Answer-key & Solution

SSC JE (Civil)
MOCK -(112)
Date 26/ 8/ 2017

#	Ans	#	Ans	#	Ans	#	Ans	#	Ans	#	Ans	#	Ans	#	Ans
1	C	26	A	51	C	76	B	101.	B	126.	B	151.	A	176.	D
2	C	27	B	52	B	77	D	102.	D	127.	A	152.	C	177.	B
3	C	28	C	53	C	78	A	103.	D	128.	D	153.	B	178.	A
4	A	29	A	54	D	79	C	104.	D	129.	C	154.	A	179.	D
5	C	30	C	55	D	80	D	105.	D	130.	A	155.	D	180.	D
6	A	31	D	56	B	81	A	106.	B	131.	D	156.	D	181.	B
7	B	32	B	57	B	82	D	107.	C	132.	A	157.	B	182.	B
8	A	33	B	58	D	83	D	108.	A	133.	C	158.	B	183.	D
9	B	34	B	59	A	84	B	109.	B	134.	A	159.	C	184.	A
10	A	35	D	60	C	85	D	110.	D	135.	D	160.	B	185.	B
11	A	36	B	61	B	86	B	111.	B	136.	D	161.	C	186.	B
12	D	37	A	62	B	87	A	112.	D	137.	D	162.	D	187.	D
13	C	38	D	63	A	88	C	113.	C	138.	A	163.	D	188.	B
14	D	39	B	64	B	89	B	114.	B	139.	A	164.	B	189.	C
15	D	40	B	65	D	90	A	115.	A	140.	D	165.	A	190.	B
16	C	41	B	66	D	91	D	116.	B	141.	D	166.	B	191.	A
17	C	42	B	67	A	92	D	117.	A	142.	B	167.	B	192.	B
18	A	43	C	68	C	93	A	118.	B	143.	B	168.	C	193.	D
19	D	44	B	69	D	94	C	119.	C	144.	A	169.	B	194.	A
20	B	45	A	70	B	95	D	120.	C	145.	C	170.	C	195.	A
21	C	46	D	71	B	96	C	121.	C	146.	D	171.	C	196.	B
22	B	47	D	72	A	97	B	122.	C	147.	B	172.	C	197.	A
23	B	48	D	73	D	98	B	123.	B	148.	B	173.	B	198.	B
24	A	49	A	74	B	99	B	124.	C	149.	C	174.	C	199.	B
25	B	50	C	75	A	100	D	125.	B	150.	D	175.	D	200.	C

Note : *If your opinion differ regarding any answer, please message the mock test and Question number to 9560620353*

Note : *If you face any problem regarding result or marks scored, please contact : 9313111777*

SOLUTION SSC JE (Civil) MOCK TEST no. 112

1. (C) Fox and vixen are opposite genders. Similarly Hen and rooster are opposite genders.

2. (C) The room is a section of building. Similarly wheel is a section of cycle.

3. (C) 'When' is related to 'time'. Similarly 'where' is related to place.

4. (A) The number of 2s in the first part is **(4)** whereas in the second part we have **(5)** 2s.

5. (C) $4831 \to 8 + 3 + 1 - 4 = 8$
   $5437 \to 4 + 3 + 7 - 5 = \textbf{9}$

6. (A)

7. (B)
```
A    D    H    M
↓    ↓    ↓    ↓
1    4    8    13   (Positions Alphabetically)
Z    W    S    N
↓    ↓    ↓    ↓
1    4    8    13   (Positions in reverse order)
C    I    F    D
↓    ↓    ↓    ↓
3    9    6    4   (Positions Alphabetically)
X    R    U    W
↓    ↓    ↓    ↓
3    9    6    4   (Positions in reverse order)
```

8. (A)
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O ← P → Q        J ← K → L
Z ← A → B        C ← D → E
Q ← R → S        B ← C → D
Z ← A → B        Z ← A → B
L ← M → N        L ← M → N
N ← O → P        O ← P → Q
T ← U → V        T ← U → V
M ← N → O        R ← S → T
S ← T → U
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9. (B) Ink is used in pen. Similarly ribbon is used in typewriter.

10. (A) Butter is made with the help of milk. Similarly book is made with the help of paper.

