

AE (Civil) Master Question Set with Answer Keys

1)	A weighing scale in a stationary lift shows a reading of 90 kg for a man standing on it. Subsequently, the lift starts descending at an acceleration of $g/5$. The revised reading on the scale would be	
A)	108 kg	B) 90 kg
C)	72 kg	D) None of these
Correct Answer: C		
2)	Clay is	
A)	As porous as sand	B) As porous as sand
C)	Less porous than sand	D) Need more information to make a comment
Correct Answer: B		
3)	A plan of an area drawn with the original scale of 1 cm = 10 m, has shrunk such that a line, originally 25 cm long on the plan, now measures 22.5 cm. What is the new scale?	
A)	1 cm = 11.11 m	B) 1 cm = 10.97 m
C)	1 cm = 11.70 m	D) 1 cm = 0.11 m
Correct Answer: A		
4)	Hacking is a process of	
A)	Making the background surface smooth before plastering	B) Making the background surface rough before plastering
C)	Making plaster smooth before using it	D) Making the plaster rough before using it
Correct Answer: B		
5)	The closer the contour lines	
A)	The gentler the slope	B) The steeper the slope
C)	The lack of slope	D) Has not relation with the slope
Correct Answer: B		
6)	In construction terminology, what does RCC stand for?	
A)	Reinforced Concrete Cement	B) Reinforced Cement Concrete
C)	Reused Cement Concrete	D) Reused Concrete Cement
Correct Answer: B		
7)	In construction terminology, what does CBW stand for?	
A)	Concrete Block Wall	B) Concrete Block Wall
C)	Common Boundary Wall	D) None of the above
Correct Answer: A		
8)	In construction terminology, what does RSA stand for?	
A)	Rolled Steel Angle	B) Right Steel Angle
C)	Rolled Strong Angle	D) Right Skewed Angle
Correct Answer: A		
9)	In construction terminology, what does SRC stand for?	
A)	Sulphate Resistant Concrete	B) Sand Resistant Concrete
C)	Sand Resistant Concrete	D) Sand Resistant Cement
Correct Answer: A		
10)	Presence of air bubbles in concrete	
A)	Shall increase the strength of the concrete	B) Shall reduce the strength of the concrete
C)	Shall increase the strength of the concrete but make it brittle	D) Shall not affect the strength of the concrete
Correct Answer: B		

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11)	Which of the following are slump test indicators?	
A)	True slump	B) Shear slump
C)	Collapse slump	D) All of the above
Correct Answer: D		
12)	The primary purpose of curing is to	
A)	Reduce the heat loss of concrete that is freshly placed to the atmosphere	B) Reduce the temperature gradient across the cross-section of the concrete
C)	Both (a) and (b)	D) Neither (a) nor (b)
Correct Answer: C		
13)	Waterstops in joints of box culverts and drainage channels	
A)	Help in providing water tightness to the drainage channels	B) Help in allowing water seepage in to the soil
C)	Both (a) and (b)	D) Neither (a) nor (b)
Correct Answer: A		
14)	Kerbs are necessary in road pavements because	
A)	They provide strength to the sides of road pavements and avoid lateral displacement of carriageway due to traffic loads	B) In terms of road safety, they serve as a separation line between footway and carriageway and aid car drivers in driving safely
C)	They act as a vertical barrier to guide the surface runoff collected in road pavements to the gullies	D) All of the above
Correct Answer: D		
15)	A screw	
A)	Is entirely full of threads	B) Is entirely full of threads
C)	Is always fitted with nuts	D) All of the above
Correct Answer: A		
16)	What is the main problem with Deck bridges?	
A)	The traffic is exposed to winds	B) The compression flanges have no lateral support
C)	The road level has to be very high	D) It is not possible to provide portal branchings
Correct Answer: A		
17)	Suppose you are using the "full face" method to construct a tunnel. The first operation will them be	
A)	Excavation of one drift in the centre	B) Excavation being done along the perimeter
C)	Removal of the top portion	D) Removal to the bottom portion
Correct Answer: C		
18)	Efflorescence is	
A)	Formation of white patches on the surface of bricks due to the presence of insoluble salts in the clay used for making bricks	B) Swelling of bricks due to the presence of carbonaceous matter and gas
C)	Deformation arising out of exposure to the weather	D) Presence of impurities in the clay used for making bricks that show up after burning
Correct Answer: A		
19)	While doing cost analysis, if the standard deviation is high, it would generally lead to	
A)	Higher levels of uncertainty	B) Lower levels of uncertainty
C)	Increased costs	D) Reduced costs
Correct Answer: C		

