



Punjab Technical University

Maximum Marks: 90

Time: 90Mins.

Entrance Test for Enrollment in Ph.D Programme

Important Instructions

- Fill all the information in various columns, in Capital letters, with blue/black point pen for attempting the questions
- Use of calculators is not allowed.
- Make attempt by writing the answer in capital Letters in the box against each question number.
- All questions are compulsory. Each Question has only one right answer. No Negative marking for wrong answers.
- Questions attempted with two or more options/answers will not be evaluated.

Stream: ARCHITECTURE AND PLANNING ...
Discipline ARCHITECTURE AND PLANNING....
Name
Fathers Name
Roll Number Date: 13-07-2014
Signature of Candidate:
Signature of Invigilator

Q 1 For Promoting Rural Area Development, concept of PURA was given by:

- A. Mahatma Gandhi
- B. Dr. Manmohan Singh
- C. Pt. Jawaharlal Nehru
- D. Dr. Abdul Kalam Azad

Q 2 Schedule twelve in the constitution relates to function of:

- A. Central Government
- B. Rural Panchayat
- C. Urban Local Bodies
- D. Development Authorities

Q 3 The ' Hagia Sophia ' is located in?

- A. Portugal
- B. Venice
- C. Istanbul
- D. Rome

Q 4 How many Metropolitan cities are there in the State of Punjab:

- A. 3
- B. 2
- C. 1
- D. none

Q 5 The Punjab Periphery Control Act envisages the extent of Periphery around Chandigarh to.

- A. 12 kms.
- B. 08 kms.
- C. 10 kms.
- D. 16 kms.

Q 6 Who was First hired by govt. of Punjab to prepare the Master Plan of Chandigarh :

- A. Albert Mayer
- B. Le- Corbusier
- C. Doxiadis Constantine
- D. Frank Lloyd Wright

Q7. The plan of Colosseum is _____ in shape.

- A. Circular
- B. Octagonal
- C. Rectangular
- D. Elliptical

Q8. Term "Entasis" is associated with

- A. Roman Architecture
- B. Indian architecture
- C. Greek Architecture
- D. Chinese Architecture

- Q9. A Ring encircling the base of a dome to contain the outward components of the Meridional forces is called
- A. Meridional ring
 - B. Hoop iron
 - C. Tension Ring
 - D. Great Circle
- Q10 The principle of Solid Waste Management involves
- A. Reproduce, Reuse , Recycle.
 - B. Recycle, Replenish, Reuse
 - C. Reduce, Reuse, Reproduce.
 - D. Reduce, Reuse, Recycle.
- Q11 The Dark brown organic compound formed in the soil due to partial or complete decomposition of vegetable matter is:
- A. Loam
 - B. Texture
 - C. Humus
 - D. Mulch
- Q12 Outer Profile of the most Byzantine churches are:
- A. Circular
 - B. Cross
 - C. Rectangular
 - D. Square
- Q13 GRIHA is a rating system given by:
- A. Bureau of Energy efficiency
 - B. Ministry of Power
 - C. The Energy Research Institute
 - D. Ministry of Urban And Rural Development
- Q14 Flying Buttress is associated with:
- A. Indian Architecture
 - B. Gothic Architecture
 - C. Greek Architecture
 - D. Roman Architecture

- Q15 A system of art-appreciation characterized by an unorthodox experimental approach to appreciate visual, literary and musical aspects of design process is called
- A. Avant-garde.
 - B. Post- modernism.
 - C. Neo-impressionism.
 - D. Proto-Deconstruction.
- Q16 An applied science of design concerning universal human characters and configurations aiming at effective utility and safety is called
- A. Anthropometry.
 - B. Cognitive behavioral mapping.
 - C. Universal design.
 - D. Ergonomics.
- Q17 The international guideline for conservation of monuments and sites recommended by ICOMOS is known as
- A. Venice Charter
 - B. Amsterdam Declaration
 - C. Granada Convention
 - D. Burra Charter
- Q18 The difference between an axonometric projection and isometric projection of an object with respect to a picture plane is in terms of
- A. Foreshortened angular measurements in the three principal axes.
 - B. Height of breadth of cross- sectional views generated by the picture plane.
 - C. Measurements in the angle of faces with respect to the aspect ratio.
 - D. Obliqueness in projection of faces of object on the vertical plane.
- Q19 The National Gallery, Chennai designed as Victoria Memorial Hall draws inspiration from which Mughal Master Piece ?
- A. Humayun's tomb
 - B. Punch Mahal
 - C. Buland Darwaza
 - D. Tomb of Ghiyas- ud- din Tughlaq
- Q20 Plans of Mohenjodaro and Medieval Jaipur are based on :
- A. Grid pattern and sectoral allocation of zoning.
 - B. Radial pattern and grid allocation of zoning.
 - C. Clustered pattern and segregated allocation of zoning.

