

1. Area of an Equilateral triangle is $\sqrt{3}$. The perimeter of the triangle will be
(A) 2
(B) 4
(C) 6
(D) 8

Area of equilateral triangle = $(\sqrt{3}/4) \times a^2$

$$\sqrt{3} = (\sqrt{3}/4) \times a^2$$

$$a^2 = 4$$

$$a = 2$$

So the perimeter will be = $2 \times 3 = 6$

2. When she fell down the _____, she received many _____ but little help." Select the most appropriate option.
A. Stairs, Stares B. Stairs, Stairs C. Stares, Stairs D. Stares, Stares

Answer – (A) Stairs, Stares

3. In spite of being warned repeatedly, he failed to correct his _____ behavior.
A. Rational B. Reasonable C. Errant D. Good

Answer – (C) Errant

4. **Array in descending orders of their volumes.**

(i) Cuboid with 10cm x 8cm x 6cm

(ii) Cube with side of 8 cm

(iii) Cylinder with base radius 7cm and height 7cm

(iv) Sphere of radius 7cm

Solution –

$$\text{Volume of cuboid} = l \times b \times h = 10 \times 8 \times 6 = 480 \text{ cu.cm}$$

$$\text{Volume of cube} = a^3 = 8 \times 8 \times 8 = 512 \text{ cu.cm}$$

$$\text{Volume of cylinder} = V = \pi r^2 h = (22/7) \times 7 \times 7 \times 7 = 1078 \text{ cu.cm}$$

$$\text{Volume of Sphere} = V = (4/3) \pi r^3 = (4/3) \times (22/7) \times (7 \times 7 \times 7) = 1437 \text{ cu.cm}$$

Answer – (IV) - (iii) - (ii) - (i)

5. An automobile travel from city A to city B and returns to city A by the same route. It cover the onwards journey @ 60km/hr. and return journey @ 90km/hr. What is the average speed of the entire journey?

A. 72 B. 73 C. 74 D. 75

Since equal distances are covered at 60 kmph and 90 kmph, we can apply the formula $2xy/(x+y)$

$$\text{Average speed} = (2 \times 60 \times 90) / (60 + 90) = \mathbf{72 \text{ Km/hr.}}$$

Architecture

11. Assuming other variable remaining constant, the "Tropical Summer Index"

- (A) Increases with increase in air velocity
- (B) Decrease with increase in WBT (Wet Bulb Temperature)
- (C) Decrease with increase in globe temperature
- (D) Increase with increase in vapor pressure

Answer: D

Tropical Summer Index" (TSI) is defined as the air/globe temperature of the still air at 50% RH which produces the same overall thermal sensation as the environment under investigation. This index takes into account all four environmental variables (air temperature, globe temperature, humidity, air velocity) in proportion to their influence on the thermal sensation.

The equation is

$$TSI = 0.33T_w + 0.75T_g - 2\sqrt{v}$$

Where: TSI = Tropical Summer Index,

tw= Wet-bulb Temperature (°C),

tg = Globe temperature (°C),

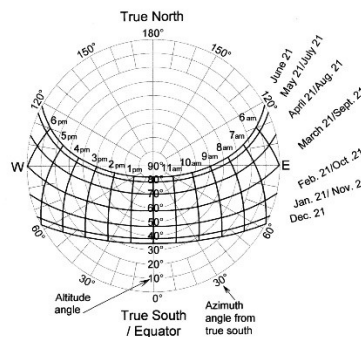
V = velocity (m/s)

12. Concentric circles in a solar chart represent

- (A) Azimuth angle
- (B) Altitude angle
- (C) Horizontal shadow angle
- (D) Vertical shadow angle

Answer – (B)

The concentric circle in solar chart represents altitude angle.



13. 'Sight Distance' is considered in the design of

- (A) Road intersection
- (B) Fenestration
- (C) Open kitchen
- (D) Auditorium

Answer – (A)

Sight distance available from a point is the actual distance along the road surface, over which a driver from a specified height above the carriage way has visibility of stationary or moving objects. This is related to road intersection.

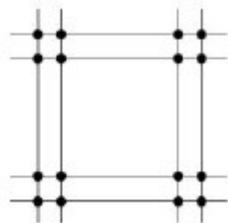
14. World Trade Center (WTC) in 2001 collapsed due to

- (A) Wind load failure
- (B) Foundation failure
- (C) Thermal performance failure of reinforced steel in RCC
- (D) Thermal performance failure of structure steel.