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20)	Compared to a constant radius arch dam, a constant angle arch dam	
A)	Consumes less concrete	B) Consumes more concrete
C)	Consumes the same amount of concrete	D) None of the above
Correct Answer: A		
21)	By using the lime – soda process of water softening,	
A)	Lime reduces the carbonate hardness while soda reduces the non – carbonate hardness	B) Lime reduces the non – carbonate hardness while soda reduces the carbonate hardness
C)	Only carbonate hardness is removed	D) Only non – carbonate hardness is removed
Correct Answer: A		
22)	When compared with Tri–calcium silicate, Tri–calcium aluminate reacts with water	
A)	Faster	B) Slower
C)	Takes the same time	D) Does not react at all
Correct Answer: A		
23)	The unit for coefficient of subgrade modulus is	
A)	kN / m^3	B) kN / m^2
C)	kN / m	D) $\text{kN} \cdot \text{m}$
Correct Answer: A		
24)	Which of the following items of work would necessarily be included in the estimation of plinth area?	
A)	Wall thickness	B) Room area
C)	Verandah area	D) All of the above
Correct Answer: D		
25)	Bicarbonates of calcium and magnesium cause	
A)	Permanent hardness in water	B) Temporary hardness in water
C)	Both permanent and temporary hardness in water	D) No hardness in water
Correct Answer: B		
26)	In the context of waste water, BOD stands for	
A)	Biochemical Oxygen Demand	B) Biomechanical Oxygen Demand
C)	Biophysical Oxygen Demand	D) None of the above
Correct Answer: A		
27)	What is plastic limit of soil?	
A)	The minimum water content at which the soil just begins to crumble when rolled into threads 3 mm in diameter	B) The maximum water content at which the soil just begins to crumble when rolled into threads 3 mm in diameter
C)	The exact water content at which the soil just begins to crumble when rolled into threads 3 mm in diameter	D) None of the above
Correct Answer: A		
28)	The distance between the intrados and extrados of an arch measure the	
A)	The distance between the intrados and extrados of an arch measure the	B) Curvature of an arch
C)	Both (a) and (b)	D) Neither (a) nor (b)
Correct Answer: A		

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29)	When will the bending moment of a section of a beam be maximum?	
A)	When the shear force along the section of the beam is zero	B) When the shear force along the section of the beam is non zero
C)	When the stress on the beam is zero	D) None of these
Correct Answer: A		
30)	Which of the following is a sedimentary rock?	
A)	Sand stone	B) Limestone
C)	Coal	D) All of the above
Correct Answer: D		
31)	Proof Resilience is the	
A)	Maximum energy stored at elastic limit of a material	B) Minimum energy stored at elastic limit of a material
C)	Average energy stored at elastic limit of a material	D) None of the above
Correct Answer: A		
32)	Segregation is	
A)	Separation of fine aggregates from mortar during transportation	B) Separation of fine aggregates from mortar during transportation
C)	Separation of all aggregates from mortar during transportation	D) None of the above
Correct Answer: B		
33)	A plastic member	
A)	Does not regain its original shape after removed of load producing deformation	B) Regains its original shape after removed of load producing deformation
C)	Regains its original shape after removed of load producing deformation when heat is applied to it	D) None of the above
Correct Answer: A		
34)	What will be the depth of a beam that is 20 cm wide and is subjected to a shearing force of 10,000 kg. It may be noted that in this case the maximum shearing stress is 30 kg / cm ² .	
A)	15 cm	B) 20 cm
C)	25 cm	D) 30 cm
Correct Answer: C		
35)	Secant's formula	
A)	Determines the allowable stress in axial compression	B) Determines the allowable stress in coaxial compression
C)	Determines the allowable strain in axial compression	D) Determines the allowable strain in coaxial compression
Correct Answer: A		
36)	Lintels are associated with	
A)	Doors and windows	B) Ceilings
C)	Both (a) and (b)	D) Neither (a) nor (b)
Correct Answer: A		
37)	Which of the following is a property of "Sand Lime Bricks"?	
A)	Their color appearance is grey instead of the regular reddish color	B) Their shape is uniform and presents a smoother finish that doesn't require plastering
C)	These bricks offer excellent strength as a load-bearing member	D) All of the above
Correct Answer: D		

