`l rhI hY[
d) svyr qoN gVHy pY rhy hn[

9. ਹੇਠ ਲਿਖੇ ਸ਼ਬਦਾਂ ਵਿੱਚੋਂ 'ਉੱਲੂ' ਦਾ ਇਸਤਰੀ ਲਿੰਗ ਚੁਣੋ:

- a) ਉੱਲੂ b) ਉੱਲਈ
c) ਬਟੇਰ d) ਬਤੋਰੀ

10. 'ਸੰਗ' ਦਾ ਇਕ ਨਰਥ ਹੈ 'ਸਰਮ' ਨਤੇ ਦੂਜਾ ਨਰਥ ਹੈ:

- a) ਸਕਥ b) ਹਕਲ
c) ਕੱਚਕ d) ਨਤਗ

11. World's first bronze sculpture was found in:

- a) Harappa
b) Mohenjodaro
c) Lothal
d) Rakhigarhi

12. Gopuram is an element of:

- a) Dravidian Architecture
b) Indo-Aryan Architecture
c) Jain Temple Architecture
d) Rock Cut Temple Architecture

13. Shaking minarets are located in:

- a) Ahmedabad
b) Agra
c) Jaipur
d) Hyderabad

14. An inclined section through a Cone will be seen as:
- a) Hexagon
 - b) Hyperbola
 - c) Spiral
 - d) Ellipse
15. How many faces does a Dodecahedron has?
- a) 12
 - b) 20
 - c) 30
 - d) 8
16. What is the minimum slope for climbing a ramp using wheelchair ?
- a) 1:8
 - b) 1:10
 - c) 1:12
 - d) 1:14
17. What is the minimum height of bathroom as per NBC?
- a) 2.2 m
 - b) 2.8 m
 - c) 2.75 m
 - d) 2.4 m
18. What does the Horizon line in a perspective represent?
- a) Height of the object
 - b) Eye level of observer
 - c) Distance from Picture plane
 - d) Cone of Vision
19. What are the stones or bricks at the corner of a building called?
- a) Jamb
 - b) Course
 - c) Quoin
 - d) Rebate
20. What is the percentage of Carbon in structural steel?
- a) 5 to 8 %
 - b) > 18 %
 - c) 1 to 2 %
 - d) < 0.5 %
21. Which term is used for Heating and slow Cooling of metals?
- a) Tempering
 - b) Annealing
 - c) Hardening
 - d) Melting

22. Which defect of timber occurs between or through annual growth rings?
- a) Knot
 - b) Shake
 - c) Decay
 - d) Split
23. Which truss is most suitable for glare free lighting in workshops?
- a) North light truss
 - b) King post truss
 - c) Fink truss
 - d) Warren Truss
24. Lancet Arch is also called _____ arch?
- a) Draped arch
 - b) Ogee arch
 - c) Acute arch
 - d) Multifoil arch
25. Silica, Charcoal and gypsum is used in paints as a _____
- a) Plasticizer
 - b) Inert filler
 - c) Antiskinning agent
 - d) Thinner
26. Which is a mode of failure in a structural member?
- a) Buckling
 - b) Compression
 - c) Torsion
 - d) Equilibrium
27. Which of the following is a criterion for design of Storm water drainage?
- a) Catchment Area
 - b) Population of a City/ town
 - c) Number of cloudy days
 - d) Solar irradiance
28. The acceptable noise level in Hospital corresponds to which of the following?
- a) 10-15 dB
 - b) 35-40 dB
 - c) 60-65 dB
 - d) 90-100 dB
29. Luminous intensity is expressed in which units?
- a) Watt
 - b) Lumens
 - c) Wall per metre
 - d) Candela

30. A residence has a terrace area of 50 m² and runoff coefficient of 0.5. For an average rainfall of 500 mm, the rainwater harvesting potential from terrace shall be ____m³?
- a) 1.25
 - b) 12.5
 - c) 125
 - d) 1250
31. Which of the following is a passive design feature?
- a) Solar Chimney
 - b) Air Cooler
 - c) Exhaust Fan
 - d) Air Conditioner
32. Which Green rating system is followed in United Kingdom?
- a) CASBEE
 - b) GRIHA
 - c) BREEAM
 - d) Green Mark
33. Calculate the maximum number of 100 sq. m. apartments that can be constructed on a 1-hectare plot, having ground coverage of 40 percent and an FAR of 1.5
- a) 100
 - b) 60
 - c) 200
 - d) 150
34. A Smart City DOES NOT include which among the following?
- a) Information and Communication Technology
 - b) Management Information System
 - c) Surveillance System
 - d) Urban Heat Index
35. What has replaced the Planning Commission in 2017?
- a) Ayushman Bharat Yojna
 - b) Valmiki Ambedkar Awas Yojna
 - c) Two Million Housing Programme
 - d) NITI Aayog
36. Meditation space, Hill, Pond, Zen, Curved elements and use of Symbolic features is a characteristic feature of _____ gardens.
- a) Mughal
 - b) English
 - c) Italian
 - d) Japanese

37. Which of the following is NOT an Adhesive?
- a) Epoxy Resin
 - b) Vinyl
 - c) Urea Formaldehyde
 - d) Phenyl Formaldehyde
38. An earthquake with a Richter Scale of 6.0 is classified as _____
- a) Strong
 - b) Mild
 - c) Little
 - d) Insignificant
39. The full form of AMRUT is _____
- a) Augmented Monuments for Recreation and Urban Transportation
 - b) Atal Mission for Recreation and Urban Transportation
 - c) Atal Mission for Rejuvenation and Urban Transformation
 - d) Associated Monuments for Recreation and Urban Transformation
40. Grade M-25 of concrete mix refers to:
- a) 1:2:4
 - b) 1:3:6
 - c) 1:1:3
 - d) 1:1:2
41. If the successful tender fails to submit the additional performance security within _____ no. of working days from the date of issue of letter of acceptance, his earnest money will be forfeited.
- a) 7
 - b) 15
 - c) 21
 - d) 28
42. Plans used to identify site in relation to town plan or other wider context are called:
- a) General location Plans
 - b) Site plans
 - c) Layout plans
 - d) Reflected Plan
43. India habitat center, New Delhi, was designed by:
- a) Charles Correa
 - b) Raj Rewal
 - c) Joseph Allen Stein
 - d) A. P. Kanvinde

44. In CMYK colour model, 'C' represents the colour:
- a) White
 - b) Black
 - c) Blue
 - d) Green
45. New parliament house , New Delhi, is designed by:
- a) Hafez contractor
 - b) Raj Rewal
 - c) Herbert Baker
 - d) Bimal Patel
46. Hoop and circumferential forces are associated with:
- a) Dome
 - b) Truss
 - c) Folded Plate
 - d) Cylinder
47. Recommended height for the wash basin as per barrier free norm is:
- a) 500 – 600 mm
 - b) 600 - 850 mm
 - c) 700 - 800 mm
 - d) 800 - 900 mm
48. The solar protection system consisting of fixed slates or grids outside a building façade in front of openings is known as:
- a) Solarium
 - b) Trombe Wall
 - c) Malqaf
 - d) Brise-soleil
49. Which of the following is the correct sequence from top to bottom for the elements used in the Entablature in ancient Greek Architecture?
- a) Cyma recta, Corona, Dentil, Frieze, Architrave
 - b) Corona, Cyma recta, Architrave, Frieze, Dentil
 - c) Architrave, Frieze, Corona, Dentil, Cyma recta
 - d) Dentil, Cyma recta, Corona, Frieze, Architrave
50. Which of the following is a temple having an apsidal plan?
- a) Lad Khan Temple, Aihole
 - b) Virupaksha Temple, Pattadakal
 - c) Brihadeshwara Temple, Tanjore
 - d) Papanatha Temple, Pattadakal

51. For a PERT activity, the optimistic time, the most likely time and pessimistic time are 1, 2 and 9 days respectively. The expected time for the activity(in days) is:
- a) 9
 - b) 6
 - c) 4
 - d) 3
52. Line up to which the plinth of a building adjoining a street may be law-fully extended is called:
- a) Building line
 - b) Building boundary
 - c) Building extend
 - d) Building plan
53. The raft slab is projected beyond the outer walls of the structure by:
- a) 5 to 10 cm
 - b) 15 to 20 cm
 - c) 25 to 30 cm
 - d) 30 to 45 cm
54. Which type of truss is characterized by multiple diagonal members forming a series of V-shapes?
- a) Warren truss
 - b) Pratt truss
 - c) K truss
 - d) Vierendeel truss
55. A property fetches a net income of Rs.1000/- deducting all outgoings. Workout the capitalized value of the property if the rate of interest is 5% per annum.
- a) Rs.5000
 - b) Rs.20000
 - c) Rs.10000
 - d) Rs.24000
56. According to National Building Code of India, Industrial buildings are categorized under which group of occupancy?
- a) Group G
 - b) Group E
 - c) Group F
 - d) Group H
57. The illumination level of a room is 350 lux and the efficacy of the lamps is 50. What will be the Light Power Density (LPD) of the room in Watt/m²?
- a) 5 Watt/ m²
 - b) 7 Watt/ m²
 - c) 10 Watt/ m²
 - d) 8 Watt/ m²