11. (A) Germany is a European country where as rest are Asian countries.

12. (D) Except Dion Nash, all are wicket keepers.

13. (C) $\dfrac{8+7+6}{3+4} = \dfrac{21}{7} = 3$, $\dfrac{3+6+6}{3+2+0} = \dfrac{15}{5} = 3$

$\dfrac{9+7+5}{2+1} = \dfrac{21}{3} = 7$, $\dfrac{7+0+5}{3+0+1} = \dfrac{12}{4} = 3$

14. (D) $\dfrac{12^2}{3} = \dfrac{144}{3} = 48$, $\dfrac{18^2}{3} = \dfrac{324}{3} = 108$

$\dfrac{24^2}{3} = \dfrac{576}{3} = 192$,

$\dfrac{30^2}{3} = \dfrac{900}{3} = 300 \neq 360$

15. (D) Except Bhojpuri, all languages are mentioned in eighth schedule of the constitution.

16. (C) Radio is heard whereas others are seen.

17. (C) $152 \to 3^3 + 5^3 = 27 + 125$
   (Square of continuous odd numbers)
   $10 \to 1^3 + 3^3 = 1 + 9$
   (Square of continuous odd numbers)
   $72 \to 2^3 + 4^3 = 8 + 64$
   (Square of continuous even numbers)
   $468 \to 5^3 + 7^3 = 125 + 343$
   (Square of continuous odd numbers)

18. (A) Village → Block → Subdivision → District → Commisionary → State.

19. (D) Restaurant → Restore → Revolution
            (1)   (2)   (3)
   → Revolve
        (4)

20. (B) ab/ a **b** c/a b **c** d/a **b c d** e/**a** b c d e **f**/a

21. (C) a b **c** d d/**c** b a/**a** b c d **d**/c b a

22. (B)

23. (B)

24. (A)

   $= 265 \times 5 - 4 = 1325 - 4 = 1321$

25. (B)

26. (A)

27. (B)

Month	Jan	Feb	Mar	Apr	May	June
	↓	↓	↓	↓	↓	↓
Code	0	3	3	6	1	4

Month	July	Aug	Sept	Oct	Nov	Dec
	↓	↓	↓	↓	↓	↓

Code	6	2	5	0	3	5

$$\frac{87 + 21 + 4 + 10}{7} = \frac{122}{7}$$

= 17 × 7 + $\boxed{3}$ → remainder

3rd day is wednesday

87 → Tens digit of year
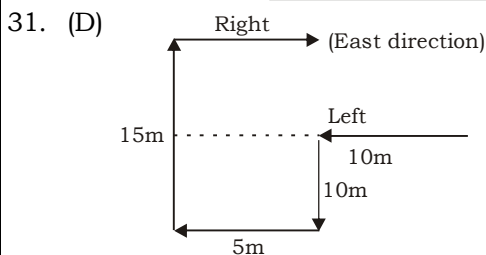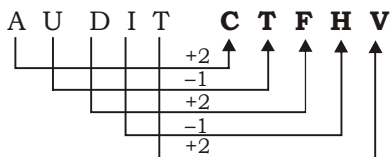
21 → Quotient of (87 ÷ 4)
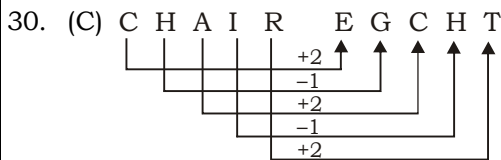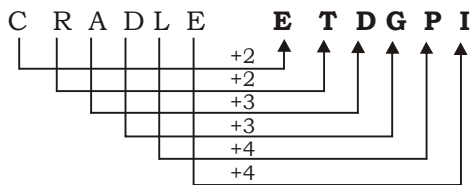
4 → Code of months

10 → Given date

28. (C) ∵ minute hand runs 55 minutes faster than hour hand in 60 minutes

∴ " " 1 " $\frac{60}{55}$ "

∴ " " 45 " $\frac{60}{55} \times 45 = 49\frac{1}{11}$

So, at 3 : $49\frac{1}{11}$ minutes both the hands will be in opposite directions.