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38)	Which of the following is a construction estimate?	
A)	Initial feasibility estimate	B) Conceptual preliminary budget
C)	Definite estimate	D) All of the above
Correct Answer: D		
39)	Soffit is	
A)	The under surface of an arch	B) The top surface of an arch
C)	The curvature of an arch	D) None of the above
Correct Answer: A		
40)	If an activity lies on the critical path, its total float will be	
A)	Positive	B) Negative
C)	Zero	D) Cannot be determined
Correct Answer: C		
41)	What is trowelling?	
A)	The final operation in finishing a floor	B) The initial operation in finishing a floor
C)	An intermediate operation in the finishing of a floor	D) Has nothing to do with floors
Correct Answer: A		
42)	The higher the cohesiveness of concrete,	
A)	The lesser the chance of segregation	B) The higher the chance of segregation
C)	The higher the chance of bleeding	D) The lesser the chance of bleeding
Correct Answer: A		
43)	Which of the following can be subjected to a Slump test?	
A)	Clay	B) Sand
C)	Lime	D) Concrete
Correct Answer: D		
44)	Consider a plot of land in the shape of a parallelogram ABCD. Further, the angle BAD is 60° and the bearing of the line AB is 30°. What will then be the bearing of the line CD?	
A)	90°	B) 120°
C)	210°	D) 270°
Correct Answer: C		
45)	If one were engaged in chain surveying, the field work would then be limited to	
A)	Only linear measurements	B) Only angular measurements
C)	Both angular as well as linear measurements	D) None of the above
Correct Answer: A		
46)	Which of the following statements is correct?	
A)	The real image of an object formed by the objective, must lie in the plane of the cross hairs	B) The real image of an object formed by the objective, must lie at the centre of the telescope
C)	The real image of an object formed by the objective, must lie at the optical centre of the eyepiece	D) None of the above
Correct Answer: A		
47)	The extent of carbon in wrought iron is up to	
A)	0 %	B) 0.25 %
C)	0.5 %	D) 1 %
Correct Answer: B		

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48)	Chemically, how would Kaolin be classified as?	
A)	Metamorphic rock	B) Calcareous rock
C)	Silicious rock	D) Argillaceous rock
Correct Answer: D		
49)	What is the initial setting time for lime-pozzolona?	
A)	Half an hour	B) One hour
C)	One and a half hour	D) Two hours
Correct Answer: D		
50)	Which of the following would you normally use for water proofing?	
A)	Limestone	B) Calcium
C)	Mastic asphalt	D) None of the above
Correct Answer: C		
51)	Which of the following is not a major constituent of fly-ash?	
A)	Aluminum oxide	B) Silica
C)	Ferrous oxide	D) Cobalt Oxide
Correct Answer: D		
52)	Which of the following is a property of black cotton soil?	
A)	It does not retain moisture	B) It swells excessively when wet and shrinks excessively when dry
C)	It becomes soft when dry	D) It is very rocky
Correct Answer: B		
53)	The material that acts as the binding agent in mortar is	
A)	Sand	B) Surkhi
C)	Cinder	D) None of the above
Correct Answer: D		
54)	Columns are	
A)	Structural members subjected to compressive stress in a direction parallel to its longitudinal axis	B) Structural members subjected to compressive stress in a direction parallel to its latitudinal axis
C)	Structural members subjected to compressive stress in a direction parallel to both its axes	D) None of the above
Correct Answer: A		
55)	Which of the following different types of lime would be expected to contain a high percentage of calcium oxide?	
A)	Fat lime	B) White lime
C)	Rich lime	D) None of the above
Correct Answer: D		
56)	A Second's pendulum executes 2 beats per second. It is observed that the pendulum is gaining 2 minutes a day. What would you do to rectify the issue that it keeps the correct time?	
A)	Decrease the length of the pendulum	B) Increase the length of the pendulum
C)	Keep the length unchanged but increase the weight of the bob	D) Keep the length unchanged but decrease the weight of the bob
Correct Answer: B		
57)	Between teak and shisham,	
A)	Teak is more resistant to white ants than shisham	B) Shisham is more resistant to white ants than teak
C)	The resistance to white ants is the same	D) None of the above
Correct Answer: B		