58. Find the reverberation time of a hall having dimensions 50m x 25m x 35m and having the absorption coefficient of 0.15.
- a) 1.8 sec
 - b) 2.8 sec
 - c) 3.8 sec
 - d) None of the above
59. When the load are reversing, the beam is designed as:
- a) Singly reinforced
 - b) Doubly reinforced
 - c) Over-reinforced
 - d) Cantilever beam
60. In planning for malls, the required public and toilet facilities shall be located not more than one storey above or below the space to be served with such facilities, and the path of travel to such facilities shall not exceed:
- a) 89 m
 - b) 90 m
 - c) 91 m
 - d) 92 m
61. A building with a green roof is an example of:
- a) Climate-responsive design in a hot and humid climate
 - b) Climate-responsive design in a cold climate
 - c) Climate-responsive design in a tropical climate
 - d) Climate-responsive design in an urban environment
62. As per National Building Code of India 2016, area for each equivalent car space inclusive of circulation area for open parking, ground floor covered parking and basement respectively is
- a) 22 sqm, 25 sqm, 30 sqm
 - b) 23 sqm, 28 sqm, 32 sqm
 - c) 20 sqm, 25 sqm, 30 sqm
 - d) 24 sqm, 28 sqm, 32 sqm
63. In Autodesk AutoCAD, when in absolute Cartesian coordinates have points A(10.8) and B(6.5), then to make a line from A to B with relative polar coordinates will write:
- a) @-5<36.88
 - b) @4<30
 - c) @5<216.88
 - d) @3<60
64. What type of mode of failure is seen if footing is resting on very dense sand, loaded by transient dynamic loads?
- a) Local Shear failure
 - b) Transient Shear failure
 - c) Punching Shear failure
 - d) Flexural Failure

65. For signage, what should be the minimum height of letters in mm for a viewing distance of 12 m?

- a) 30
- b) 32
- c) 40
- d) 45

66. The modified form of old English cross bond which consists of alternative courses of headers and stretchers is known as:

- a) Raking bond
- b) Dutch bond
- c) Header bond
- d) Facing bond

67. Match List I (Pozzolana) with List II (Properties) and select the correct option from the codes given below:

List I		List II	
A	Iron oxide	1.	Prevent the flash setting of cement.
B	NaCl	2.	Provides strength to the cement.
C	Silica	3.	Accelerates the rate of setting of Plaster of Paris
D	Gypsum	4.	Gives colour to the cement.

Codes:

- | | | | | |
|----|---|---|---|---|
| | A | B | C | D |
| a) | 2 | 4 | 1 | 3 |
| b) | 4 | 3 | 2 | 1 |
| c) | 3 | 1 | 4 | 2 |
| d) | 1 | 2 | 3 | 4 |

68. Match the plants in List I with their prime uses in List II :

List I

- A. Bignonia magnifica
- B. Ixora chinensis
- C. Cassia fistula
- D. Wedeliatrilobata

List II

- 1. Grass cover
- 2. Wall climbers
- 3. Topiary
- 4. Arboriculture

Codes:

- | | | | | |
|----|---|---|---|---|
| | A | B | C | D |
| a) | 4 | 1 | 2 | 3 |
| b) | 4 | 3 | 1 | 2 |
| c) | 2 | 3 | 4 | 1 |
| d) | 3 | 2 | 4 | 1 |

69. A casement window hung horizontally is called _____ window.

- a) Hopper
- b) Awning
- c) Pivot
- d) Transom

70. What is Postmodernism in architecture primarily defined as?

- a) A historical revival movement
- b) A reaction against modernism
- c) A formalist belief in function over form
- d) A style based around the use of modern materials

71. Interface of two ecological zones is termed as:

- a) Promontories
- b) Ecotone
- c) Biome
- d) Ecosystem

72. Match the Landscape designers listed in List I with their appropriate contribution from List II and choose the correct option from the codes given below:

List I

- A. Lancelot Capability Brown
- B. Andre le Notre
- C. Joseph Paxton
- D. Frederick Law Olmstead

List II

- 1. Kew gardens
- 2. Versailles garden
- 3. Central park
- 4. Crystal Palace

Codes:

	A	B	C	D
a)	3	1	4	2
b)	1	3	4	2
c)	1	2	3	4
d)	1	2	4	3

73. Hierarchy of courts, hierarchy of gates and zoomorphic forms are the features of which type of garden?

- a) Japanese
- b) Mughal garden
- c) Chinese garden
- d) English garden

74. In horizontal DPC, the thickness of the cement concrete is _____

- a) 8 CM
- b) 4 CM
- c) 3 CM
- d) 6 CM

75. A roof with slope in two directions with a break in slope on each side is called as:
- a) Gambrel roof
 - b) Gabel roof
 - c) Skillion and Lean to
 - d) French roof
76. The direct and indirect cost estimated by a contractor for bidding a project is Rs.160000 and Rs. 20000 respectively. If the markup applied is 10% of the bid price, the quoted price of the contractor is:
- a) Rs.216000
 - b) Rs.196000
 - c) Rs. 200000
 - d) Rs. 190000
77. The PVCN range of paint for prime coat on metals is:
- a) 50-70
 - b) 25-40
 - c) 50-60
 - d) 55-60
78. Which of the following constructions is effective against both air-borne and structure-borne sounds?
- a) Timber floor floating construction
 - b) Use of resilient surface material
 - c) Timber floor with suspended ceiling and air space
 - d) Concrete floor floating construction
79. The echo will be detectable to a human ear in which of the following room dimension? Assume that the surfaces are not good absorbers.
- a) 4m x 5m
 - b) 18m x 4m
 - c) 10m x 3m
 - d) 12m x 12m
80. Maintenance Ratio in lighting calculation is defined as:
- a) The ratio of illumination under normal working conditions to the illumination when everything is clean.
 - b) The ratio of illumination under normal working conditions to the illumination when everything is dirty.
 - c) The cost of human labor to clean 1SqM of the surface
 - d) None of the above
81. Which of the following features of Indian temples resembles pylons of the Egyptian temples?
- a) Vimana
 - b) Shikara
 - c) Gopura
 - d) Antarala

82. Which of the following architectural structures is not a contribution of Sir Edwin Lutyen?
- a) Rashtrapati Bhavan
 - b) Parliament House
 - c) Hyderabad House
 - d) Connaught Place
83. What is another name of 'Gate of Magnificence, the highest gateway of India at Fatehpur Sikri built by Akbar?
- a) Teen Darwaza
 - b) Alai Darwaza
 - c) Buland Darwaza
 - d) India Gate
84. Service tax rate for architectural consultancy fees in India is:
- a) 5%
 - b) 12%
 - c) 18%
 - d) 24%
85. Which of the following gives the highest sound absorption in a room?
- a) Rigid wall
 - b) Rough ceiling
 - c) Soft curtain
 - d) Open window
86. The rafter that makes the closed triangular end of a pitched roof in timber is called:
- a) Jack rafter
 - b) Valley rafter
 - c) Common rafter
 - d) Hip rafter
87. In case of a double roof of timber, which of the following statement is not correct?
- a) The rafter is supported on purlins
 - b) The purlins is supported on end walls
 - c) The batten is supported on rafters
 - d) The purlin is supported on trusses
88. Trapezoidal footing is a:
- a) Column footing
 - b) Combined footing
 - c) Stepped footing
 - d) Deep foundation
89. In pressure supply mains, water hammer pressure is reduced by providing:
- a) Sluice valves
 - b) Air valves
 - c) Pressure relief valves
 - d) Suction Valve

90. Mostly used coagulant is:

- a) Chlorine
- b) Alum
- c) Lime
- d) Bleaching powder

91. Associate the plans in List I with the options in List II and choose the correct option from the codes given below:

List I	List II
A. City Development plan	1. PMGSY
B. Slum Free City Plan	2. JNNURM
C. Transport Network Plan	3. RAY
D. Disaster Management Plan	4. NDMA

Codes:

	A	B	C	D
a)	2	3	1	4
b)	3	2	1	4
c)	2	1	3	4
d)	1	3	2	4

92. Which of the following Mud wall construction is preferred in Earthquake prone zones?

- a) Adobe
- b) Wattle and Daub
- c) Stabilized mud block
- d) Rammed earth

93. Minimum height of habitable rooms is

- a) 2.5 m
- b) 2.75 m
- c) 1.5 m
- d) 2 m

94. What is the type of slab in which some part of cement is replaced with cheap light weight material?

- a) Collar slab
- b) Waffle slab
- c) Flat slabs
- d) Filler slab

95. Which of the following is a non-natural defect in wood?

- a) Chemical Stain
- b) Twisted fibre
- c) Upsets
- d) Conversion

96. Clerestory windows are high and vertically placed windows. They can be used to increase _____ when oriented towards the equator.
- a) Indirect gain
 - b) Isolated gain
 - c) Direct Solar gain
 - d) Indirect heat gain
97. Increased height of the room gives better ventilation due to _____
- a) Venturi effect
 - b) Bernoulli's effect
 - c) Stack Effect
 - d) Light effect
98. Beaufort Scale is:
- a) Scale representing wind speed
 - b) Scale for measuring humidity
 - c) Scale for measuring earthquake
 - d) Scale measuring landslide
99. A Stair is to be provided for a residence with floor height of 3m. If the space available for the stair is 4m x 2.5m, what kind of stair you propose?
- a) Open-well
 - b) Bifurcated
 - c) Dog-legged
 - d) All the above
100. The joists in a Single Timber Floor is provided _____, while it is _____ in a Double Floor.
- a) across the span, along the span
 - b) along the span, across the span
 - c) across the span, across the span
 - d) along the span, along the span
101. Which of the Mughal Monuments marked a new beginning in the style of architecture of North India with the dome made of marble as its most remarkable feature?
- a) Badshahi Mosque
 - b) Bibi ka Maqbara
 - c) Humayun's Tomb
 - d) Taj Mahal
102. Takht Sri Damdama Sahib, one of the five takhts of Sikhs is situated in:
- a) Patiala
 - b) Talwandi Sabo
 - c) Amritsar
 - d) Jalandhar

103. Who was the first Punjabi writer to receive Jnanpith Award ?
- a) Amrita Pritam
 - b) Gurdial Singh
 - c) Surjit Paatan
 - d) Khushwant Singh
104. For how many years, a person of Indian origin must have been an ordinary resident of India before making application towards getting citizenship by registration?
- a) 10
 - b) 8
 - c) 5
 - d) 7
105. Concrete and fiber glass are_____
- a) Composite materials
 - b) Ceramic materials
 - c) Polymers
 - d) Semiconductors
106. The pH value of acidic medium is:
- a) More than 7
 - b) Equal to 7
 - c) More than 10
 - d) Less than 7
107. Radiation therapy (Radiotherapy) is used for treatment of various types of cancers, and it is based on application of radiations. Which of the following radiations are mostly used for radiotherapy for cancer?
- a) Gamma radiations
 - b) UV- radiations
 - c) Microwave radiations
 - d) Infrared radiations
108. In which of the following states the newly built state secretariat building was inaugurated in the last week of April, 2023?
- a) Odisha
 - b) Andhra Pradesh
 - c) Chhattisgarh
 - d) Telangana
109. By which of the following Acts was the Governor General of Bengal designated as the Governor General of India?
- a) The Regulation Act of 1773
 - b) The Pitt's India Act of 1784
 - c) The Charter Act of 1793
 - d) The Charter Act of 1833

110. Which of the following is a world famous beach for the 'Arribada' (arrival) of Olive Ridley Turtles in India?
- a) Gahirmatha Beach, Orissa
 - b) Marina Beach, Chennai
 - c) Gulf of Kutch, Gujarat
 - d) Kovalam Beach, Kerala
111. In a group of 30 people, 15 like coffee, 10 like tea, and 5 like both coffee and tea. How many people do not like either coffee or tea?
- a) 5
 - b) 10
 - c) 15
 - d) 20
112. A train travels from Station A to Station B at a speed of 60 km/h and returns from Station B to Station A at a speed of 45 km/h. What is the average speed of the train for the entire journey?
- a) 51.4 km/h
 - b) 50.3 km/h
 - c) 55 km/h
 - d) 48 km/h
113. In a classroom, there are 15 students sitting in a row. If the top 3 students with the highest scores are to be selected as the class representatives, how many different ways can this be done?
- a) 455
 - b) 336
 - c) 136
 - d) 90

114. C is the father-in-law of D, who is the mother of E, who is the son of B. How is B related to C?
- a) Husband
 - b) Son
 - c) Daughter
 - d) Brother
115. A person is standing at a point X. He walks 10 meters towards the east, turns left and walks 15 meters, turns right, and walks 20 meters, turns left and walks 30 meters, turns left again and walks 10 meters, and finally, turns right and walks 20 meters. In which direction is the person facing now?
- a) North
 - b) West
 - c) East
 - d) South
116. According to a military code, TATTOO is TATOOT and MAKEUP is KAMPUE. What is the code for GORGEOUS?
- a) SUOEGROG
 - b) GORGSUOE
 - c) GROGSUOE
 - d) GROGEOUS
117. If the ratio of the ages of two brothers is 5:7 and the sum of their ages is 60 years, what is the age of the younger brother?
- a) 20 years
 - b) 25 years
 - c) 30 years
 - d) 35 years
118. A clock gains 5 minutes every hour. If the clock is set to the correct time at 12:00 PM, what time will it show after 14 hours?
- a) 3:10 AM
 - b) 2:50 AM
 - c) 3:30 AM
 - d) 2:55 AM

119. What is the next number in the series: 1, 4, 27, 256, 3125, ?

- a) 46656
- b) 16875
- c) 7776
- d) 15625

120. Select the most appropriate analogy from the choices given below:

DETERIORATE : IMPROVE

- a) feckless: careless
- b) evanescent: exigent
- c) hope: hone
- d) obstinate: tractable

SPACE FOR ROUGH WORK

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (July-2023) for Recruitment to the post of Assistant Architect (Group-A) in the Departments of Local Govt. & PWD, Government of Punjab

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Total Questions: 120

Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth

DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

Question Booklet Set
C
Booklet Series

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes out of 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black **ball point pen** to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has 21 pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages printed correctly and there are no blank pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet if issued for some reason should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is negative marking (1 mark for each question) for questions wrongly answered by the candidate.
10. Use of Electronic/Manual Calculator is prohibited.
11. The candidate MUST READ INSTRUCTIONS BEHIND THE OMR SHEET before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

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9. What is the next number in the series: 1, 4, 27, 256, 3125, ?
- 46656
 - 16875
 - 7776
 - 15625
10. Select the most appropriate analogy from the choices given below:
- DETERIORATE : IMPROVE
- feckless: careless
 - evanescent: exigent
 - hope: hone
 - obstinate: tractable
11. 'ਸੱਤੁਰਿਆ-ਬਹੱਤਰਿਆ i k D k' ਦ k ਨਰਥ ਹੈ:
- ਗਿਣਤੀ ਕਰਨੀ
 - ਬਿਨਾਂ ਕਰਕਣ ਕਿਤੇ ਜਕਣਕ
 - ਬੁਢੇਪਕ ਆਉਣਕ
 - ਨਕਲ ਮਕਰੀ ਜਕਣੀ
12. ਉਪਕਰ, ਉਪਯੋਗ, ਉਪਨਕਮ ਸ਼ਬਦਾਂ ਵਿੱਚ ਕਿਹੜਕ ਨਗੇਤਰ ਵਰਤਿਆ ਗਿਆ ਹੈ:
- ਉ
 - ਉਪ
 - ਉਪਕ
 - ਓ

13. 'ਸਕਡੀਨਕ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀਨਕ ਹਨ।' ਦਕ ਵਚਨ ਬਦਲੋ:

- a) ਮੇਰੀ ਕੋਠੀ ਬਹੁਤ ਵੱਡੀਨਕ ਹਨ।
- b) ਸਕਡੀਨਕ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀ ਹੈ।
- c) ਮੇਰੀ ਕੋਠੀਨਕ ਬਹੁਤ ਵੱਡੀਨਕ ਹੈ।
- d) ਮੇਰੀ ਕੋਠੀ ਬਹੁਤ ਵੱਡੀ ਹੈ।

14. ਨਜ਼ਾਰੇਜ਼ੀ ਦੇ ਜੂਨ-ਜੁਲਕਈ ਮਹੀਨੇ ਵਿੱਚ ਕਿਹੜਕ ਦੇਸੀ ਮਹੀਨਕ ਆਉਂਦਕ ਹੈ?

- a) ਸਕਵਣ
- b) ਜੇਠ
- c) ਹਕੜ੍ਹ
- d) ਵਸਕਖ

15. ਰਚਨਕ ਦੁਆਬ ਕਿਹੜੇ ਦਰਿਆਵਾਂ ਵਿਚਕਕਰ ਦਕ ਇਲਕਕਕ ਹੈ?

