

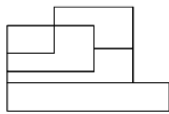
NATA Aptitude Section - Mock Test 4

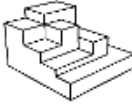
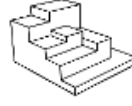
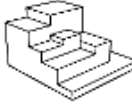
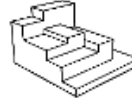
Student Name :	
Center Name :	
Total Marks: 80	Total Time: 50 mins

Note: There are 35 questions. Each Question carries 2 marks. There is no negative marking





Question and Answer Options

1. Identify the 3D object from the 2D elevation.



a) 	b) 
c) 	d) 

2. Find the odd figure out in the problem figures given below.

a) 	b) 	c) 	d) 
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3. Masonry of large blocks cut with even faces and square edges is called-----?

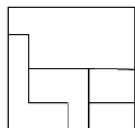
a) Arcade	b) Architrave	c) Ashlar	d) Attic
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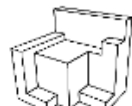
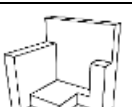
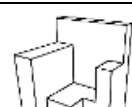
4. Identify the following type of arch?



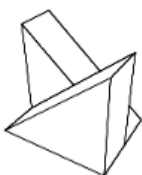
a) Ogee arch
b) elliptical arch
c) horseshoe arch
d) none of the above


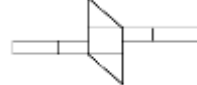


5. Identify the 3D object from the 2D elevation.



a) 	b) 
c) 	d) 

6. Identify the unfolded diagram for the 3D object.



a) 	b) 
c) 	d) 

7. Identify the following element of roof?



a)	valley
b)	ridge
c)	baluster
d)	none of the above

8. Identify the following architectural term?(indication of arrow)

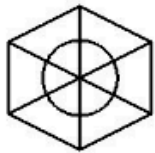


a)	Dentil
b)	frieze
c)	Soffit
d)	ridge

9. A major fire engulfed which famous cathedral in April 2019?

a) St. Paul's Cathedral, London	b) Notre Dame Cathedral, France
c) Nidaros Cathedral, Norway	d) Cathedral of Florence, Italy

10. The problem figure shows the top view of object identify the correct elevation from amongst the answer figures.



a)		b)	
c)		d)	

11. Identify the following architectural prize logo?



a)	RIBA
b)	Pritzker Architecture Prize
c)	Aga khan award for architecture
d)	AIA Gold Medal

12. Identify the following type of slab?



a)	One-way slab
b)	Two-way slab
c)	Cantilever slab
d)	Filler slab

13. Find out which of the figures (A), (B), (C) and (D) can be formed from the pieces given in figure (X).

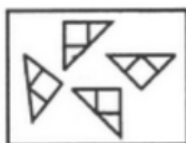


Figure- X

a)		b)	
c)		d)	

14. Identify the following logo shown below in image?

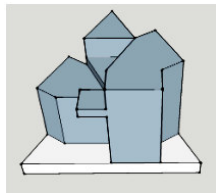


a) Indian Institute of Architects
b) Chicago Architecture Foundation
c) Council of architecture
d) none of the above

15. The sustainable building design is an enhanced building _____ that promotes environmental protection, health, and safety?

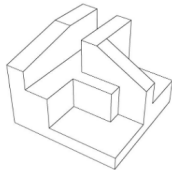
a) Feature	b) standard	c) management	d) none of the above
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16. 3D problem figure shows the view of an object. Identify the correct top view from amongst the answer figure.



a)	b)
c)	d)

17. Count the number of Faces.



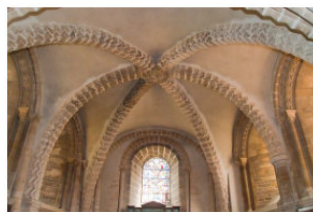
a) 19	b) 22
c) 21	d) 16

18. Identify the following famous city in the picture?



a) Doha, Qatar
b) Venice, Italy
c) Kuala Lumpur, Malaysia.
d) Florence Italy

19. Identify the following type of motifs?



a) flying Buttress
b) Buttress
c) vault
d) none of the above

20. Complementary colours are also known as -----colours?

a) Analogous	b) Tertiary	c) Opposite	d) Primary
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21. Identify the following building and its location?