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58)	What is the ratio of the diameter of reinforcing bars to the slab thickness?	
A)	1/2	B) 1/4
C)	1/8	D) 1/16
Correct Answer: C		
59)	The purchase price of a machine is Rs. 25,000. The machine has a working life of 35000 hours and at the end of the working life, the machine can be sold for Rs. 7,500 as scrap. The depreciation charge on the machine is constant. How much will be the per hour depreciation charge on this machine?	
A)	Rs. 0.21	B) Rs. 0.50
C)	Rs. 0.72	D) Cannot be determined based on the given data
Correct Answer: B		
60)	Quick lime is the common name for	
A)	Calcium Oxide	B) Calcium Carbonate
C)	Calcium Hydroxide	D) None of the above
Correct Answer: A		
61)	A Cross staff is used for	
A)	Measuring approximate horizontal angles	B) Measuring bearings of lines
C)	Setting out right angles	D) Measuring the weight bearing capacity of a beam
Correct Answer: C		
62)	If you needed to correct for sag, the correction would	
A)	Be always additive	B) Be always subtractive
C)	Be always zero	D) Be sometimes additive and sometimes subtractive
Correct Answer: B		
63)	Which of the following sights are taken on a "turning point"?	
A)	Foresight only	B) Backsight only
C)	Foresight and backsight	D) None of the above
Correct Answer: C		
64)	Which type of flooring would ensure a near noiseless floor?	
A)	Cork flooring	B) Glass flooring
C)	Linoleum flooring	D) Wooden flooring
Correct Answer: A		
65)	Which of the following trees yield soft wood?	
A)	Shisham	B) Sal
C)	Teak	D) Chir
Correct Answer: D		
66)	Which of the following types of footing will be used to transmit heavy loads through steel columns?	
A)	Raft foundation	B) Grillage foundation
C)	Well foundation	D) Isolated footing
Correct Answer: B		
67)	In general, what should be the minimum number steps in a flight of stairs?	
A)	1	B) 2
C)	3	D) 5
Correct Answer: C		

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68)	What is the ultimate tensile strength of structural mild steel?	
A)	160 N / mm ²	B) 260 N / mm ²
C)	420 N / mm ²	D) None of the above
Correct Answer: C		
69)	Which of the following statements is true?	
A)	Poisson's ration for concrete remains constant irrespective of the quality of mix	B) Poisson's ratio for concrete increases with richer mixes
C)	Poisson's ratio for concrete decreases with richer mixes	D) None of the above
Correct Answer: B		
70)	Which of the following statements is correct?	
A)	The factor of safety for steel is lower than that for concrete	B) The factor of safety for steel is higher than that for concrete
C)	The factor of safety for steel and concrete are the same	D) None of the above
Correct Answer: A		
71)	Which of the following statements is true?	
A)	Diagonal tension in a beam increases below the neutral axis and decreases above the neutral axis	B) Diagonal tension in a beam increases above the neutral axis and decreases below the neutral axis
C)	Diagonal tension in a beam is at its maximum at the neutral axis	D) None of the above
Correct Answer: A		
72)	In a steel girder, where would you expect tongue plates to be provided?	
A)	The upper flange	B) The lower flange
C)	The upper and lower ends of the web	D) None of the above
Correct Answer: C		
73)	How is efficiency of a riveted joint defined?	
A)	The least strength of a riveted plate to the greatest strength of the riveted joint	B) The least strength of a riveted joint to the strength of a solid plate
C)	The greatest strength of a riveted joint to the strength of a solid plate	D) All of the above
Correct Answer: D		
74)	You are required to plan the laying of a gully. Which of the following costs should you include?	
A)	Setting and laying	B) Bed concreting
C)	Connection to drains	D) All of these
Correct Answer: D		
75)	Which of the following statements is correct?	
A)	Column bases transmit the column load to the column foundation	B) Column load is spread over a large area of concrete
C)	Loaded columns are supported on column bases	D) All of the above
Correct Answer: D		
76)	During a "Sale Period", Shoppers Stop announces a 20% discount on the price of all of its products. This results in an increase of the sales volume by 25%. What is the net effect on the revenue because of the discount?	
A)	Increase of 5%	B) Decrease of 5%
C)	Increase of 10%	D) Revenue remains constant
Correct Answer: D		