- a) ਚਨਕਬ-ਜੇਹਲਮ
- b) ਚਨਕਬ-ਰਕਵੀ
- c) ਰਕਵੀ-ਬਿਆਸ
- d) ਬਿਆਸ-ਚਨਕਬ

16. 'qokV' dw ivroDwrQk Sbd hY

- a) m`J
- b) s`jr
- c) aUTxI
- d) srdI

17. j/m fbfynK ftu'A fejVk ;a[ZX gzikph ;apd o{g j? <

- a) gvWf
- b) guAWf
- c) guAWF
- d) guAwf

18. 'It has been drizzling since morning' dw pMjwbI rUp hY:

- a) svyr qoN bMUdw-bWdI ho rhI hY[
- b) svyr qoN mINh pY irhw hY[
- c) svyr qoN hvw c`l rhI hY[
- d) svyr qoN gVHy pY rhy hn[

19. ਹੇਠ ਲਿਖੇ ਸ਼ਬਦਾਂ ਵਿੱਚੋਂ 'ਉੱਲੂ' ਦਾ ਇਸਤਰੀ ਲਿੰਗ ਚੁਣੋ:

- a) ਉੱਲੂ b) ਉੱਲਣੀ
- c) ਬਟੇਰ d) ਬਟੇਰੀ

20. 'ਸੰਗ' ਦਾ ਇਕ ਨਰਥ ਹੈ 'ਸ਼ਰਮ' ਨਤੇ ਦੂਜਾ ਨਰਥ ਹੈ:

- a) ਸਕਥ b) ਹਕਲ
- c) ਕੱਚਕ d) ਨਕਗ

21. World's first bronze sculpture was found in:

- a) Harappa
- b) Mohenjodaro
- c) Lothal
- d) Rakhigarhi

22. Gopuram is an element of:

- a) Dravidian Architecture
- b) Indo-Aryan Architecture
- c) Jain Temple Architecture
- d) Rock Cut Temple Architecture

23. Shaking minarets are located in:

- a) Ahmedabad
- b) Agra
- c) Jaipur
- d) Hyderabad

24. An inclined section through a Cone will be seen as:

- a) Hexagon
- b) Hyperbola
- c) Spiral
- d) Ellipse

25. How many faces does a Dodecahedron has?

- a) 12
- b) 20
- c) 30
- d) 8

26. What is the minimum slope for climbing a ramp using wheelchair ?

- a) 1:8
- b) 1:10
- c) 1:12
- d) 1:14

27. What is the minimum height of bathroom as per NBC?
- a) 2.2 m
 - b) 2.8 m
 - c) 2.75 m
 - d) 2.4 m
28. What does the Horizon line in a perspective represent?
- a) Height of the object
 - b) Eye level of observer
 - c) Distance from Picture plane
 - d) Cone of Vision
29. What are the stones or bricks at the corner of a building called?
- a) Jamb
 - b) Course
 - c) Quoin
 - d) Rebate
30. What is the percentage of Carbon in structural steel?
- a) 5 to 8 %
 - b) > 18 %
 - c) 1 to 2 %
 - d) < 0.5 %
31. Which term is used for Heating and slow Cooling of metals?
- a) Tempering
 - b) Annealing
 - c) Hardening
 - d) Melting
32. Which defect of timber occurs between or through annual growth rings?
- a) Knot
 - b) Shake
 - c) Decay
 - d) Split
33. Which truss is most suitable for glare free lighting in workshops?
- a) North light truss
 - b) King post truss
 - c) Fink truss
 - d) Warren Truss
34. Lancet Arch is also called _____ arch?
- a) Draped arch
 - b) Ogee arch
 - c) Acute arch
 - d) Multifoil arch

35. Silica, Charcoal and gypsum is used in paints as a _____
- a) Plasticizer
 - b) Inert filler
 - c) Antiskinning agent
 - d) Thinner
36. Which is a mode of failure in a structural member?
- a) Buckling
 - b) Compression
 - c) Torsion
 - d) Equilibrium
37. Which of the following is a criterion for design of Storm water drainage?
- a) Catchment Area
 - b) Population of a City/ town
 - c) Number of cloudy days
 - d) Solar irradiance
38. The acceptable noise level in Hospital corresponds to which of the following?
- a) 10-15 dB
 - b) 35-40 dB
 - c) 60-65 dB
 - d) 90-100 dB
39. Luminous intensity is expressed in which units?
- a) Watt
 - b) Lumens
 - c) Wall per metre
 - d) Candela
40. A residence has a terrace area of 50 m^2 and runoff coefficient of 0.5. For an average rainfall of 500 mm, the rainwater harvesting potential from terrace shall be ____ m^3 ?
- a) 1.25
 - b) 12.5
 - c) 125
 - d) 1250
41. Which of the following is a passive design feature?
- a) Solar Chimney
 - b) Air Cooler
 - c) Exhaust Fan
 - d) Air Conditioner
42. Which Green rating system is followed in United Kingdom?
- a) CASBEE
 - b) GRIHA
 - c) BREEAM
 - d) Green Mark

43. Calculate the maximum number of 100 sq. m. apartments that can be constructed on a 1-hectare plot, having ground coverage of 40 percent and an FAR of 1.5
- a) 100
 - b) 60
 - c) 200
 - d) 150
44. A Smart City DOES NOT include which among the following?
- a) Information and Communication Technology
 - b) Management Information System
 - c) Surveillance System
 - d) Urban Heat Index
45. What has replaced the Planning Commission in 2017?
- a) Ayushman Bharat Yojna
 - b) Valmiki Ambedkar Awas Yojna
 - c) Two Million Housing Programme
 - d) NITI Aayog
46. Meditation space, Hill, Pond, Zen, Curved elements and use of Symbolic features is a characteristic feature of _____ gardens.
- a) Mughal
 - b) English
 - c) Italian
 - d) Japanese
47. Which of the following is NOT an Adhesive?
- a) Epoxy Resin
 - b) Vinyl
 - c) Urea Formaldehyde
 - d) Phenyl Formaldehyde
48. An earthquake with a Richter Scale of 6.0 is classified as _____
- a) Strong
 - b) Mild
 - c) Little
 - d) Insignificant
49. The full form of AMRUT is _____
- a) Augmented Monuments for Recreation and Urban Transportation
 - b) Atal Mission for Recreation and Urban Transportation
 - c) Atal Mission for Rejuvenation and Urban Transformation
 - d) Associated Monuments for Recreation and Urban Transformation

50. Grade M-25 of concrete mix refers to:

- a) 1:2:4
- b) 1:3:6
- c) 1:1:3
- d) 1:1:2

51. If the successful tender fails to submit the additional performance security within _____ no. of working days from the date of issue of letter of acceptance, his earnest money will be forfeited.

- a) 7
- b) 15
- c) 21
- d) 28

52. Plans used to identify site in relation to town plan or other wider context are called:

- a) General location Plans
- b) Site plans
- c) Layout plans
- d) Reflected Plan

53. India habitat center, New Delhi, was designed by:

- a) Charles Correa
- b) Raj Rewal
- c) Joseph Allen Stein
- d) A. P. Kanvinde

54. In CMYK colour model, 'C' represents the colour:

- a) White
- b) Black
- c) Blue
- d) Green

55. New parliament house , New Delhi, is designed by:

- a) Hafeez contractor
- b) Raj Rewal
- c) Herbert Baker
- d) Bimal Patel

56. Hoop and circumferential forces are associated with:

- a) Dome
- b) Truss
- c) Folded Plate
- d) Cylinder

57. Recommended height for the wash basin as per barrier free norm is:

- a) 500 – 600 mm
- b) 600 - 850 mm
- c) 700 - 800 mm
- d) 800 - 900 mm

58. The solar protection system consisting of fixed slates or grids outside a building façade in front of openings is known as:
- a) Solarium
 - b) Trombe Wall
 - c) Malqaf
 - d) Brise-soleil
59. Which of the following is the correct sequence from top to bottom for the elements used in the Entablature in ancient Greek Architecture?
- a) Cyma recta, Corona, Dentil, Frieze, Architrave
 - b) Corona, Cyma recta, Architrave, Frieze, Dentil
 - c) Architrave, Frieze, Corona, Dentil, Cyma recta
 - d) Dentil, Cyma recta, Corona, Frieze, Architrave
60. Which of the following is a temple having an apsidal plan?
- a) Lad Khan Temple, Aihole
 - b) Virupaksha Temple, Pattadakal
 - c) Brihadeshwara Temple, Tanjore
 - d) Papanatha Temple, Pattadakal
61. For a PERT activity, the optimistic time, the most likely time and pessimistic time are 1, 2 and 9 days respectively. The expected time for the activity(in days) is:
- a) 9
 - b) 6
 - c) 4
 - d) 3
62. Line up to which the plinth of a building adjoining a street may be law-fully extended is called:
- a) Building line
 - b) Building boundary
 - c) Building extend
 - d) Building plan
63. The raft slab is projected beyond the outer walls of the structure by:
- a) 5 to 10 cm
 - b) 15 to 20 cm
 - c) 25 to 30 cm
 - d) 30 to 45 cm
64. Which type of truss is characterized by multiple diagonal members forming a series of V-shapes?
- a) Warren truss
 - b) Pratt truss
 - c) K truss
 - d) Vierendeel truss