D. Centralized pattern and composite allocation of zoning.

Q21 Computer modeling that represents the form of a three- dimensional object by specifying the vertices and edges of all mathematically continuous surfaces, including opposite sides is called:

- A. Surface modeling
- B. Wireframe modeling
- C. Solid modeling
- D. Building information modeling

Q 22 ECBC stand for

- A) Energy Consumption Base Code
- B) Energy Conservation Building Code
- C) Energy Consumption Balloon Code
- D) Energy Conversation Bureau Code

Q23 “The Modular” is based on the following?

- i. The Golden Section
- ii. The functional dimensions
- iii. The Fibonacci Series
- iv. The Ken

- A. i, ii, iii, iv
- B. ii, iii, iv
- C. i, ii, iii
- D. i, ii, iv

Q24 Which of the following is not an example of depressed base plane?

- A. Theatre at Epidauros
- B. Step Well at Abaneri
- C. The Acropolis
- D. Rock cut Churches of Lalibela

Q 25 Which of the following is the world’s first large scale monument in stone?

- A. Pyramid at Meydum
- B. South Pyramid of Seneferu
- C. Step Pyramid of Zoser
- D. Pyramid of Chephren

Q26 The Classic Greek Orders reflect the

- A. Geographic divisions of the Greek world at that time
- B. Political divisions of the Greek world at that time
- C. Climatic divisions of the Greek world at that time
- D. Linguistic divisions of the Greek world at that time

Q 27 Match the following Architectural Styles

- | | |
|--------------|-------------------|
| i. Buddhist | a. Hypostyle Hall |
| ii. Roman | b. Chaitya hall |
| iii. Greek | c. Triumphal Arch |
| iv. Egyptian | d. Parthenon, |

- A. i-b, ii-c , iii-d, iv-a
- B. i-a, ii-b, iii-c, iv-d
- C. i-d, ii-a, iii-b, iv-c
- D. i-c, ii-d, iii-a, iv-b

Q 28 Architectural projects designed by Laurie Baker are generally characterized by

- P. Appropriate technology
- Q. Human scale
- R. Interpretation of nine – square model
- S. Use of locally available materials

(A) P.R.S (B) P,Q,S (C) Q,R,S (D) P,Q,R

Q 29 Which states form part of National Capital Region :

- A. Rajasthan, UP, MP, Haryana.
- B. Delhi, UP, Rajasthan, Haryana.
- C. Delhi, Haryana, UP, Punjab.
- D. Delhi, Haryana, Rajasthan, Punjab.

Q 30 Author of the Garden City concept - Ebenezer Howard was :

- A. Engineer
- B. Stenographer
- C. Architect
- D. Geographer

Q 31 Master Plan In The State of Punjab are prepared under which law :

- A. Town Improvement Act 1922
- B. Punjab Municipal Corporation Act 1976

- C. Punjab Scheduled Roads And Control Area Restriction On Unregulated Development Act 1963
- D. Punjab Regional And Town Planning And Development Act 1995

Q 32 Which density has the lowest numerical Value :

- A. Gross density
- B. Net density
- C. Overall density
- D. Town density

Q33 Which of the following is NOT considered as a factor for defining Urban area by Census of India:

- A. Density of Population
- B. Population
- C. Area of Settlement
- D. Percentage of male working population engaged in activities other than agriculture

