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Que	stion Paper with Final (Revised) Answer Key for the Post of	Head Draughtsman	held on 22-07-2018
<u>Iter</u> Q1	ncode : HD1001 As per National Building Code, the minimum size of a ha	bitable room in m ² is:	
Α	11		
в	10.5		
с	9.5		
D	12		
Cor	Correct Ans: C		

	Itemcode : HD1002	
Q2	Q2: Who is the famous architect of buildings Sagrada familia and Casa mila?	
A	Peter Eisenman	
в	Daniel Libeskind	
С	Santiago Calatrava	
D	Antoni Gaudi	
Coi	Correct Ans: D	
74		

Iter	ncode : HD1003	
Q3:	The effective floor area available for use within a residential apartment, is known as	
A	Built-up Area	
в	Carpet Area	
с	Plinth Area	
D	Super Built-up Area	
Cor	Correct Ans: B	
	Itemcode : HD1004	
04	Captt Chart DOES NOT provide information about	

Q4	Gantt Chart DOES NOT provide information about	
A	Progress of Work	
в	Duration of Jobs	
С	Interdependency of Jobs	
D	None of the above	
Co	Correct Ans: C	

	Itemcode : HD1005 Q5: Identify which is NOT a green building rating system	
A	LEED	
в	CASBEE	
с	DAYSIM	
D	GRIHA	
Cor	Correct Ans: C	

Q6	Q6: AMRUT stands for:	
A	Atal Memorandum for Renewal and Urban Transformation	
в	Atal Mission for Rural and Urban Transformation	
с	Atal Mission for Renewal and Urban Transformation	
D	Atal Mission for Rejuvenation and Urban Transformation	
-	Atal Mission for Rejuvenation and Urban Transformation rrect Ans: D	

Q7:	As per URDPFI Guidelines 2014, urban design framework is suggested under the ambit of which plan?
Α	Urban Redevelopment Plan

B Zonal Development Plan

с Specific Purpose Plan

D Comprehensive Mobility Plan

Correct Ans: B

Itemcode : HD1008

- Q8: The correct arrangement of the height of towers given below in descending order is:
 - P. Burj Khalifa, Dubai
 - Q. Petronas Tower, Kuala Lumpur R. Taipei 101, Taiwan
 - S. Shanghai Tower

A P, Q, R, S

в P, Q, S, R

c P, R, S, Q

D P, S, Q, R

Correct Ans: D

Α в

С

Itemcode : HD1009 Q9: Volume of coarse aggregate in m³ present in 1.0 m³ of 1 : 1.5 : 3 concrete mix made by volume batching is: 0.5 to 0.6 1 4 to 4.5 **D** 2 to 3 Correct Ans: A

Itemcode : HD1010

Q10: The construction technique 'toothing' is used in:

Α Wood construction

в Brick masonry

С Steel construction

Reinforced cement concrete construction D

Correct Ans: B

	<u>Itemcode</u> : HD1011 Q11: Pritzker Architecture Prize 2018 has been awarded to:	
Α	Mario Botta	
в	Rem Koolhas	
с	B V Doshi	
D	Zaha Hadid	
Coi	Correct Ans: C	

	2: In AutoCAD, the maximum number of points which can be snapped in a circle using OSNAP command is
A	1
в	3
С	4
D	5
Correct Ans: D	

Q13: V1 to V7 concept given by Le Corbusier refers to

- B Housing Typologies
- c Built structure strength
- D Hierarchy of Roads

Correct Ans: D

Itemcode : HD1014

Q14: In escalators, the angle of inclination with the horizontal plane should be in the range of:

Α	5°-10°	
в	20°-30°	
с	30°-35°	
D	10°-15°	
Cor	Correct Ans: C	

Itemcode : HD1015

 Q15: As per the Census of India 2011, 'Metropolitan Urban Agglomeration' is a contiguous spread of several urban settlements where the minimum population size (in Lakh) is:

 A
 One

 B
 Two

 C
 Fifty

 D
 Ten

Correct Ans: ${\boldsymbol{\mathsf{D}}}$

	<u>Itemcode</u> : HD1016 Q16: BEES is an acronym for:	
A	Building for Environmental and Economic Sustainability	
в	Built Environment and Ecological Society	
С	Building for Energy and Environment Sustainability	
D	Built Environment and Engineering Services	
Cor	Correct Ans: A	

Itemcode : HD1017

Q17: Criteria for background noise (in NC) in hospitals and apartments is:

A	10 - 20
в	20 - 30
с	30 - 40
D	40 - 50
Cor	rrect Ans: B

	Itemcode : HD1018 Q18: 'Finger Plan' is an urban plan initially developed for which city?	
A	Canberra	
в	Bhubaneshwar	
с	Copenhagen	
D	Токуо	
Cor	rrect Ans: C	

Itemcode : HD1019

Q19: To prevent overturning, the element constructed at intervals along the length of a wall to stabilize it is known as:

A	Buttress
в	Barrel Vault
С	Squinch Arch
D	None of the above
Co	rrect Ans: A

Q20: Which of the following is NOT a spatial theory of land use planning?

A	Concentric Zone theory
в	Multiple Nuclei Theory
с	Centripetal Theory
D	Sector Theory
Cor	rrect Ans: C

Itemcode : HD1021

- **Q21:** Arrange the following in ascending order of width:
 - P. Collector Street
 - Q. Arterial Road
 - R. Local Street
 - S. Sub-Arterial Road

Α	P, Q, S, R
в	R, P, S, Q
С	Q, S, R, P
D	Q, S, P, R
Cor	rect Ans: B

Itemcode : HD1022

Q22: From the following cost components of a building construction project which is not a direct cost combination? P. Labour cost

- Q. Equipment cost
- R. Material cost
- S. Establishment cost
- T. Supervision cost

A	P and Q
в	Q and R
с	P and R
D	S and T
Cor	rrect Ans: D

Q2:	 The arithmetic average value of the sound absorption coefficient for a specific material and particular mounting condition for four frequencies is:
Α	Transmission coefficient
в	Noise reduction coefficient
С	Absorption coefficient
D	Reflection coefficient
Cor	rrect Ans: B
	ncode : HD1024 4: In how many days, complete compressive strength of concrete can be measured?

Q2	Q24: In how many days, complete compressive strength of concrete can be measured?	
A	14	
в	25	
с	28	

D 40 Correct Ans: C

Itemcode : HD1025

Co	whet Apple
D	Empire state building
с	Malaysian twin tower
в	Taipie 101
A	Burj Khalifa
Q2	25: A tuned mass damper, also known as a harmonic absorber, is a device mounted in structures to reduce the amplitude of mechanical vibrations is installed in which famous building?

Correct Ans: B

Itemcode : HD1026

Q26: Which of the following is not the shape of a girder?

Α	N Shape
в	Z Shape
с	I Shape
D	Box Shape
Cor	rect Ans: A

Itemcode : HD1027

 $\ensuremath{\textbf{Q27:}}$ Which among the following state has highest number of proposed Smart cities?

Α	Madhya Pradesh
в	Maharashtra
с	Gujarat
D	Uttar Pradesh
Cor	rect Ans: D

Itemcode : HD1028

Q28: Which is the oldest mountain range in India?

 A
 Himalayan Range

 B
 Aravalli Range

 C
 Western Ghats

 D
 Vindhya Range

 Correct Ans: B

-	Itemcode : HD1029 Q29: Which of the following order is part of Roman order, but not Greek order?	
Α	Doric	
в	Ionic	
с	Corinthian	
D	Composite	
Cor	rect Ans: D	

Q30: As per the National Building Code, the minimum width (in m) of a staircase flight in an educational building above 24 height should be:	
A	1.0
в	2.0
С	1.5
D	2.5

Correct Ans: B

Itemcode : HD1031

Q31: Oculus is the prominent feature of which of the following buildings?