65. A property fetches a net income of Rs.1000/- deducting all outgoings. Workout the capitalized value of the property if the rate of interest is 5% per annum.
- a) Rs.5000
 - b) Rs.20000
 - c) Rs.10000
 - d) Rs.24000
66. According to National Building Code of India, Industrial buildings are categorized under which group of occupancy?
- a) Group G
 - b) Group E
 - c) Group F
 - d) Group H
67. The illumination level of a room is 350 lux and the efficacy of the lamps is 50. What will be the Light Power Density (LPD) of the room in Watt/m²?
- a) 5 Watt/ m²
 - b) 7 Watt/ m²
 - c) 10 Watt/ m²
 - d) 8 Watt/ m²
68. Find the reverberation time of a hall having dimensions 50m x 25m x 35m and having the absorption coefficient of 0.15.
- a) 1.8 sec
 - b) 2.8 sec
 - c) 3.8 sec
 - d) None of the above
69. When the load are reversing, the beam is designed as:
- a) Singly reinforced
 - b) Doubly reinforced
 - c) Over-reinforced
 - d) Cantilever beam
70. In planning for malls, the required public and toilet facilities shall be located not more than one storey above or below the space to be served with such facilities, and the path of travel to such facilities shall not exceed:
- a) 89 m
 - b) 90 m
 - c) 91 m
 - d) 92 m

71. A building with a green roof is an example of:
- a) Climate-responsive design in a hot and humid climate
 - b) Climate-responsive design in a cold climate
 - c) Climate-responsive design in a tropical climate
 - d) Climate-responsive design in an urban environment
72. As per National Building Code of India 2016, area for each equivalent car space inclusive of circulation area for open parking, ground floor covered parking and basement respectively is
- a) 22 sqm, 25 sqm, 30 sqm
 - b) 23 sqm, 28 sqm, 32 sqm
 - c) 20 sqm, 25 sqm, 30 sqm
 - d) 24 sqm, 28 sqm, 32 sqm
73. In Autodesk AutoCAD, when in absolute Cartesian coordinates have points A(10.8) and B(6.5), then to make a line from A to B with relative polar coordinates will write:
- a) @-5<36.88
 - b) @4<30
 - c) @5<216.88
 - d) @3<60
74. What type of mode of failure is seen if footing is resting on very dense sand, loaded by transient dynamic loads?
- a) Local Shear failure
 - b) Transient Shear failure
 - c) Punching Shear failure
 - d) Flexural Failure
75. For signage, what should be the minimum height of letters in mm for a viewing distance of 12 m?
- a) 30
 - b) 32
 - c) 40
 - d) 45
76. The modified form of old English cross bond which consists of alternative courses of headers and stretchers is known as:
- a) Raking bond
 - b) Dutch bond
 - c) Header bond
 - d) Facing bond

77. Match List I (Pozzolana) with List II (Properties) and select the correct option from the codes given below:

List I		List II	
A	Iron oxide	1.	Prevent the flash setting of cement.
B	NaCl	2.	Provides strength to the cement.
C	Silica	3.	Accelerates the rate of setting of Plaster of Paris
D	Gypsum	4.	Gives colour to the cement.

Codes:

	A	B	C	D
a)	2	4	1	3
b)	4	3	2	1
c)	3	1	4	2
d)	1	2	3	4

78. Match the plants in List I with their prime uses in List II :

List I	List II
A. Bignonia magnifica	1. Grass cover
B. Ixora chinensis	2. Wall climbers
C. Cassia fistula	3. Topiary
D. Wedelia trilobata	4. Arboriculture

Codes:

	A	B	C	D
a)	4	1	2	3
b)	4	3	1	2
c)	2	3	4	1
d)	3	2	4	1

79. A casement window hung horizontally is called _____ window.

- a) Hopper
- b) Awning
- c) Pivot
- d) Transom

80. What is Postmodernism in architecture primarily defined as?

- a) A historical revival movement
- b) A reaction against modernism
- c) A formalist belief in function over form
- d) A style based around the use of modern materials

81. Interface of two ecological zones is termed as:

- a) Promontories
- b) Ecotone
- c) Biome
- d) Ecosystem

82. Match the Landscape designers listed in List I with their appropriate contribution from List II and choose the correct option from the codes given below:

List I

- A. Lancelot Capability Brown
- B. Andre le Notre
- C. Joseph Paxton
- D. Frederick Law Olmstead

List II

- 1. Kew gardens
- 2. Versailles garden
- 3. Central park
- 4. Crystal Palace

Codes:

	A	B	C	D
a)	3	1	4	2
b)	1	3	4	2
c)	1	2	3	4
d)	1	2	4	3

83. Hierarchy of courts, hierarchy of gates and zoomorphic forms are the features of which type of garden?

- a) Japanese
- b) Mughal garden
- c) Chinese garden
- d) English garden

84. In horizontal DPC, the thickness of the cement concrete is _____

- a) 8 CM
- b) 4 CM
- c) 3 CM
- d) 6 CM

85. A roof with slope in two directions with a break in slope on each side is called as:

- a) Gambrel roof
- b) Gabel roof
- c) Skillion and Lean to
- d) French roof

86. The direct and indirect cost estimated by a contractor for bidding a project is Rs.160000 and Rs. 20000 respectively. If the markup applied is 10% of the bid price, the quoted price of the contractor is:

- a) Rs.216000
- b) Rs.196000
- c) Rs. 200000
- d) Rs. 190000

87. The PVCN range of paint for prime coat on metals is:
- a) 50-70
 - b) 25-40
 - c) 50-60
 - d) 55-60
88. Which of the following constructions is effective against both air-borne and structure-borne sounds?
- a) Timber floor floating construction
 - b) Use of resilient surface material
 - c) Timber floor with suspended ceiling and air space
 - d) Concrete floor floating construction
89. The echo will be detectable to a human ear in which of the following room dimension? Assume that the surfaces are not good absorbers.
- a) 4m x 5m
 - b) 18m x 4m
 - c) 10m x 3m
 - d) 12m x 12m
90. Maintenance Ratio in lighting calculation is defined as:
- a) The ratio of illumination under normal working conditions to the illumination when everything is clean.
 - b) The ratio of illumination under normal working conditions to the illumination when everything is dirty.
 - c) The cost of human labor to clean 1SqM of the surface
 - d) None of the above
91. Which of the following features of Indian temples resembles pylons of the Egyptian temples?
- a) Vimana
 - b) Shikara
 - c) Gopura
 - d) Antarala
92. Which of the following architectural structures is not a contribution of Sir Edwin Lutyen?
- a) Rashtrapati Bhavan
 - b) Parliament House
 - c) Hyderabad House
 - d) Connaught Place
93. What is another name of 'Gate of Magnificence, the highest gateway of India at Fatehpur Sikri built by Akbar?
- a) Teen Darwaza
 - b) Alai Darwaza
 - c) Buland Darwaza
 - d) India Gate

94. Service tax rate for architectural consultancy fees in India is:

- a) 5%
- b) 12%
- c) 18%
- d) 24%

95. Which of the following gives the highest sound absorption in a room?

- a) Rigid wall
- b) Rough ceiling
- c) Soft curtain
- d) Open window

96. The rafter that makes the closed triangular end of a pitched roof in timber is called:

- a) Jack rafter
- b) Valley rafter
- c) Common rafter
- d) Hip rafter

97. In case of a double roof of timber, which of the following statement is not correct?

- a) The rafter is supported on purlins
- b) The purlins is supported on end walls
- c) The batten is supported on rafters
- d) The purlin is supported on trusses

98. Trapezoidal footing is a:

- a) Column footing
- b) Combined footing
- c) Stepped footing
- d) Deep foundation

99. In pressure supply mains, water hammer pressure is reduced by providing:

- a) Sluice valves
- b) Air valves
- c) Pressure relief valves
- d) Suction Valve

100. Mostly used coagulant is:

- a) Chlorine
- b) Alum
- c) Lime
- d) Bleaching powder

101. Associate the plans in List I with the options in List II and choose the correct option from the codes given below:

List I	List II
A. City Development plan	1. PMGSY
B. Slum Free City Plan	2. JNNURM
C. Transport Network Plan	3. RAY
D. Disaster Management Plan	4. NDMA

Codes:

	A	B	C	D
a)	2	3	1	4
b)	3	2	1	4
c)	2	1	3	4
d)	1	3	2	4

102. Which of the following Mud wall construction is preferred in Earthquake prone zones?

- a) Adobe
- b) Wattle and Daub
- c) Stabilized mud block
- d) Rammed earth

103. Minimum height of habitable rooms is

- a) 2.5 m
- b) 2.75 m
- c) 1.5 m
- d) 2 m

104. What is the type of slab in which some part of cement is replaced with cheap light weight material?

- a) Collar slab
- b) Waffle slab
- c) Flat slabs
- d) Filler slab

105. Which of the following is a non-natural defect in wood?

- a) Chemical Stain
- b) Twisted fibre
- c) Upsets
- d) Conversion

106. Clerestory windows are high and vertically placed windows. They can be used to increase _____ when oriented towards the equator.