Answer – (D)

World Trade Center (WTC) in 2001 collapsed due to Thermal performance failure of structure steel.

15. The structural grid type shown in the figure is a



- A. Tartan B. Square C. Rectangular D. Irregular

Answer – (A) a tartan grid is a design of straight lines of varying widths and distances, crossing at right angles

16. Sidi Bashir Mosque with 'Shaking Minaret' is in

- A. Ajmer B. Allahabad C. Ahmadabad D. Amritsar

Answer – (C)

Sidi Bashir Mosque was located in the city of Ahmedabad, Gujarat. Due to its unique construction, the minarates of mosque are also called Jhulta Minar or **Shaking Minarets**.

17. A room of size 3m x 3m x 3m has reverberation time of 0.8 sec. The total absorption in the room is _____ sabin.

Solution;

Reverberation time $T = (0.16 V) / A$

$0.8 = (0.16 \times 3 \times 3 \times 3) / A$

$A = 5.4$ sabine

18. 'Area based development' and 'Pan City development' are part of

- (A) Smart city mission
- (B) Digital India mission
- (C) Swachh Bharat mission
- (D) Atal Innovation Mission

Answer – (A)

There are two strategic component of smart city mission i.e. Area based development and Pan city development. Under area based development we have Retrofitting, redevelopment and Greenfield development.

19. According to UN, component of 'Inclusive growth' is

- (A) Economic well-being
- (B) Physical infrastructure
- (C) Education
- (D) Life expectancy

Answer - (B)

According to UN, component of 'Inclusive growth' is Physical infrastructure. It enables connectivity and increases opportunity for engaging in economic activities. Also stimulates mobility of production inputs like labor, financial capital, machineries, and equipment and speeds up the delivery of social services to remote areas.

20. Unit of Damp Proof Course (DPC) is

- A. sqm B. m C. cum D. kg

Answer – (A) sq.m.

21. LRTS stands for

- (A) Light Rail Transit System
- (B) Liner Rail Transit System
- (C) Light Rail Transportation System
- (D) Liner Rail Transportation System

Answer – (A) Light Rail Transit System

22. Strength of M-25 is

- A. 25 kg/sqm B. 25N/sqmm C. 250N/sqm D. 25N/sqm

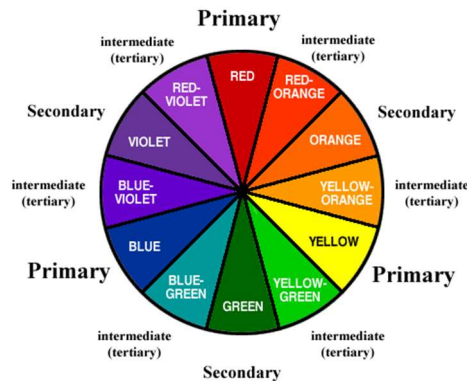
Answer - B. 25N/sqmm

M-25 means Specified characteristic compressive strength of concrete expressed in N/mm².

23. In color wheel, Red and Blue color are

- A. Tertiary B. Complementary C. Secondary D. Primary

Red, Blue and yellow are primary colors.



24. Hall of Nations was designed by

- (A) Charles Correa
(B) Raj Rewal
(C) Joseph Allen Stein
(D) A P Kanvinde

Answer – (B) Hall of Nation was an Exhibition complex designed by Architect Raj Rewal.

25. In CPM for time scheduling, 'Forward Path Calculation' is carried out for determining

- (A) LS and EF
(B) ES and EF
(C) LS and LF
(D) ES and LF

Answer - (B) In CPM for time scheduling, 'Forward Path Calculation' is carried out for determining early start time and early finish time.

26. Bamboo is

- (A) Shrub
(B) Timber
(C) Evergreen tree
(D) Perennial grass

Answer – (D) Bamboos are a group of woody **perennial evergreen** plants in the true grass family **Poaceae**.

27. As per NBC, minimum turning radius (in m) required for fire tender movement is

- A. 8 B. 8.5 C. 9 D. 9.5

Answer – (C) If there are any bends or curves on the approach road, a sufficient width shall be provided at the curve to enable the fire appliances to turn, the turning radius will be at least of 9.0 m.