A	Parthenon, Greece		
в	Temple of Zeus, Aizanoi		
с	Pantheon, Rome		
D	Garni Temple, Armenia		
Cor	Correct Ans: C		

Itemcode : HD1032

Q32: What does 'Cupola' Stands for in architecture?		
Α	Arches	
в	Domes	
С	Doorway	
D	Sanctum	
Correct Ans: B		

Itemcode : HD1033

	Q33: According to the Bureau of Indian Standards, how much is the average consumption of water for hospitals exceeding 100 beds?	
A	450 L/head/day	
в	350 L/head/day	
с	250 L/head/day	
D	150 L/head/day	
Correct Ans: A		

Iter	temcode : HD1034		
Q3	Q34: As per the Urban and Regional Development Plan Formulation and Implementation (URDPFI) guidelines, population of urban medium town on hilly area is:		
Α	5,000-20,000		
в	20,000-80,000		
с	80,000-1,50,000		
D	1,50,000-5,00,000		
Cor	Correct Ans: B		

Itemcode : HD1035

Q35: Which is of the following building is not the work of famous Architect Balkrishna Doshi:

A Sangath, Ahmedabad

- B IIM, Bangalore
- c Aranya low cost housing, Indore
- D Jawahar Kala Kendra, Jaipur

Correct Ans: D

	Itemcode : HD1036 Q36: Which of the following is not a Pritzker prize winner:		
A	Toyo Ito		
в	Rem Koolhas		
с	Le Corbusier		
D	Jean Nouvel		
Co	Correct Ans: C		

_	Itemcode : HD1037 Q37: Slenderness ration of a column is represented as:		
A	Effective length/Cross sectional area		
в	Effective length/Radius of gyration		
с	Actual length/Cross sectional area		
D	Actual length/Radius of gyration		
Cor	Correct Ans: B		

Q38: Identify the buildings:



A Habitat 67 and CCTV tower

B Habitat 67 and TV tower

c Common wealth housing and CCTV tower

D Common wealth housing and TV tower

Correct Ans: A

Itemcode : HD1039

	Q39: Flying buttresses were a part of Gothic Architecture for:	
Α	Supporting roofing	
в	Historic importance	
с	Aesthetic purpose	
D	None of the above	
Cor	Correct Ans: D	

Image: Implementation Q4: Which of the following is an example of Garden city? A Letchworth B Welwyn C Both D None Currect Ans: C

Itemcode : HD1041 Q41: Which of the following is not an example of Dravidian Architecture:		
A	Virupaksha Temple	
в	Meenakshi Temple	
с	Padmanabhaswamy Temple	
D	None of the above	
Correct Ans: D		

Q42: Which of the following is not a drafting software:

A	AutoCAD
в	Sketch up
с	Revit
D	Erdas IMAGINE
Correct Ans: D	

Itemcode : HD1043 Q43: In architecture, BIM stands for: A Building Informative Model B Built Interior Model C Building Information Modelling D None of the above Correct Ans: C

Itemcode : HD1044

Q44: Which of the following is NOT a criteria for defining urban areas:

- A Population size
- B Percentage of pucca houses
- **c** Density of population

D Percentage of male working population engaged in non-agricultural activities

Correct Ans: B

Itemcode : HD1045

Q45: The ideal cross-section of a combined sewerage system for significant variation in flow is:

A	Circular	
в	Semi-elliptical	
с	Egg-shaped	
D	Horse-shoe shaped	
Correct Ans: C		

Itemcode : HD1046

Q46: Name the author of the book titled 'Garden Cities of Tomorrow'

A Christopher Alexander

- B Patrick Geddes
- c Lewis Mumford
- D John Ruskin

Correct Ans: S (S Denotes question scrapped and weight-age to all)

Q4	7: The National Aptitude Test in Architecture (NATA) is being conducted by the:
A	Council of Architecture
в	Indian Architects Association
с	AIEEE
D	IIT
Correct Ans: A	

<u>Ite</u> Q4	m <u>code</u> : HD1048 8: Who is known as the "master builder" of mid-20th New York City?
A	Jane Jacobs
в	Robert Moses
С	Oscar Niemeyer