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77)	The worth of a transformer depreciates at the rate of 5% every year as compared to its value in the previous year. If the present worth is Rs. 60,00,000, what was its worth when the transformer was bought by the firm 4 years back (the answers are rounded off to the nearest thousand)?	
A)	Rs. 51,08,000	B) Rs. 72,93,000
C)	Rs. 51,44,000	D) Rs. 48,87,000
Correct Answer: B		
78)	What is the next number of the series: 2, 6, 14, 26, 42, 62, ...	
A)	82	B) 80
C)	86	D) None of the above
Correct Answer: C		
79)	Which of the following countries is a member of the United Nations Security Council?	
A)	Republic of China	B) People's Republic of China
C)	India	D) Germany
Correct Answer: B		
80)	Identify the odd one out?	
A)	Ganga	B) Mahanadi
C)	Godavari	D) Krishna
Correct Answer: C		
81)	The capital of Assam is	
A)	Guwahati	B) Dispur
C)	Tinsukia	D) None of the above
Correct Answer: B		
82)	The sum of two numbers is 40 and the difference is 12. What is the value of the smaller number of the two?	
A)	14	B) 26
C)	12	D) 10
Correct Answer: A		
83)	Who succeeded Morarji Desai as the Prime Minister of India?	
A)	Indira Gandhi	B) Rajiv Gandhi
C)	Charan Singh	D) None of the above
Correct Answer: C		
84)	The minimum educational qualification to contest for the post of member of Legislative Assembly in any state of India is	
A)	Graduate	B) Post Graduate
C)	SSLC or its equivalent	D) None of these
Correct Answer: D		
85)	A circular field has a diameter of 14 meters. The field is divided in to four separate quadrants. What is the cost of fencing all the four quadrants at Rs. 100 per meter?	
A)	Rs. 10,000	B) Rs. 2500
C)	Rs. 7200	D) Rs. 4400
Correct Answer: A		

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86)	A solid cube with each side being of length 8 inches was painted violet, indigo and yellow on pair of opposite faces. It is then cut into 1 inch cubes. How many of the small one – inch cubes have exactly 4 faces painted?	
A)	16	B) 8
C)	4	D) None of these
Correct Answer: D		
87)	The national game of India is	
A)	Cricket	B) Football
C)	Kabaddi	D) Hockey
Correct Answer: D		
88)	Victoria Terminus can be found at	
A)	Mumbai	B) Bangalore
C)	Chennai	D) Kolkata
Correct Answer: A		
89)	If you cut a bar magnet into half, the pole strength of each piece	
A)	Becomes half	B) Remains the same
C)	Becomes double	D) Becomes zero
Correct Answer: B		
90)	Identify the correct combination?	
A)	Gol Gumbaz – Hassan	B) Gomateshwara statue – Shravan Belagola
C)	Bannerghatta National Park – Hubli	D) Lalbagh - Gulbarga
Correct Answer: B		
91)	Who was the first vice president of India?	
A)	Dr. Rajendra Prasad	B) Sarvapalli Radhakrishnan
C)	Hamid Ansari	D) R. Venkatraman
Correct Answer: B		
92)	Two dice are tossed. The probability that the total score is a multiple of 3 is:	
A)	(1/6)	B) (1/3)
C)	(1/2)	D) (7/9)
Correct Answer: B		
93)	A 1 kilometre long train passes through a tunnel of 2 kilometre length at a speed of 1 kilometre per minute. What will be the minimum time taken for the train to inside the tunnel completely?	
A)	1 minute	B) 2 minutes
C)	3 minutes	D) 4 minutes
Correct Answer: B		
94)	If the radius of a circle is decreased by 6%, the area of the circle	
A)	Decreases by 12.36%	B) Decreases by 11.64%
C)	Does not change at all	D) None of the above
Correct Answer: B		
95)	The total of the ages of Amar, Akbar and Anthony is 80 years today. If Amar's age is 25 today, what was the total of the ages of Akbar and Anthony three years ago?	
A)	49 years	B) 55 years
C)	46 years	D) None of the above
Correct Answer: A		

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96)	The telephone was invented by	
A)	Alexander Graham Bell	B) J. Kepler
C)	D. Rutherford	D) James Chadwick
Correct Answer: A		
97)	Consider a ray standing on a line. The sum of the two adjacent angles is	
A)	Greater than a straight angle	B) Less than a straight angle
C)	Equal to a straight angle	D) None of the above
Correct Answer: C		
98)	A man's basic pay for 40 hours' week is Rs. 200. Overtime is paid at 25% of the basic rate. In certain week, he has worked overtime and his total earning is Rs. 300. He therefore, worked for a total of (in hours)	
A)	52	B) 56
C)	58	D) 62
Correct Answer: B		
99)	Who has been the youngest person to have ever become a Chief Minister of any state in India?	
A)	H D Kumaraswamy	B) Akhilesh Yadav
C)	Mamata Bannerjee	D) Omar Abdullah
Correct Answer: B		
100)	Louis Phillippe had given a discount of 10% of the marked price of a shirt. If the cost price of the shirt is Rs. 8000 and Louis Phillippe made a profit of 12.5 percent in the transaction, what is the marked price of the shirt?	
A)	Rs. 1100	B) Rs. 1000
C)	Rs. 1200	D) None of these
Correct Answer: Question is dropped		