Q 34 Metropolitan Planning committees and District Planning committees are product of :

- A. National Commission of Urbanization
- B. National Housing and Habited Policy
- C. Jawaharlal Nehru National Urban Renewal Mission
- D. 74th & 74th constitutional Amendment Act

Q 35 A Plot for a group Housing in Ludhiana Measures 400mts x 600mts. Permissible Ground Coverage is 30% and FAR is 3.0, What are maximum number of floors that can be built :

- A. 8
- B. 7
- C. 10
- D. 9

Q 36 Who has authored the book 'Three Human Establishment'

- A. Walter Groupius
- B. Le-Cobusier
- C. Pettric Geddes
- D. John Nash
- E.

- Q 37 Grid Iron and Neighborhood concept have been used in the planning of :
- A. New Delhi
 - B. Chandigarh
 - C. Ludhiana
 - D. Gandhi Nagar
- Q 38 Rapid Urbanization creates problems except :
- A. High consumption of resources
 - B. Increased slums
 - C. Higher densities and pollution
 - D. Increased Rainfall
- Q 39 Pattern of Development which meets the need of the present generation without compromising the ability of future generation to meet their needs is called:
- A. Integrated Development
 - B. Overall Development
 - C. Sustainable Development
 - D. Inclusive Development
- Q 40 Which plan you will refer to find information about the 'Use of Land' and 'Building Controls' of a site:
- A. Master plan
 - B. Zonal plan
 - C. Demarcation plan
 - D. Zoning plan
- Q 41 If in a Country with population placed at 983 million people. 397 million people live in rural areas, what will be the level of urbanization:
- A. 56.32%
 - B. 59.61%
 - C. 58.45%
 - D. 40.39%
- Q 42 Which Cities were laid on the pattern of roads involving 'CARDO' and 'DECUMANUS' as the major axis:
- A. Greek Cities
 - B. Roman Cities
 - C. Egyptian Cities
 - D. Indus valley Cities

Q 43 Which category of land use in percentage terms increases with the decrease in size of the Town / City :

- A. Institutional
- B. Roads and open spaces
- C. Commercial
- D. Residential

Q44 An automated system for the capture, storage, retrieval, analysis, and display of spatial data is known as

- a. GPS
- b. Remote sensing
- c. GIS
- d. None of the above

Q 45 Capitol Complex of Chandigarh is located in :

- A. Sector - 22
- B. Sector - 3
- C. Sector - 1
- D. Sector -17

Q 46 Which mode of transportation makes highest contribution to Indian Gross Domestic Product :

- A. Water Transportation
- B. Road Transportation
- C. Air Transportation
- D. Railways

Q 47 Which Indian Metropolis has the Largest Count of Registered Motor Vehicles :

- A. Mumbai
- B. Kolkata
- C. Delhi
- D. Bangalore

Q 48 Propose a preferred order of mobility for a City to make it Environment Friendly and Sustainable with highest rank going to the best mode:

- i. Car
- ii. Public transport
- iii. Pedestrian
- iv. Cycle

A. i,iii,iv,ii, B.iv,ii,iii,i, C. iii,iv,ii,i, D. ii,iii,iv,i

Q 49 Which are the factors which promotes Migration:

- A. Poverty
- B. Unemployment
- C. Lack of Personal Freedom
- D. All The Above

Q 50 Which Built form is best suited to promote 'Cost Effectiveness' and 'Energy Conservation':

- A. Low Rise High Density
- B. High Rise Low Density
- C. Low Rise Low Density
- D. High Rise High Density

Q 51 Metro as a mode of travel helps in :

- A. Reduced Load On Road Transport
- B. Improves Relatives Speed
- C. Improves Quality Of Environment
- D. All The Above

Q 52 . Match the following :

Group 1

- P. Concept of City Industrelle
- Q. City of 3 Million
- R. Garden City
- S. Broad Acre City

Group 2

- 1. Le- Corbusier
- 2. Tony Garnier
- 3. Frank lloyd Wright
- 4. Ebenezer Howar

- A. P-4,Q- 3,R-1,S-2,
- B. P-3,Q-2,R-3,S-1,
- C. P-2, Q-1,R-4,S-3,
- D. P-1,Q-4,R-2,S-4,

Q 53 'Hippodamus' Father of Greek Town Planning was by profession :