28. HRIDAY stands for

- (A) National Heritage City Development and Augmentation Yojana
- (B) National Heritage City Design and Augmentation Yojana
- (C) National Heritage Development and Augmentation Yojana
- (D) National Heritage Culture Development and Augmentation Yojana

Answer – (A) The Ministry of Housing and Urban Affairs, Government of India, launched the National Heritage City Development and Augmentation Yojana (**HRIDAY**) scheme on 21st January, 2015, with a focus on holistic development of heritage cities.

29. A 25 storey building has 5 lifts. Resulting waiting time is 35 sec and 'returning time' is 175 sec. The no. of lift required for reducing waiting time to 25 sec without increasing lift speed is _____.

Answer - 2

Waiting time = RTT / N

Where, T = waiting interval

N = number of lifts, and;

RTT = round trip time

Waiting time = RTT / N

$$25 = 175 / N$$

$$N = 175 / 25 = 7$$

The no. of lift required for reducing waiting time to 25 sec will be = $7 - 5 = 2$

30. 'Town Planning Scheme' refers to

- (A) Land renewal
- (B) Land rejuvenation
- (C) Land reclamation
- (D) Land readjustion

Answer – (A) Land renewal

31. As per URDPFI, perspective plan is prepared for the duration of

- (A) 1 to 10 years

- (B) 11 to 15 years
- (C) 20 to 30 years
- (D) 30 to 45 years

Answer – 20 to 30 years

Planning system	Scope and purpose of the plan	Time frame*
Core area of planning		
Perspective Plan	To develop vision and provide a policy framework for urban & regional development and further detailing	20-30 years

32. The Equipment that is used for hoisting building material is called

- (A) Goods lift
- (B) Capsule lift
- (C) Gantry crane
- (D) Tower crane

Answer – (D) The Equipment that is used for hoisting building material is tower crane.

33. In a bird eye view of a cuboid, maximum vanishing point is

- A. 1
- B. 2
- C. 3
- D. 6

Answer – (C) Number of vanishing point in Birds eye view will be 3.

34. Rock-cut style is seen in

- (A) Shyama Raya Temple, Bishnupur
- (B) Kailash Temple, Ellora
- (C) Kandariya Mahadeva Temple, Khajuraho
- (D) Sanchi Stupa, Sanchi

Answer – (B) The Kailash temple is one of the largest rock-cut ancient Hindu temples located in Ellora, Maharashtra, India.

35. Required indoor illuminance is 350 lux. Outdoor sunlight level illuminance is 9000 lux, if daylight factor is 2.7, find the amount of additional artificial lighting required.

Answer – 107

Solution;

$$D.F. = (E_i/E_o) \times 100$$

$$2.7 = (E_i/9000) \times 100$$

$$E_i = 243$$

$$\text{So additional artificial lighting required} = 350 - 243 = 107 \text{ lux}$$

36. Which of the following is not used in BIM

- (A) Adobe Illustrator
- (B) Bentley Micro station

- (C) Autodesk Revit
- (D) ArchiCAD

Answer – (A) Adobe Illustrator is a vector graphics software used for creating logos, graphics, and cartoons etc.

37. Match the building in Group - I with their architect in Group - II

Group – I		Group –II	
P.	Guggenheim Museum, Bilbao	1.	Richard Rogers
Q.	The Shard, London	2.	Norman Foster
R.	Commerz Bank, Frankfurt	3.	Frank Gehry
S.	Heydar Aliyev Centre, Baku	4.	Renzo Piano
		5.	Zaha Hadid

The correct match is

Guggenheim Museum, Bilbao	----	Frank Gehry	Richard Rogers
The Shard, London	----	Renzo Piano	
Commerz Bank, Frankfurt	----	Norman Foster	
Heydar Aliyev Centre, Baku	----	Zaha Hadid	

38. Match the element in Group - I with the building component in Group – II

Group – I		Group –II	
P.	King post	1.	Curtain glazing
Q.	Grade beam	2.	Door
R.	Metal decking	3.	Plinth
S.	Jamb	4.	Intermediate floor
		5.	Truss

The correct match is

King post	----	Truss
Grade beam	----	Plinth
Metal decking	----	Intermediate floor
Jamb	----	Door

39. 2 hectare plot with FAR 2. Ratio of residential to commercial is 3:2 and parking required for residential is 1 ECS per 100sqm, for commercial is 1.25ecs per sqm. Total ECS will be _____.