- a) Indirect gain
- b) Isolated gain
- c) Direct Solar gain
- d) Indirect heat gain

107. Increased height of the room gives better ventilation due to _____
- a) Venturi effect
 - b) Bernoulli's effect
 - c) Stack Effect
 - d) Light effect
108. Beaufort Scale is:
- a) Scale representing wind speed
 - b) Scale for measuring humidity
 - c) Scale for measuring earthquake
 - d) Scale measuring landslide
109. A Stair is to be provided for a residence with floor height of 3m. If the space available for the stair is 4m x 2.5m, what kind of stair you propose?
- a) Open-well
 - b) Bifurcated
 - c) Dog-legged
 - d) All the above
110. The joists in a Single Timber Floor is provided _____, while it is _____ in a Double Floor.
- a) across the span, along the span
 - b) along the span, across the span
 - c) across the span, across the span
 - d) along the span, along the span
111. Which of the Mughal Monuments marked a new beginning in the style of architecture of North India with the dome made of marble as its most remarkable feature?
- a) Badshahi Mosque
 - b) Bibi ka Maqbara
 - c) Humayun's Tomb
 - d) Taj Mahal
112. Takht Sri Damdama Sahib, one of the five takhts of Sikhs is situated in:
- a) Patiala
 - b) Talwandi Sabo
 - c) Amritsar
 - d) Jalandhar
113. Who was the first Punjabi writer to receive Jnanpith Award ?
- a) Amrita Pritam
 - b) Gurdial Singh
 - c) Surjit Paatan
 - d) Khushwant Singh

114. For how many years, a person of Indian origin must have been an ordinary resident of India before making application towards getting citizenship by registration?

- a) 10
- b) 8
- c) 5
- d) 7

115. Concrete and fiber glass are_____

- a) Composite materials
- b) Ceramic materials
- c) Polymers
- d) Semiconductors

116. The pH value of acidic medium is:

- a) More than 7
- b) Equal to 7
- c) More than 10
- d) Less than 7

117. Radiation therapy (Radiotherapy) is used for treatment of various types of cancers, and it is based on application of radiations. Which of the following radiations are mostly used for radiotherapy for cancer?

- a) Gamma radiations
- b) UV- radiations
- c) Microwave radiations
- d) Infrared radiations

118. In which of the following states the newly built state secretariat building was inaugurated in the last week of April, 2023?

- a) Odisha
- b) Andhra Pradesh
- c) Chhattisgarh
- d) Telangana

119. By which of the following Acts was the Governor General of Bengal designated as the Governor General of India?

- a) The Regulation Act of 1773
- b) The Pitt's India Act of 1784
- c) The Charter Act of 1793
- d) The Charter Act of 1833

120. Which of the following is a world famous beach for the 'Arribada' (arrival) of Olive Ridley Turtles in India?

- a) Gahirmatha Beach, Orissa
- b) Marina Beach, Chennai
- c) Gulf of Kutch, Gujarat
- d) Kovalam Beach, Kerala

SPACE FOR ROUGH WORK

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (July-2023) for Recruitment to the post of Assistant Architect (Group-A) in the Departments of Local Govt. & PWD, Government of Punjab

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Total Questions: 120

Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth

DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

Question Booklet Set
D
Booklet Series

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes out of 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black **ball point pen** to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has 21 pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages printed correctly and there are no blank pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet if issued for some reason should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is negative marking (1 mark for each question) for questions wrongly answered by the candidate.
10. Use of Electronic/Manual Calculator is prohibited.
11. The candidate MUST READ INSTRUCTIONS BEHIND THE OMR SHEET before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

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 - c) 5
 - d) 7
5. Concrete and fiber glass are_____
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- a) Gahirmatha Beach, Orissa
 - b) Marina Beach, Chennai
 - c) Gulf of Kutch, Gujarat
 - d) Kovalam Beach, Kerala
11. In a group of 30 people, 15 like coffee, 10 like tea, and 5 like both coffee and tea. How many people do not like either coffee or tea?
- a) 5
 - b) 10
 - c) 15
 - d) 20
12. A train travels from Station A to Station B at a speed of 60 km/h and returns from Station B to Station A at a speed of 45 km/h. What is the average speed of the train for the entire journey?
- a) 51.4 km/h
 - b) 50.3 km/h
 - c) 55 km/h
 - d) 48 km/h
13. In a classroom, there are 15 students sitting in a row. If the top 3 students with the highest scores are to be selected as the class representatives, how many different ways can this be done?
- a) 455
 - b) 336
 - c) 136
 - d) 90

14. C is the father-in-law of D, who is the mother of E, who is the son of B. How is B related to C?
- a) Husband
 - b) Son
 - c) Daughter
 - d) Brother
15. A person is standing at a point X. He walks 10 meters towards the east, turns left and walks 15 meters, turns right, and walks 20 meters, turns left and walks 30 meters, turns left again and walks 10 meters, and finally, turns right and walks 20 meters. In which direction is the person facing now?
- a) North
 - b) West
 - c) East
 - d) South
16. According to a military code, TATTOO is TATOOT and MAKEUP is KAMPUE. What is the code for GORGEOUS?
- a) SUOEGROG
 - b) GORGSUOE
 - c) GROGSUOE
 - d) GROGEOUS
17. If the ratio of the ages of two brothers is 5:7 and the sum of their ages is 60 years, what is the age of the younger brother?
- a) 20 years
 - b) 25 years
 - c) 30 years
 - d) 35 years
18. A clock gains 5 minutes every hour. If the clock is set to the correct time at 12:00 PM, what time will it show after 14 hours?
- a) 3:10 AM
 - b) 2:50 AM
 - c) 3:30 AM
 - d) 2:55 AM
19. What is the next number in the series: 1, 4, 27, 256, 3125, ?
- a) 46656
 - b) 16875
 - c) 7776
 - d) 15625
20. Select the most appropriate analogy from the choices given below:
- DETERIORATE : IMPROVE
- a) feckless: careless
 - b) evanescent: exigent
 - c) hope: hone
 - d) obstinate: tractable

21. 'ਸੱਤੁਰਿਆ-ਬਹੱਤਰਿਆ i kDk' ਦk nਰਥ ਹੈ:

- a) ਗਿਣਤੀ ਕਰਨੀ
- b) ਬਿਨਾਂ ਕਰਕੇ ਕਿਤੇ ਜਕਣk
- c) ਬੁਢੇਪk ਆਉਣk
- d) nਕਲ ਮਕਰੀ ਜਕਣੀ

22. ਉਪਕਕਰ, ਉਪਯੋਗ, ਉਪਨਕਮ ਸ਼ਬਦਾਂ ਵਿੱਚ ਕਿਹੜk nਗੇਤਰ ਵਰਤਿਆ ਗਿਆ ਹੈ:

- a) ਉ
- b) ਉਪ
- c) ਉਪk
- d) ਓ

23. 'ਸਕਡੀnK ਕੋਠੀnK ਬਹੁਤ ਵੱਡੀnK ਹਨ।' ਦk ਵਚਨ ਬਦਲੇ:

- a) ਮੇਰੀ ਕੋਠੀ ਬਹੁਤ ਵੱਡੀnK ਹਨ।
- b) ਸਕਡੀnK ਕੋਠੀnK ਬਹੁਤ ਵੱਡੀ ਹੈ।
- c) ਮੇਰੀ ਕੋਠੀnK ਬਹੁਤ ਵੱਡੀnK ਹੈ।
- d) ਮੇਰੀ ਕੋਠੀ ਬਹੁਤ ਵੱਡੀ ਹੈ।

24. nzਗਰੇਜ਼ੀ ਦੇ ਜੂਨ-ਜੁਲkਈ ਮਹੀਨੇ ਵਿੱਚ ਕਿਹੜk ਦੇਸੀ ਮਹੀਨk ਆਉਂਦk ਹੈ?

- a) ਸਕਵਣ
- b) ਜੇਠ
- c) ਹਕੜ੍ਹ
- d) ਵਸਕਖ

25. ਰਚਨk ਦੁਆਬ ਕਿਹੜੇ ਦਰਿਆਵਾਂ ਵਿਚਕਕਰ ਦk ਇਲਕਕ ਹੈ?

- a) ਚਨਕਬ-ਜੇਹਲਮ
- b) ਚਨਕਬ-ਰਕਵੀ
- c) ਰਕਵੀ-ਬਿਆਸ
- d) ਬਿਆਸ-ਚਨਕਬ

26. 'qokV' dw ivroDwrQk Sbd hY
 a) m`J b) s`jr c) aUTxI d) srdI

27. j/m fb fynK ftu'A fejVk ;a[ZX gzikph ;apd o{g j? <
 a) gvWf b) guAWf c) guAWF d) guAwf

28. 'It has been drizzling since morning' dw pMjwbI rUp hY:

- a) svyr qoN bMUdw-bWdI ho rhI hY[
- b) svyr qoN mINh pY irhw hY[
- c) svyr qoN hvw c`l rhI hY[
- d) svyr qoN gVHy pY rhy hn[

29. ਹੇਠ ਲਿਖੇ ਸ਼ਬਦਾਂ ਵਿੱਚੋਂ 'ਉੱਲੂ' ਦਾ ਇਸਤਰੀ ਲਿੰਗ ਚੁਣੋ:

- a) ਉੱਲੂ b) ਉੱਲਈ
- c) ਬਟੋਰ d) ਬਤੋਰੀ

30. 'ਸੰਗ' ਦਾ ਇਕ ਨਰਥ ਹੈ 'ਸਰਮ' ਨਤੇ ਦੂਜਾ ਨਰਥ ਹੈ:

- a) ਸਕਥ b) ਹਕਲ
- c) ਕੱਚਕ d) ਨਤਗ

31. World's first bronze sculpture was found in:

- a) Harappa
- b) Mohenjodaro
- c) Lothal
- d) Rakhigarhi

32. Gopuram is an element of:

- a) Dravidian Architecture
- b) Indo-Aryan Architecture
- c) Jain Temple Architecture
- d) Rock Cut Temple Architecture

33. Shaking minarets are located in:

- a) Ahmedabad
- b) Agra
- c) Jaipur
- d) Hyderabad

34. An inclined section through a Cone will be seen as:
- a) Hexagon
 - b) Hyperbola
 - c) Spiral
 - d) Ellipse
35. How many faces does a Dodecahedron has?
- a) 12
 - b) 20
 - c) 30
 - d) 8
36. What is the minimum slope for climbing a ramp using wheelchair ?
- a) 1:8
 - b) 1:10
 - c) 1:12
 - d) 1:14
37. What is the minimum height of bathroom as per NBC?
- a) 2.2 m
 - b) 2.8 m
 - c) 2.75 m
 - d) 2.4 m
38. What does the Horizon line in a perspective represent?
- a) Height of the object
 - b) Eye level of observer
 - c) Distance from Picture plane
 - d) Cone of Vision
39. What are the stones or bricks at the corner of a building called?
- a) Jamb
 - b) Course
 - c) Quoin
 - d) Rebate
40. What is the percentage of Carbon in structural steel?
- a) 5 to 8 %
 - b) > 18 %
 - c) 1 to 2 %
 - d) < 0.5 %
41. Which term is used for Heating and slow Cooling of metals?
- a) Tempering
 - b) Annealing
 - c) Hardening
 - d) Melting

42. Which defect of timber occurs between or through annual growth rings?
- a) Knot
 - b) Shake
 - c) Decay
 - d) Split
43. Which truss is most suitable for glare free lighting in workshops?
- a) North light truss
 - b) King post truss
 - c) Fink truss
 - d) Warren Truss
44. Lancet Arch is also called _____ arch?
- a) Draped arch
 - b) Ogee arch
 - c) Acute arch
 - d) Multifoil arch
45. Silica, Charcoal and gypsum is used in paints as a _____
- a) Plasticizer
 - b) Inert filler
 - c) Antiskinning agent
 - d) Thinner
46. Which is a mode of failure in a structural member?
- a) Buckling
 - b) Compression
 - c) Torsion
 - d) Equilibrium
47. Which of the following is a criterion for design of Storm water drainage?
- a) Catchment Area
 - b) Population of a City/ town
 - c) Number of cloudy days
 - d) Solar irradiance
48. The acceptable noise level in Hospital corresponds to which of the following?
- a) 10-15 dB
 - b) 35-40 dB
 - c) 60-65 dB
 - d) 90-100 dB
49. Luminous intensity is expressed in which units?
- a) Watt
 - b) Lumens
 - c) Wall per metre
 - d) Candela

50. A residence has a terrace area of 50 m² and runoff coefficient of 0.5. For an average rainfall of 500 mm, the rainwater harvesting potential from terrace shall be ____m³?
- a) 1.25
 - b) 12.5
 - c) 125
 - d) 1250
51. Which of the following is a passive design feature?
- a) Solar Chimney
 - b) Air Cooler
 - c) Exhaust Fan
 - d) Air Conditioner
52. Which Green rating system is followed in United Kingdom?
- a) CASBEE
 - b) GRIHA
 - c) BREEAM
 - d) Green Mark
53. Calculate the maximum number of 100 sq. m. apartments that can be constructed on a 1-hectare plot, having ground coverage of 40 percent and an FAR of 1.5
- a) 100
 - b) 60
 - c) 200
 - d) 150
54. A Smart City DOES NOT include which among the following?
- a) Information and Communication Technology
 - b) Management Information System
 - c) Surveillance System
 - d) Urban Heat Index
55. What has replaced the Planning Commission in 2017?
- a) Ayushman Bharat Yojna
 - b) Valmiki Ambedkar Awas Yojna
 - c) Two Million Housing Programme
 - d) NITI Aayog
56. Meditation space, Hill, Pond, Zen, Curved elements and use of Symbolic features is a characteristic feature of _____ gardens.
- a) Mughal
 - b) English
 - c) Italian
 - d) Japanese

57. Which of the following is NOT an Adhesive?
- a) Epoxy Resin
 - b) Vinyl
 - c) Urea Formaldehyde
 - d) Phenyl Formaldehyde
58. An earthquake with a Richter Scale of 6.0 is classified as _____
- a) Strong
 - b) Mild
 - c) Little
 - d) Insignificant
59. The full form of AMRUT is _____
- a) Augmented Monuments for Recreation and Urban Transportation
 - b) Atal Mission for Recreation and Urban Transportation
 - c) Atal Mission for Rejuvenation and Urban Transformation
 - d) Associated Monuments for Recreation and Urban Transformation
60. Grade M-25 of concrete mix refers to:
- a) 1:2:4
 - b) 1:3:6
 - c) 1:1:3
 - d) 1:1:2
61. If the successful tender fails to submit the additional performance security within _____ no. of working days from the date of issue of letter of acceptance, his earnest money will be forfeited.
- a) 7
 - b) 15
 - c) 21
 - d) 28
62. Plans used to identify site in relation to town plan or other wider context are called:
- a) General location Plans
 - b) Site plans
 - c) Layout plans
 - d) Reflected Plan
63. India habitat center, New Delhi, was designed by:
- a) Charles Correa
 - b) Raj Rewal
 - c) Joseph Allen Stein
 - d) A. P. Kanvinde

64. In CMYK colour model, 'C' represents the colour:
- a) White
 - b) Black
 - c) Blue
 - d) Green
65. New parliament house , New Delhi, is designed by:
- a) Hafez contractor
 - b) Raj Rewal
 - c) Herbert Baker
 - d) Bimal Patel
66. Hoop and circumferential forces are associated with:
- a) Dome
 - b) Truss
 - c) Folded Plate
 - d) Cylinder
67. Recommended height for the wash basin as per barrier free norm is:
- a) 500 – 600 mm
 - b) 600 - 850 mm
 - c) 700 - 800 mm
 - d) 800 - 900 mm
68. The solar protection system consisting of fixed slates or grids outside a building façade in front of openings is known as:
- a) Solarium
 - b) Trombe Wall
 - c) Malqaf
 - d) Brise-soleil
69. Which of the following is the correct sequence from top to bottom for the elements used in the Entablature in ancient Greek Architecture?
- a) Cyma recta, Corona, Dentil, Frieze, Architrave
 - b) Corona, Cyma recta, Architrave, Frieze, Dentil
 - c) Architrave, Frieze, Corona, Dentil, Cyma recta
 - d) Dentil, Cyma recta, Corona, Frieze, Architrave
70. Which of the following is a temple having an apsidal plan?
- a) Lad Khan Temple, Aihole
 - b) Virupaksha Temple, Pattadakal
 - c) Brihadeshwara Temple, Tanjore
 - d) Papanatha Temple, Pattadakal

71. For a PERT activity, the optimistic time, the most likely time and pessimistic time are 1, 2 and 9 days respectively. The expected time for the activity(in days) is:
- a) 9
 - b) 6
 - c) 4
 - d) 3
72. Line up to which the plinth of a building adjoining a street may be law-fully extended is called:
- a) Building line
 - b) Building boundary
 - c) Building extend
 - d) Building plan
73. The raft slab is projected beyond the outer walls of the structure by:
- a) 5 to 10 cm
 - b) 15 to 20 cm
 - c) 25 to 30 cm
 - d) 30 to 45 cm
74. Which type of truss is characterized by multiple diagonal members forming a series of V-shapes?
- a) Warren truss
 - b) Pratt truss
 - c) K truss
 - d) Vierendeel truss
75. A property fetches a net income of Rs.1000/- deducting all outgoings. Workout the capitalized value of the property if the rate of interest is 5% per annum.
- a) Rs.5000
 - b) Rs.20000
 - c) Rs.10000
 - d) Rs.24000
76. According to National Building Code of India, Industrial buildings are categorized under which group of occupancy?
- a) Group G
 - b) Group E
 - c) Group F
 - d) Group H
77. The illumination level of a room is 350 lux and the efficacy of the lamps is 50. What will be the Light Power Density (LPD) of the room in Watt/m²?
- a) 5 Watt/ m²
 - b) 7 Watt/ m²
 - c) 10 Watt/ m²
 - d) 8 Watt/ m²