- A. Engineer
- B. Lawyer
- C. Architect
- D. City planner

- Q 54 After the Great fire and plague in 17th Century Master Plan of London was prepared by :
- A. John Gwynn
 - B. Christopher Wren
 - C. Richard Rogers
 - D. Baron Haussmann
- Q 55 Which Indian state has the highest number of slum dwellers :
- A. Uttar Pradesh
 - B. Andhra Pradesh
 - C. West Bengal
 - D. Maharashtra
- Q 56 Shape of the city evolved by a Large Circle with Radial Corridors of Intense development emanating from the Center is known as :
- A. Star
 - B. Ring
 - C. Radio Centric
 - D. Constellation
- Q 57 Which scheme focuses on Slum Dwellers and Urban Pools :
- A. Indira Awas Yojna
 - B. JNNURAM
 - C. Rajiv Awas Yojna
 - D. NRHM
- Q 58 Concept of Developing 100 smart cities in the country has been promoted by "
- A. Institute of Town Planners
 - B. National Commission on Urbanization
 - C. Congress Party
 - D. Bhartiya Janta Party
- Q 59 Mill Owner's Association Building in Ahmedabad is designed by
- A. Louis Kahn
 - B. Raj Rewal
 - C. Le Corbusier
 - D. Charles Benninger

Q 60 A contour line is

- A. An imaginary line connecting points of equal elevation on ground
- B. an outline of land and buildings defined against the sky
- C. an imaginary line connecting the ridges and hilltops
- D. a hypothetical line from someone's eye to what is seen

Q61 By definition a GIS must include:

- A. A subsystem for data reporting
- B. A method for data storage, retrieval, and representation
- C. A method for storing demographic information
- D. A method for scanning maps to produce raster files

Q 62 The famous Dilwara Temple at Mount Abu is an example of

- A. Buddhist Temple Architecture
- B. Champa Temple Architecture
- C. Jain Temple Architecture
- D. Maru- Gurjara Temple Architecture

Q 63 Weep-hole refers to

- A. Holes made in timber to take out moisture
- B. a cavity in the ground caused by water erosion and providing a route for surface water to disappear underground
- C. a hole in a sill, retaining wall, or the like for draining off accumulated moisture, as from condensation or seepage
- D. rain water pipes connecting the upper terrace with the ground

Q 64 The Kyoto Protocol addresses the issue of

- A. Green house gases
- B. Water harvesting
- C. Deforestation
- D. Climate change

Q 65 In a professional practice, when there are disputes among the architects, clients and contractors regarding the building construction and contract, then to resolve the issue, the expert appointed for the same is termed as

- A. Solicitor
- B. Arbitrator
- C. Valuer

D. Lawyer

Q 66 The colours of the Indian National Flag from top to bottom are

- A) Green White Saffron
- B) Saffron Blue Green
- C) White Saffron Green
- D) Saffron White Green

Q 67 A figure whose two sides are parallel but not equal is

- A) A Rectangle
- B) A Square
- C) A Trapezium
- D) A Parallelogram

Q 68 The quantitative measure of the earthquake is called

- A) Intensity
- B) Magnitude
- C) Epicentre
- D) Aftershocks

Q 69 A gopuram is a:

- A) Hall of Pillars
- B) A Gateway
- C) A row of free standing columns
- D) None of the above

Q 70 Minimum size of Habitable Room is:

- A) 90 square feet
- B) 100 square feet
- C) 110 square feet
- D) 120 square feet

Q 71 Queen Necklace is the name given to

- A) Marine Drive Mumbai
- B) Chowringee Lane, Calcutta
- C) Ring Road, New Delhi
- D) JanMarg, Chandigarh

Q 72 Soldier is a brick laid

- A. Horizontally on the longer edge with the shorter end exposed
- B. Vertically with the longer face edge exposed
- C. Vertically with the broad face exposed
- D. Horizontally on the longer edge with the broad face exposed

Q 73 In a Byzantine church, narthex was occupied by

- A. Bishop
- B. Those not yet christened
- C. Choir
- D. Officiating clergy

Q 74 LEED is the internationally accepted rating system for

- A) Green buildings
- B) Fire resistant buildings
- C) Intelligent buildings
- D) Tall buildings.