Answer – 440

Total buildable area = $2 \times 10000 \times 2 = 400,00 \text{ Sq.m}$

Residential area = $(3/5) \times 40000 = 24,000 \text{ sq.m}$

Commercial area = $(2/5) \times 40000 = 16000 \text{ Sq.m}$

No. of ECS for residential = $(24000/100) \times 1 = 240$

No. of ECS for commercial = $(16000/100) \times 1.25 = 200$

So the total no. of ECS = $200 + 240 = 440$

40. A housing with 60 dwelling units and 5 residents per DU uses 135 lpcd. If 80% of need is met by recycled water, the daily requirement of water in liter will be _____.

Answer – 8100 liter

Total number of residents = $60 \times 5 = 300 \text{ person}$

Water requirements for 300 person = $300 \times 135 = 40500$

80% of the demand is met by recycled water

So the volume of recycled water = $40500 \times 0.80 = 32400 \text{ liter}$

Daily requirement of water = $40500 - 32400 = 8100 \text{ liter}$

41. In India for 1 Cu.m. of M-20 grade concrete the number of cement bag required is _____. (upto two decimal place)

Solution – 6 Bag

M20 Grade concrete proportion is = 1: 1.5: 3

Volume of cement required is = $1 / (1+1.5+3) = 0.18 \text{ Cu.m.}$

Mass of cement = density of cement X volume of cement

$$= 1600 \times 0.18 = 288 \text{ KG}$$

Number of cement bag = $288 / 50 = 5.76 = 6 \text{ Bag}$

42. Match the structural element in Group - I with the building in Group – II

Group – I		Group –II	
P.	Shell structure	1.	Cathedral Florence
Q.	Double dome	2.	Bahai Temple, Delhi
R.	Flying buttress	3.	Olympic Stadium, Tokyo
S.	Suspended floor	4.	Notre Dame, Paris

Answer -

The correct pair is

Shell structure – Bahai Temple, Delhi

Double dome – Cathedral Florence

Flying buttress – Notre Dame, Paris

Suspended floor – Olympic Stadium, Tokyo

43. Match the term related to landscaping in Group - I with their explanation in Group – II

Group – I		Group –II	
P.	Xeriscaping	1.	Shallow and broad channel
Q.	Drip line	2.	Outer most width of the tree
R.	Turf with paver	3.	Solution for soil erosion and water permeability
S.	Swale	4.	Requiring little or no water

Answer - The correct match is

Xeriscaping - requiring little or no water

Drip line – outer most width of the tree

Turf with paver – solution for soil erosion and water permeability

Swale – shallow and broad channel

44. Match the term related to lighting in Group - I with their Unit in Group – II

Group – I	Group –II
P. Luminance	1. Candela
Q. luminous intensity	2. Lumen / sq.m.
R. illuminance	3. Lumen / Watt
S. Luminous efficacy	4. Candela / Sq.m.

Answer – the correct match is

Luminance ----- Candela / Sq.m
 Luminous intensity ---- candela
 Illuminance ----- Lumen / sq.m.
 Luminous efficacy ---- Lumen / Watt

45. As per NBC 2016 match the fire related norms

Group – I	Group –II
P. minimum Staircase width	1. 30 m
Q. Minimum Refuge area	2. 2.0 m
R. Maximum Occupant load	3. 0.3 sq.m. Per person
S. Maximum Travel distance	4. 12.5 Per sq.m.
	5. 12 ton

Answer – the correct match is

Stair width – 2.0 meters
 Refuge area – 0.3 sq.m. Per person
 Occupant load – 12.5 per sq.m.
 Travel distance – 30 m

46. The live load and dead load in a three storied residential building transferred through a single column, is 12 tons and 18 tons respectively. If the soil bearing capacity is 10 ton/sq.m. and the factor of safety is 1.5, the area of column footing is _____ sq.m. (up to one decimal place).

Answer- **4.5 sq.m.**

Total load = 12 + 18 = 30 ton

Final load for designing = $30 \times 15 = 45$ tons

Area of footing = load / bearing capacity of soil = $45 / 10 = 4.5$ sq.m.