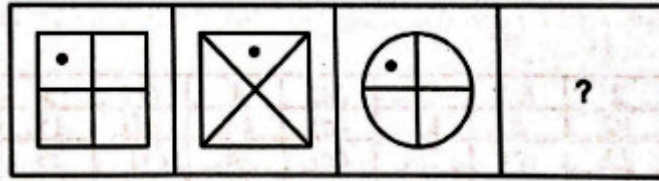


a) Shanghai Tower, Shanghai
b) Willis tower, Chicago
c) Taipei 101, Taiwan
d) Q1, Queensland, Australia.

22. What does HIA stand for?

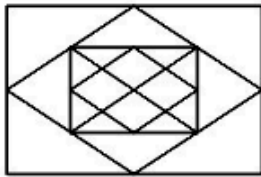
a) Historic Impact Assessment	b) Heritage Impact Assessment
c) House Impact Assessment	d) None of the above

23. Which one of the answer figures will complete the sequence of the three problem figures?



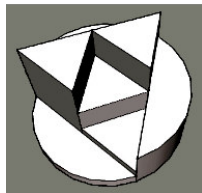
a)	b)	c)	d)
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24. The problem figure shows the top view of an object, identify the elevation from the amongst the answer figures?



a)	b)
c)	d)

25. The 3D figure shows the view of an object, identify the from the top view amongst the answer figures?

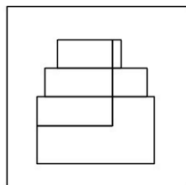


a)	b)
c)	d)

26. When does Sustainable Planning take place?

a) During the design phase of the building 's development
b) During the construction phase of the building 's development
c) After construction of the building
d) None of the above

27. The problem figure shows the elevation of an object, identify the 3D figure amongst the answer figures?



a)	b)
c)	d)

28. Identify the following flooring type?



- | | |
|----|--------------------|
| a) | marble flooring |
| b) | Granite flooring |
| c) | limestone flooring |
| d) | PVC vinyl flooring |

29. Which of these is an ancient element of the Roman architecture?

- | | | | |
|-------------|------------|----------|--------------|
| a) Cornices | b) Corbels | c) Domes | d) Aqueducts |
|-------------|------------|----------|--------------|

30. Where is the temple of Agrigento located?



- | | |
|----|-----------------|
| a) | Sicily, Italy |
| b) | Milan, Italy |
| c) | Syracuse, Italy |
| d) | Rome, Italy |

31. Find the odd figure out in the problem figure given below?

- | | | | |
|----|----|----|----|
| a) | b) | c) | d) |
|----|----|----|----|

32. Sustainable buildings will help reduce _____.

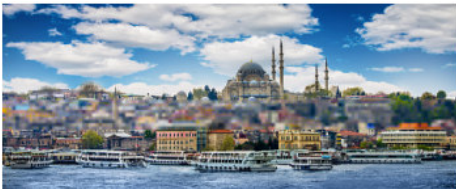
- | |
|---|
| a) 12% of potable water consumption |
| b) The 3 billion tons of raw material used each year in construction |
| c) 30%percent of all greenhouse gas emissions produced by buildings each year |
| d) all of the above |

33. Where is the temple of Agrigento located?



- | | |
|----|-------------------------|
| a) | Victorian architecture |
| b) | Gothic architecture |
| c) | romanesque architecture |
| d) | Classical architecture |

34. Identify the following famous city ?



- | | |
|----|------------------|
| a) | Moscow, Russia |
| b) | Istanbul, turkey |
| c) | Baghdad, Iraq |
| d) | Doha, Qatar |

35. Golghar is located at _____.



- | | |
|----|----------------------|
| a) | Agra, Uttar pradesh. |
| b) | Bijapur, Karnataka |
| c) | Jaipur |
| d) | Patna, Bihar |