78. Find the reverberation time of a hall having dimensions 50m x 25m x 35m and having the absorption coefficient of 0.15.
- a) 1.8 sec
 - b) 2.8 sec
 - c) 3.8 sec
 - d) None of the above
79. When the load are reversing, the beam is designed as:
- a) Singly reinforced
 - b) Doubly reinforced
 - c) Over-reinforced
 - d) Cantilever beam
80. In planning for malls, the required public and toilet facilities shall be located not more than one storey above or below the space to be served with such facilities, and the path of travel to such facilities shall not exceed:
- a) 89 m
 - b) 90 m
 - c) 91 m
 - d) 92 m
81. A building with a green roof is an example of:
- a) Climate-responsive design in a hot and humid climate
 - b) Climate-responsive design in a cold climate
 - c) Climate-responsive design in a tropical climate
 - d) Climate-responsive design in an urban environment
82. As per National Building Code of India 2016, area for each equivalent car space inclusive of circulation area for open parking, ground floor covered parking and basement respectively is
- a) 22 sqm, 25 sqm, 30 sqm
 - b) 23 sqm, 28 sqm, 32 sqm
 - c) 20 sqm, 25 sqm, 30 sqm
 - d) 24 sqm, 28 sqm, 32 sqm
83. In Autodesk AutoCAD, when in absolute Cartesian coordinates have points A(10.8) and B(6.5), then to make a line from A to B with relative polar coordinates will write:
- a) @-5<36.88
 - b) @4<30
 - c) @5<216,88
 - d) @3<60

84. What type of mode of failure is seen if footing is resting on very dense sand, loaded by transient dynamic loads?

- a) Local Shear failure
- b) Transient Shear failure
- c) Punching Shear failure
- d) Flexural Failure

85. For signage, what should be the minimum height of letters in mm for a viewing distance of 12 m?

- a) 30
- b) 32
- c) 40
- d) 45

86. The modified form of old English cross bond which consists of alternative courses of headers and stretchers is known as:

- a) Raking bond
- b) Dutch bond
- c) Header bond
- d) Facing bond

87. Match List I (Pozzolana) with List II (Properties) and select the correct option from the codes given below:

List I		List II	
A	Iron oxide	1.	Prevent the flash setting of cement.
B	NaCl	2.	Provides strength to the cement.
C	Silica	3.	Accelerates the rate of setting of Plaster of Paris
D	Gypsum	4.	Gives colour to the cement.

Codes:

- | | | | | |
|----|---|---|---|---|
| | A | B | C | D |
| a) | 2 | 4 | 1 | 3 |
| b) | 4 | 3 | 2 | 1 |
| c) | 3 | 1 | 4 | 2 |
| d) | 1 | 2 | 3 | 4 |

88. Match the plants in List I with their prime uses in List II :

List I
A. Bignonia magnifica
B. Ixora chinensis
C. Cassia fistula
D. Wedelia trilobata

List II
1. Grass cover
2. Wall climbers
3. Topiary
4. Arboriculture

Codes:

	A	B	C	D
a)	4	1	2	3
b)	4	3	1	2
c)	2	3	4	1
d)	3	2	4	1

89. A casement window hung horizontally is called _____ window.

- a) Hopper
- b) Awning
- c) Pivot
- d) Transom

90. What is Postmodernism in architecture primarily defined as?

- a) A historical revival movement
- b) A reaction against modernism
- c) A formalist belief in function over form
- d) A style based around the use of modern materials

91. Interface of two ecological zones is termed as:

- a) Promontories
- b) Ecotone
- c) Biome
- d) Ecosystem

92. Match the Landscape designers listed in List I with their appropriate contribution from List II and choose the correct option from the codes given below:

List I
A. Lancelot Capability Brown
B. Andre le Notre
C. Joseph Paxton
D. Frederick Law Olmstead

List II
1. Kew gardens
2. Versailles garden
3. Central park
4. Crystal Palace

Codes:

	A	B	C	D
a)	3	1	4	2
b)	1	3	4	2
c)	1	2	3	4
d)	1	2	4	3

93. Hierarchy of courts, hierarchy of gates and zoomorphic forms are the features of which type of garden?
- a) Japanese
 - b) Mughal garden
 - c) Chinese garden
 - d) English garden
94. In horizontal DPC, the thickness of the cement concrete is _____
- a) 8 CM
 - b) 4 CM
 - c) 3 CM
 - d) 6 CM
95. A roof with slope in two directions with a break in slope on each side is called as:
- a) Gambrel roof
 - b) Gabel roof
 - c) Skillion and Lean to
 - d) French roof
96. The direct and indirect cost estimated by a contractor for bidding a project is Rs.160000 and Rs. 20000 respectively. If the markup applied is 10% of the bid price, the quoted price of the contractor is:
- a) Rs.216000
 - b) Rs.196000
 - c) Rs. 200000
 - d) Rs. 190000
97. The PVCN range of paint for prime coat on metals is:
- a) 50-70
 - b) 25-40
 - c) 50-60
 - d) 55-60
98. Which of the following constructions is effective against both air-borne and structure-borne sounds?
- a) Timber floor floating construction
 - b) Use of resilient surface material
 - c) Timber floor with suspended ceiling and air space
 - d) Concrete floor floating construction
99. The echo will be detectable to a human ear in which of the following room dimension? Assume that the surfaces are not good absorbers.
- a) 4m x 5m
 - b) 18m x 4m
 - c) 10m x 3m
 - d) 12m x 12m

100. Maintenance Ratio in lighting calculation is defined as:
- a) The ratio of illumination under normal working conditions to the illumination when everything is clean.
 - b) The ratio of illumination under normal working conditions to the illumination when everything is dirty.
 - c) The cost of human labor to clean 1SqM of the surface
 - d) None of the above
101. Which of the following features of Indian temples resembles pylons of the Egyptian temples?
- a) Vimana
 - b) Shikara
 - c) Gopura
 - d) Antarala
102. Which of the following architectural structures is not a contribution of Sir Edwin Lutyen?
- a) Rashtrapati Bhavan
 - b) Parliament House
 - c) Hyderabad House
 - d) Connaught Place
103. What is another name of 'Gate of Magnificence, the highest gateway of India at Fatehpur Sikri built by Akbar?
- a) Teen Darwaza
 - b) Alai Darwaza
 - c) Buland Darwaza
 - d) India Gate
104. Service tax rate for architectural consultancy fees in India is:
- a) 5%
 - b) 12%
 - c) 18%
 - d) 24%
105. Which of the following gives the highest sound absorption in a room?
- a) Rigid wall
 - b) Rough ceiling
 - c) Soft curtain
 - d) Open window
106. The rafter that makes the closed triangular end of a pitched roof in timber is called:
- a) Jack rafter
 - b) Valley rafter
 - c) Common rafter
 - d) Hip rafter

107. In case of a double roof of timber, which of the following statement is not correct?

- a) The rafter is supported on purlins
- b) The purlins is supported on end walls
- c) The batten is supported on rafters
- d) The purlin is supported on trusses

108. Trapezoidal footing is a:

- a) Column footing
- b) Combined footing
- c) Stepped footing
- d) Deep foundation

109. In pressure supply mains, water hammer pressure is reduced by providing:

- a) Sluice valves
- b) Air valves
- c) Pressure relief valves
- d) Suction Valve

110. Mostly used coagulant is:

- a) Chlorine
- b) Alum
- c) Lime
- d) Bleaching powder

111. Associate the plans in List I with the options in List II and choose the correct option from the codes given below:

List I	List II
A. City Development plan	1. PMGSY
B. Slum Free City Plan	2. JNNURM
C. Transport Network Plan	3. RAY
D. Disaster Management Plan	4. NDMA

Codes:

	A	B	C	D
a)	2	3	1	4
b)	3	2	1	4
c)	2	1	3	4
d)	1	3	2	4

112. Which of the following Mud wall construction is preferred in Earthquake prone zones?

- a) Adobe
- b) Wattle and Daub
- c) Stabilized mud block
- d) Rammed earth

113. Minimum height of habitable rooms is
- a) 2.5 m
 - b) 2.75 m
 - c) 1.5 m
 - d) 2 m
114. What is the type of slab in which some part of cement is replaced with cheap light weight material?
- a) Collar slab
 - b) Waffle slab
 - c) Flat slabs
 - d) Filler slab
115. Which of the following is a non-natural defect in wood?
- a) Chemical Stain
 - b) Twisted fibre
 - c) Upsets
 - d) Conversion
116. Clerestory windows are high and vertically placed windows. They can be used to increase _____ when oriented towards the equator.
- a) Indirect gain
 - b) Isolated gain
 - c) Direct Solar gain
 - d) Indirect heat gain
117. Increased height of the room gives better ventilation due to _____
- a) Venturi effect
 - b) Bernoulli's effect
 - c) Stack Effect
 - d) Light effect
118. Beaufort Scale is:
- a) Scale representing wind speed
 - b) Scale for measuring humidity
 - c) Scale for measuring earthquake
 - d) Scale measuring landslide

119. A Stair is to be provided for a residence with floor height of 3m. If the space available for the stair is 4m x 2.5m, what kind of stair you propose?

- a) Open-well
- b) Bifurcated
- c) Dog-legged
- d) All the above

120. The joists in a Single Timber Floor is provided _____, while it is _____ in a Double Floor.

- a) across the span, along the span
- b) along the span, across the span
- c) across the span, across the span
- d) along the span, along the span

SPACE FOR ROUGH WORK