47. Match the iconic architectural example in grp-I with their predominantly structural element in grp-II

Group – I		Group –II	
P.	S. Maria del Fiore Cathedral, Florence	1.	Shell
Q.	Notre Dam Cathedral, Paris	2.	Suspended roof
R.	Olympic arena, Tokyo	3.	Space frame
S.	Bahä'i Temple, Delhi	4.	Double-walled dome
		5.	Flying buttress

The correct match is

Maria del Fiore Cathedral, Florence	----	Double-walled dome
Notre Dam Cathedral, Paris	-----	Flying buttress
Olympic arena, Tokyo	-----	Suspended roof
Baha'i Temple, Delhi	-----	Shell

48. A Single Phase Neutral (SPN) electrical circuit has a power consumption of 330 W. Considering a voltage of 110V and power factor of 0.8, the electrical current drawn is _____ Amp (up to one decimal place).

Answer – **3.7 Amp**

Power = voltage X Current

$$330W = 110 \times I$$

$$I = 330/110 = 3 \text{ Amp}$$

$$\text{Current drawn} = I / \text{Power factor} = 3 / 0.8 = 3.78 \text{ Amp}$$

49. A plotted housing scheme on a site of 12 hectare has 60% saleable area. The average unit cost of land development is INR 300 million per hectare. If the profit margin is 20%, then the selling price of land per hectare is million INR.

Answer – 600 Million per Ha

Site area = 10 Ha

Total cost of land development = $12 \times 300 = 3600$ Million

Profit = 20 % of 3600 = 720 Million

Salable area = 60 % of 12 Ha = 12 x 0.6 = 7.2

Selling price of land per hectare = (investment + Profit) / saleable Area
 = (3600 + 720) / 7.2 = 600 Million per Ha

50. Match the planning principle in Grp- I with their description in grp-II

Group – I	Group –II
P. Transit oriented development	1. Four stage model of regional development
Q. Core periphery theory	2. Compact and walkable mixed use development
R. Bid rent theory	3. Geographic concentration of inter-connected institutions
S. Cluster theory	4. Change of land price with relative distance from the CBD
	5. Interactive and participatory planning process

The correct match is

Transit oriented development ----- Compact and walkable mixed use development

Core periphery theory ----- Four stage model of regional development

Bid rent theory ----- Change of land price with relative distance from the CBD

Cluster theory ----- Geographic concentration of inter-connected institutions

51. The time duration of a project with optimistic time of 4 days, pessimistic time of 11 days and most likely time of 8 days is _____.

Answer ---- **7.83**

Project duration = (optimistic time + 4 most likely time + pessimistic time) / 6

Project duration = [4 + (4 x 8) + 11] / 6 = 7.83

52. Two design options of a business building on a 10 hectare site are being compared for built up area. Floor to floor height of option A is 3.6m and that of option B is 4.5m. If maximum allowable building height is 45m with same ground coverage for both options, the additional built up area achievable in option A over option B is _____%.

Answer – **20%**

Option - A	Option - B
Floor to floor height = 3.6 m	Floor to floor height = 4.5 m
Number of floor = $45/3.6 = 12.5$ i.e. 12	Number of floor = $45/4.5 = 10$ i.e. 10
Let the ground coverage be 30%	
Ground coverage = $10000 \times 0.3 = 3000$ sq.m.	Ground coverage = $10000 \times 0.3 = 3000$ sq.m.
Total builtup area = $3000 \times 12 = 36000$	Total builtup area = $3000 \times 10 = 30000$
Additional builtup area is option – B = $36000 - 30000 = 6000$	
Additional builtup area in percentage = $(6000 / 30000) \times 100 = 20\%$	

53. A building with 100 sqm roof area is connected to a 72 cum rain water collection tank. If the rain fall is 60mm/hr and the loss during water storage 20%, then the time taken to fill the tank completely is _____ hrs.

Answer – **15 hours**

Volume of water accumulated in one hour = $(100 \times .06) = 6$ cu.m.

Volume of water lost during storage = $6 \times (20/100) = 1.2$ cu.m.

Net volume of water = $6 - 1.2 = 4.8$ cu.m.