Q 75 Layout of Mughal Gardens were influenced by

- A. Baroque Gardens
- B. Persian Gardens
- C. Gothic Gardens
- D. Renaissance Gardens

Q 76. Concepts of 'Transferable Development Right' and 'Accommodation Reservation' were introduced by which state:

- A. Punjab
- B. Gujarat
- C. Maharashtra
- D. Karnataka

Q 77. Who has authored the book 'Three Human Establishments':

- A. Walter Groupis
- B. Le- Corbusier
- C. Pettric Geddes
- D. John Nash

Q 78. Affordable housing is defined by combination of factors including:

- A. Income, Size of Dwelling Unit, Saving, Cost of Dwelling Unit,
- B. Expenditure, Size of Dwelling Unit, Family size, Cost of Dwelling Unit,
- C. Expenditure, Cost of Dwelling Unit, Family size, Size of Dwelling Unit
- D. Income, Family size, Saving, Size of Dwelling Unit

Q 79. The Concept of 'The Science of Human settlements called Ekistics' was authored by:

- A. Edward Benelt
- B. Lewis Mumford
- C. Constantine Doxiadis
- D. Frank Lloyd Wight

Q 80. Draft Chandigarh Master Plan 2031 has been prepared by Chandigarh administration:

- A. Under administrative orders
- B. Under an existing Law
- C. Under the direction of Court
- D. On People Demand

Q 81. Corbusier defined planning and development of Chandigarh into three stages, what was the stage three defined by him:

- A. Addition of Sector 48-56
- B. Urbanization of Periphery
- C. Extending Stage Two
- D. Re-densification of Stage One

Q 82. Rank the order and hierarchy of human activities defined by Le-Corbusier in his book 'The

Radiant City' with highest ranking going to the first priority:

- I. Working
- II. Travelling
- III. Living
- IV. Culture of body and spirit

- A. III,I,IV,II B. I,II,IV,III C. II,III,I,IV, D. IV,III,II,I

Q 83. Who is the author of the book 'Tomorrow A Peactul Path to social Reforms'

- A. Camillo Silte
- B. Ebnezer Howard
- C. Soria Y Mata

D. Tony Garnier

Q 84. Red burn idea of neighborhood planning by Clarence Perry is based on the road pattern defined by:

- A. Grid Iron
- B. Ring and Radial
- C. Cul-de-sac
- D. Linear

Q 85. The greatest summary of thoughts contained in the book 'The City in History' belongs to:

- A. Buckminster Fuller
- B. Charles Abrams
- C. Constantine Doxiadis
- D. Lewis Mumford

Q 86. Mission cities covered under Jawaharlal Nehru National Urban Renewal Mission include:

- A. Metro Cities of 2001
- B. Capital Cities
- C. Important Cities of Country
- D. All the above

Q 87. Towns of Letchworth and Welwyn were designed on the concept of :

- A. Linear Cities
- B. Radial Cities
- C. Garden Cities
- D. Industrial Cities

Q 88. Central Park of New York City has been designed by:

- A. Frederick law Olmsted
- B. George Marsh
- C. Charles Eliot
- D. George Kessler

Q 89. How many State and local level development authorities has been setup under the Punjab Regional and Town planning and development Act, 1995:

- A. 5
- B. 6
- C. 7
- D. 4

Q 90. Match the following Capital Cities with their Planners:

P. Islamabad

Q. New Delhi

R. Gandhi Nagar

S. Brasilia

I. H.K. Mewada

II. Doxiadis

III. Edwin Lutyens

IV. Lucio Costa

A. P-II,Q-III,R-I,S-IV

B. P-I,Q-II, R-III, S-IV

C. P-III,Q-IV, R-II,S-I

D. P-IV,Q-I, R-II, S-III