NATA Drawing Section

Q.1. You are sitting at the current booking ticket window of a popular multiplex cinema. You are the ticket vendor. The movie is a hit and there are many people who are waiting to buy the ticket for the next show. At the back you can also see a policeman talking to a person selling tickets in "black". It is quite a chaotic situation. Somewhere in what you can see is the logo of the Multiplex Cinema. Draw a pencil sketch of the scene from your point of view. Color only the logo of the multiplex cinema.	Marks: 55	Time: 65 mins
Q.2. You have been provided with pieces of coloured paper in the shape of red triangles, blue circles and yellow squares. Make a composition in the given space using a maximum of five pieces. Size 4"x 4"	Marks: 35	Time: 35 mins
Q.3. Five bricks, four circular wooden logs and six balls are given to you. Make an interesting three dimensional stable composition using these elements and show the effect of light and shadow on the composition.	Marks: 35	Time: 35 mins

NATA Maths Section

1. The ratio in which the line $y = x$ divides the segment joining (2, 3) and (8, 6), is

a) 1 : 2	b) 1 : -2	c) 1 : -3	d) 1 : 3
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2. The cosine of the angle A of the triangle with vertices A(1, -1, 2), B(6, 11, 2), C(1, 2, 6), is

a) 63/65	b) 36/65	c) 16/65	d) 13/64
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3. $\int_0^{\pi/2} \frac{dx}{1+\tan^2 x}$ is equal to

a) π	b) $\pi/2$	c) $\pi/4$	d) $3\pi/2$
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4. $\lim_{x \rightarrow 0} \frac{x(1 - \sqrt{1-x^2})}{\sqrt{1-x^2}(\sin^{-1}(x))^3} =$

a) 1	b) $\frac{1}{2}$	c) -1/2	d) -1
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5. $\int \sin^5 x \cdot \cos^{100} x \, dx =$

a) $\frac{\cos^{105} x}{105} + 2\frac{\cos^{103} x}{103} + \frac{\cos^{101} x}{101} + c$	b) $-\frac{\cos^{105} x}{105} + 2\frac{\cos^{103} x}{103} - \frac{\cos^{101} x}{101} + c$
c) $-\frac{\cos^{105} x}{105} - 2\frac{\cos^{103} x}{103} + \frac{\cos^{101} x}{101} + c$	d) $\frac{\cos^{105} x}{105} - 2\frac{\cos^{103} x}{103} + \frac{\cos^{101} x}{101} + c$

6. Krypton gas possesses only _____ energy.

a) translational	b) vibrational	c) rotational	d) potential
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7. All open container reactions are

a) isochoric	b) isobaric	c) adiabatic	d) reversible
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8. _____ is NOT an intensive property.

a) vapour pressure	b) volume	c) temperature	d) density
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9. Formation of NH_3 from N_2 and H_2 is _____ reaction.

a) homogeneous	b) heterogeneous	c) exothermic	d) both a) and c)
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10. Oxidation number of carbon in methane is:

a) -4	b) zero	c) +1	d) -1
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11. Sensitivity of a potentiometer can be increased by

a) increasing the length	b) increasing the P.D.
c) decreasing the series resistance	d) increasing the current in the potentiometer wire

12. A bar magnet is kept along the axis of a coil with its N-pole facing the coil. The magnet is then rotated along its own axis. The induced current in the coil will be

a) clock wise	b) anticlockwise
c) an alternating current	d) zero

13. The magnetic flux through a coil is at time $t=0$. It reduces to 10% of its original value in 't' 0.25 s seconds. If the induced e.m.f. is 0.72 m V, then the time t is

a) 0.25 s	b) 0.5 s	c) 0.75 s	d) 1 s
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14. Whenever a magnet is moved either towards or away from a conducting coil, an emf is induced, the magnitude of which is independent of

a) the number of turns of the coil	b) the resistance of the coil
c) the area of cross-section of the coil	d) the strength of the magnetic field

15. The total charge induced in conducting loop, when it is moved in magnetic field depends upon

a) the total change in the magnetic flux	b) final magnetic flux only
c) the rate of change of the magnetic flux	d) initial magnetic flux only