Time to fill the tank = volume of tank / volume of water per hour

Time to fill the tank = $72 / 4.8 = 15$ hours

54. Match the city in group – I with their planner in group - II

Group – I		Group –II	
P.	Islamabad	1.	Patrick Geddes
Q.	Tel Aviv	2.	C A Doxiadis
R.	Bhubaneshwar	3.	Lucio Costa
S.	Brasilia	4.	Otto Königsberger.
		5.	B.V. Doshi

Answer – the correct match is

P. Islamabad - C A Doxiadis

Q. Tel Aviv - Patrick Geddes

R. Bhubaneshwar - Otto Königsberger

S. Brasilia - Lucio Costa

55. A plotted housing scheme on a site of 12 hectare has 60% saleable area. The average unit cost of land development is INR 300 million per hectare. If the profit margin is 20%, then the selling price of land per hectare is _____ million INR.

Answer: 600

Solution: Total cost of land = $12 \times 300 = 3600$ million

Saleable land = 60% of 12 hectare = 7.2 hectare

Cost per hectare of saleable land = $3600/7.2 = 500$ million

Selling price per hectare of saleable land = Cost + 20% of cost = $500 + (0.2 \times 500) = 500 \times 1.2 = 600$ million

56. An isolated enclosure shown in the Figure has inlet P and outlet Q of 2 sq.m. each, on the opposite walls. The outdoor wind speed is 5 m/sec. If the coefficient of effectiveness is 0.6, the rate of natural ventilation in the enclosure due to wind action is _____ Cu.m./hr.

Answer – 21600

Rate of natural ventilation, Q is given by the equation

$$Q = E \times A \times V$$

Where

Q=air flow in m^3/sec

A=free area of inlet openings in m^2

V=wind velocity in m/s

E=effectiveness of openings

$$Q = E \times A \times V$$

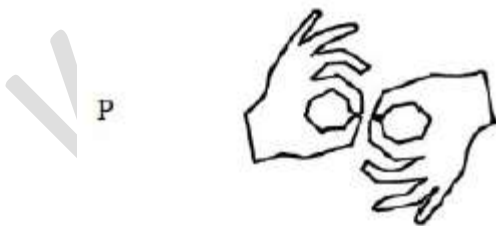
$$= 0.6 \times 2 \times 5 = 6 \text{ M}^3 / \text{sec}$$

$$\text{In one hour} = 6 \text{ M}^3 \times 3600 = 21600 \text{ Cu.m. / hr}$$

57. Match the symbol in the group in Grp-I with the meaning in Group – II

Group – I

Group –II



1. Hearing impaired

Q



2. Emergency Lamp

R



3. electrical and electronic waste disposal

S



4. Biohazard

5. Speech Impaired

The correct match is

P

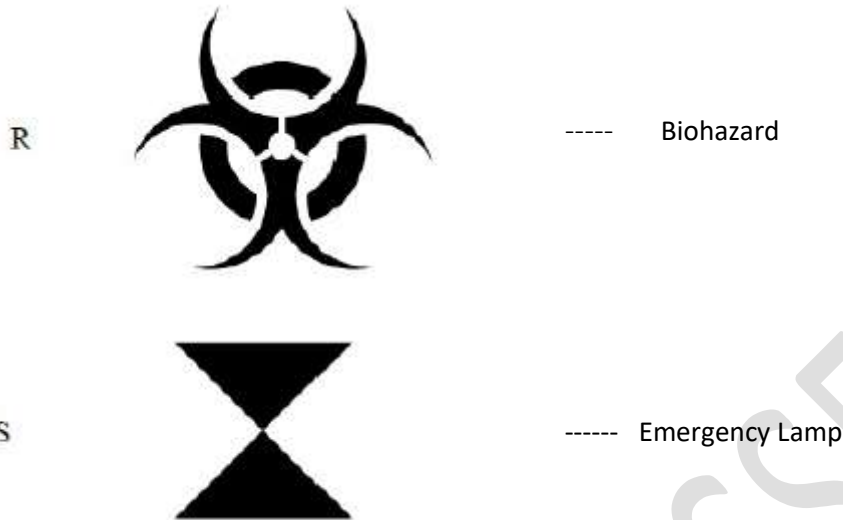


---- Speech Impaired

Q



---- electrical and electronic waste disposal



58. Match the built form in group – I with their description in group - II

Group – I		Group –II	
P.	Agora	1.	Custodial precinct
Q.	Ziggurat	2.	Place of Jewish worship
R.	Mastaba	3.	Market place
S.	Synagogue	4.	Tomb made of mud brick
		5.	Building diminishing stage of masonry with buttressed wall