D Frei Otto

Correct Ans: B

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Itemcode : HD1049 Q49: What does PERT stand for?	
A	Program Evaluation and Revision Technique
в	Progress Evaluation and Revision Technique
с	Programme Evaluation and Review Technique
D	Proposal for Environment and Review Technique
Correct Ans: C	

	Itemcode : HD1050 Q50: What is Lumion 3D?	
A	Rendering tool	
в	Drafting tool	
с	Energy management tool	
D	None of the above	
Correct Ans: A		

Iter	<u>mcode</u> : HD1051	
Q5	Q51: The latest National Building Code of India has been revised in which year?	
Α	2011	
в	2016	
с	2015	
D	2018	
Cor	Correct Ans: B	

	temcode : HD1052 252: The original fan-shaped Master Plan for Chandigarh was given by:	
A	Ebenezer Howard	
в	Jane Drew	
С	Otto H. Koenigsbrger	
D	Albert Mayer	
Cor	Correct Ans: D	

	Q53: For architectural anthropometry studies, the average male height for India is:	
A	160 cm	
в	175 cm	
с	165 cm	
D	162 cm	
Correct Ans: C		

Itemcode : HD1054 Q54: The creep strains are:		
A	Caused due to dead loads only	
в	Caused due to live loads only	
с	Caused due to cyclic loads only	
D	Independent of loads	
Correct Ans: A		

Itemcode : HD1055		
Q5!	5: The National Building Code of India does not cover:	
A	Structural Design	
в	Building Services	
D		
С	Plumbing Services	
D	None of the above	
Cor	rrect Ans: D	
Itemcode : HD1056		
Q5(6: Shear force on a cantilever beam is:	

Α	Sum of vertical forces acting on a particular section of the beam
в	Sum of horizontal forces acting on a particular section of the beam
с	Sum of horizontal and vertical forces acting on a particular section of the beam
D	None of the above
Correct Ans: A	

Q57: The Council of Architecture has been constituted by the Government of India under the provisions of the Architects Act passed in:

A	1982
в	1972
с	1992
D	1962
Correct Ans: B	

	Itemcode : HD1058 Q58: A triforium refers to:	
Α	Vault	
в	Shallow Arched gallery	
с	Boundary wall	
D	Church	
Correct Ans: B		

Itemcode : HD1059

Q59: As per NBC 2005, the area prescribed for equivalent car space (inclusive of circulation area) for ground floor covered parkir is:		
Α	23sq m	
в	25sq m	
С	28sq m	
D	32sq m	
Correct Ans: C		

Itemcode : HD1060 Q60: If the Young's modulus of elasticity of a material is twice its modulus of rigidity, then Poisson's ratio of material is: A -1 B -0.5 C 0.5 D zero Correct Ans: D

Itemcode : HD1061

 $\label{eq:Q61: Constraint} \textbf{Q61:} \quad \mbox{The reverberation time depends on which of the following variables:}$

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Α	Volume of room
в	Absorption coefficient
С	Surface area of the room
D	All of the above
Correct Ans: D	

Q62: In Census 2011, which is the largest State in India (in area)?

A	Maharashtra
в	Madhya Pradesh
с	Rajasthan
D	Uttar Pradesh
Correct Ans: C	

	emcode : HD1063 53: Hearing range is:	
	20Hz to 20 kHz	
в	2Hz to 20 MHz	
с	200Hz to 200MHz	
D	Infinitely wide	
Cor	Correct Ans: A	

Itemcode : HD1064

Q6	Q64: A good brick when immersed in water bath for 24 hours, should not absorb water more than	
A	20% of its dry weight	
в	15% of its saturated weight	
С	10% of its saturated weight	
D	20% of its saturated weight	
Correct Ans: A		

	Itemcode : HD1065 Q65: The most suitable stone for building piers is:		
A Granite			
в	Limestone		
с	Sand Stone		
D	Marble		
Coi	Correct Ans: A		

Itemcode : HD1066		
Q66: Perspective plans are prepared by:		
A	City development block	
в	Central Planning Commission	
С	Metropolitan Planning committee	
D	Ward Committee	
Correct Ans: C		
Itemcode : HD1067		

Q67: Kandariya Mahadeva Temple is located in which city:
A Ujjain
B Khajuraho

с	Devas
D	Puri
Correct Ans: B	

	Itemcode : HD1068 Q68: LEED is known as :	
A	Leadership in Energy and Environmental Design	
в	Leadership in Efficiency and Electrical Design	
с	Loss in Efficiency and Electrical Design	
D	Lighting Efficiency and Energy Database	
Cor	Correct Ans: A	

Q69: For CFL Bulb the distribution of total energy is:

B 80% heat and 20% light

c 75% Heat and 25% light

D 90% Heat and 10% Light

Correct Ans: B

-	Itemcode : HD1070 Q70: While referring a grading plan, the following number (106.2) would refer to :	
A Prop	pposed contour at 106.2	
B Prop	posed spot elevation at 106.2	
c Exis	sting contour at 106.2	
D Exis	sting spot elevation at 106.2	

Correct Ans: D

Itemcode : HD1071

	Q7 1	Q71: Pumps based on type of power required:	
	A	Gasoline and steam engine pumps	
	в	Displacement and centrifugal pumps	
	с	Low lift and high life pumps	
	D	Deep well and boost pumps	
Ī	Correct Ans: A		

Itemcode : HD1072 Q72: The role of super-plasticizer in a cement paste is to:			
A	Disperse the particles		
в	Disperse the particles and to remove air bubbles		
с	Disperse the particles, remove air bubbles and to retard setting		
D	Retard setting		
Correct Ans: C			

 Itemcode
 HD1073

 Q73:
 Which of the following is not a renewable energy source:

A	Wind
в	Solar
с	Biomass
D	Natural gas

Correct Ans: D

	Itemcode : HD1074 Q74: Kevin Lynch suggested that users formed mental maps with five elements namely :		
A	Paths, edges, districts, nodes, landmarks		
в	Roads, bridges, stations, intersections, squares.		
с	Plants, trees, streets, vehicles, houses.		
D	Streets, museums, stations, intersections, signages.		
Correct Ans: A			

Itemcode : HD1075

Q75: Which represents the nearest limits of the future uncontrolled building activity in relation to road:

Α	Building line	
в	Kerb	
С	Shoulder	
D	Control line	
Cor	Correct Ans: D	

Itemcode : HD1076

Q7	Q76: NBCC" stands for :	
A	National Building Code Corporation	
в	National Building Construction Corporation	
с	National Building Construction Company	
D	National Building Construction Code	
Coi	Correct Ans: B	

	Itemcode : HD1077 Q77: If the depth of a beam of rectangular section is reduced to half, strain energy stored in beam becomes:		
A	1/4 time		
в	1/8 time		
с	4 time		
D	8 time		
Correct Ans: D			

Itemcode : HD1078

Q7	Q78: Which of the following is the tallest monolithic statue?		
A	Bahubali, Shravanbelagola		
в	Bahubali, Karkala		
С	Bahubali, Dharmsthala		
D	Bahubali, Venur		
Correct Ans: A			

Itemcode : HD1079

 $\label{eq:Q79: Workability of concrete is directly proportional to:$

- A Aggregate-cement ratio
- B Time of transit
- **c** Grading of the aggregate
- D All of the above
- Correct Ans: C

Q8	Q80: Which of these is a scheme for Slum Housing in India:		
A	RAY		
в	IAY		
с	JRY		
D	SGSY		
Cor	Correct Ans: A		

<u>Itemcode</u> : HD1081 Q81: For her contribution in controlling which ailment has Geeta Verma of Mandi district of H.P. been honoured by the W.H.O.?