The correct match is

- P. Agora - Market place
- Q. Ziggurat - Building diminishing stage of masonry with buttressed wall
- R. Mastaba - Tomb made of mud brick
- S. Synagogue - Place of Jewish worship

59. Match the temple in group – I with their Dynastic period in group - II

Group – I		Group –II	
P.	Brihadeshwara Temple	1.	Gupta

- | | |
|------------------------|-------------|
| Q. Kailashnatha Temple | 2. Chalukya |
| R. Bhitargaon Temple | 3. Lodhi |
| S. Lad Khan Temple | 4. Chola |
| | 5. Pallava |

The correct match is

- | | |
|-------------------------|----------------|
| P. Brihadeshwara Temple | ---- Chola |
| Q. Kailashnatha Temple | ----- Pallava |
| R. Bhitargaon Temple | ----- Gupta |
| S. Lad Khan Temple | ----- Chalukya |

60. A 5m x 5m x 3m room has four 230mm thick external brick walls. Total wall fenestration is 10 sqm. The temperature difference between indoor and outdoor is 2 deg Celsius. Air to air transmittance value for 230mm thick wall and 20mm thick aerated concrete block wall is 2.4 and 1.7 W/sqm-degCelsius respectively. If brick walls are replaced with aerated concrete block wall, then the change in the conductive heat flow through the wall is _____ W.

Answer - **154 W**

230 mm thick Brick	200 mm thick aerated concrete
Area of the wall = 2(20x3) = 120 Net wall area = 120 – 10 (fenestration area) = 110 sq.m.	
Conductive heat flow = U x A x ΔT Conductive heat flow = 2.4 x 110 x 2 = 528 W	Conductive heat flow = U x A x ΔT Conductive heat flow = 1.7 x 110 x 2 = 374 W
Change in the conductive heat flow through wall = 528 - 374 = 154 W	

61. The sound power level of an outdoor non-directional point source is 90dB. Considering an atmospheric impedance of 400 rays, the sound pressure level at 10m distance from the source is _____ dB.

62. Planning norms for schools is given the table

Schools	Population	Land required per school
Elementary	one per 2500	0.4 hectare
Primary	one per 5000	1.0 hectare
Secondary	one per 12500	2.0 hectares

The land area required for providing all types of schools for a population of 2 Lacks is _____ hectares.

Answer – 104 Ha

Schools	Number required	Area required
Elementary	$200000 / 2500 = 80$ no.	0.4 hectare $\times 80 = 32$ Ha
Primary	$200000 / 5000 = 40$ no.	1.0 hectare $\times 40 = 40$ Ha
Secondary	$200000 / 12500 = 16$ no.	2.0 hectares $\times 16 = 32$ Ha
Total area required		$32 + 40 + 32 = 104$ Ha

63. Match the building characteristics in group – I with their seismic consequences in group - II

Group – I	Group –II
P. Re-entrant corner	1. Soft-storey
Q. Floating column	2. Stress concentration
R. Irregular storey Stiffness	3. Vertical asymmetry
S. Gap between adjacent buildings	4. Load path discontinuity
	5. Pounding

The correct match is

P. Re-entrant corner	2. Stress concentration
Q. Floating column	4. Load path discontinuity
R. Irregular storey Stiffness	1. Soft-storey
S. Gap between adjacent buildings	5. Pounding

64. Match the building material in group – I with their property in group - II

Group – I	Group –II
P. Cement	1. Charring
Q. Steel	2. Brittle

R. Wood

S. Glass

3. Evaporation

4. Tensile strength

5. Setting time

The correct match is

P. Cement

Q. Steel

R. Wood

S. Glass

5. Setting time

4. Tensile strength

1. Charring

2. Brittle

65. Match the urban conservation themes in group – I with their respective descriptions in group - II

Group – I		Group –II	
P.	Restoration	1.	Piece by piece re-assembly
Q.	Reconstruction	2.	Returning to previous stage
R.	Reconstitution	3.	Physical addition
S.	Replication	4.	Re-creation of vanished elements
		5.	Re-production of an exact copy

The correct match is

P.	Restoration	2.	Returning to previous stage
Q.	Reconstruction	4.	.Re-creation of vanished elements
R.	Reconstitution	1.	Piece by piece re-assembly
S.	Replication	5.	Re-production of an exact copy