A	Т.В.	
в	Cancer	
С	Measles	
D	Maleria	
Cor	Correct Ans: C	

Itemcode : HD1082

A Jalori B Dulchi C Chuari	Q8	Q82: Which mountain pass joins Chamba and Kangra ?		
	A	Jalori		
c Chuori	в	Dulchi		
Cilian	с	Chuari		
D Darati	D	Darati		
Correct Ans: C	Cor	rrect Ans: C		

	Itemcode : HD1083 Q83: Around which month is Cherwal festival celebrated in H.P. ?		
A	Asad		
в	Sawan		
С	Bhadon		
D	Asauj		
Cor	Correct Ans: C		

	<u>Itemcode</u> : HD1084 Q84: Which goddess is worshipped during Trilokpur fair of Sirmour district of H.P. ?		
A	Bala Sundri		
в	Lakhshana		
с	Soloni		
D	Shakti Devi		
Cor	Correct Ans: A		

Itemcode : HD1085 Q85: In which year was Administrative Reforms Unit set up in Himachal Pradesh ?		
A	1963	
в	1964	
с	1965	
D	1966	
Correct Ans: B		
Iter	Itemcode : HD1086	

Itemcode : HD1086		
		In which district of H.P. is Shilli sanctuary $?$
A	Sł	nimla

в	Bilaspur
С	Solan
D	Sirmour
Correct Ans: C	

Q87: Among the following, which District of H.P. is Not included in the H.P. Crop Diversification Promotion Project ?

A	Bilaspur
в	Mandi
с	Solan
D	Hamirpur
Cor	rrect Ans: C

Itemcode : HD1088

Q8	8: How many women were elected during the 2017 H.P. Vidhan Sabha elections ?
Α	Тwo
в	Three
С	Four
D	Five
Correct Ans: C	

<u>Ite</u>	mcode : HD1089	
Q89: Which lake is situated between Dodra - Kawar and Sangla ?		
A	Bradonsar	
в	Ghadasaru	
с	Kareli	
D	Kunt Bhyog	
Correct Ans: A		

	Itemcode : HD1090 Q90: Which among the following sectors is NOT included in H.P. in Pradhan Mantri Mudra Yojna ?		
A	Manufacturing		
в	Farming		
с	Trading		
D	Services		
Correct Ans: B			

Itemcode : HD1091		
Q91: With which activity is R. Vasudevan, the recipient of Padma Shri on the eve of 2018 Republic Day, associated ?		
A	Plastic roadmaking	
в	Tabla player	
с	Sports	
D	Music	
Correct Ans: A		

 Itemcode : HD1092

 Q92: Which one of the following sectors is NOT included in the Stand - up India scheme of Government of India launched in 2016 for setting up new enterprises ?

 A
 Agriculture

 B
 Manufacturing

 C
 Trading

D Services

Correct Ans: A

Itemcode : HD1093 Q93: How many National Bravery Awards 2017 were presented posthumously on 2018 Republic Day ?		
Α	NIL	
в	One	
С	Тwo	
D	Three	
Correct Ans: D		

	I <u>temcode</u> : HD1094 Q94: With which game is Santosh trophy associated ?	
A	Hockey	
в	Football	
с	Tennis	
D	Cricket	
Correct Ans: B		

Α	Gomti
в	Godavery
с	Mahanadi
D	Krishna
Cor	rect Ans: C

Iter	<u>mcode</u> : HD1096
Q9	6: Who is the President of Philippines ?
Α	Rodrigo Duterte
в	Lee Hsieng Loong
С	Hun Sen
D	Prayuth Chan - Ocha
Correct Ans: A	

Itemcode : HD1097 Q97: What was the venue of Miss Universe competition held in November, 2017 ?		
A	Sanya (China)	
в	Las Vegas (U.S.A.)	
с	Sao Paulo (Brazil)	
D	Ho Chi Minh City (Vietnam)	
Correct Ans: B		

Itemcode : HD1098 Q98: Which was the first Newspaper of India ?		
A	Bombay Times	
в	Hindu	
с	Bengal Gazette	
D	None of these	
Cor	Correct Ans: C	

Iter	Itemcode : HD1099		
Q99: Who invented X-rays ?			
A	John Dalton		
в	William Herschel		
с	Marie Curie		
D	Willhelm Roentgen		
Correct Ans: D			
Itemcode : HD1100			
Q100: Which day is observed as Earth Day ?			
A	April 22		
в	June 21		
с	September 14		
D	December 10		
Cor	Correct Ans: A		