29. (A) M A S T E R   O C V W I V
+2 +2 +3 +3 +4 +4

C R A D L E   **E T D G P I**
+2 +2 +3 +3 +4 +4

30. (C) C H A I R   E G C H T
+2 −1 +2 −1 +2

A U D I T   **C T F H V**
+2 −1 +2 −1 +2

31. (D)

Right → (East direction)

15m ···· Left 10m

10m

5m
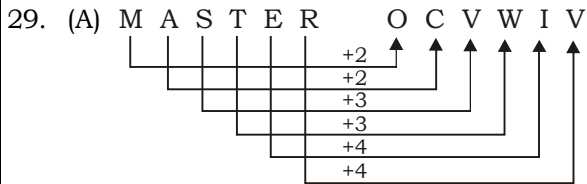
So finally Ramesh is going towards east direction.

10th right

32. (B) MLKJIHGFEDCBA   NOP$\boxed{Q}$RSTUVWXYZ

20th from the last

33. (B)
Aeroplane / Bird / Umbrella
1 ×
2 ✓
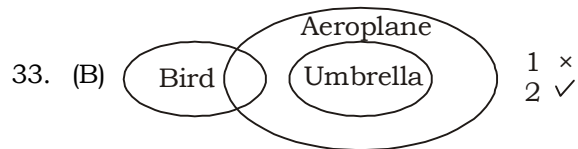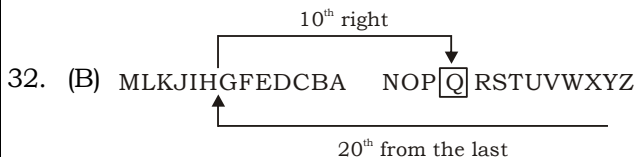
34. (B) The number of ◁▷ figure is each block is increasing by one i.e. 0, 1, 2 and 3.

35. (D) AP**PRE**H**END**

36. (B) Length of the seventh (7th) line
= 3 × 2 × 2 × 2 × 2 × 2 × 2 = 192 cm

37. (A)

38. (D)   **39. (B)**   **40. (B)**

41. (B) As per the question, − = ×, + = +, × = −
Then,
100 − 10 × 1000 + 1000 × 100 × 10
= 100 × 10 − 1000 + 1000 − 100 × 10
(After changing sign as per question)
= 1000 − 1000 + 1000 − 1000
= 2000 − 2000
= 0

42. (B) (16 − 6) × (2 + 6) = 10 × 8 = 80
(9 − 4) × (7 + 6) = 5 × 13 = 65
(13 − 11) × (16 + 8) = 2 × 24 = 48

43. (C) 5 + 3 = 8 + 4 = $\boxed{12}$
12 + 1 = 13
∴ We have $\boxed{? = 12}$

44. (B) Here, we have series of two numbers.
1, 2, 3, 4, 5, 6, and $\boxed{14}$, 15, 16, 17, 18, 19

45. (A)   **46. (D)**

47. (D) 0 × 1 × 2 .... × 9 = 0
Which is none of these

48. (D)   **49. (A)**   **50. (C)**

51. (C) A Mahajanapada is one of the sixteen kingdoms that existed in ancient India from 6th century B.C.E. (Before the Common Era) to 4th century C.E. (Common Era). Ancient Buddhist texts Anguttara Nikaya make reference of sixteen kingdoms which had evolved and flourished in a belt stretching from Gandhara in the northwest to Anga in the eastern part of the Indian subcontinent. Archaeologically, this period corresponds to as Northern Block Polished Ware Culture.

52. (B) **Lothal :** S. R. Rao archaeologist excavated India's top Harappan site Lothal. It is situated in Ahmedabad district in Gujarat. It is supposed to have the earliest dock in the world history. Lothal means 'mound of dead'.
Kalibanga : Mr. Amlanand Ghosh excavated Kalibanga in Rajasthan. Kali

meas block and bangan means bangle. Terocotta bangles are excavated here.

Chanhudaro : N. G. Majumdar excavated Chanhudaro in Sindh, Pakistan. It was the major centre of production for the beautiful seals.

Mohenjodaro : Rakhal Das Banerjee excavated Mohenjodaro in Larkana district of Sind (Pakistan). Important public place of it was Great bath for ritual bathing.

53.(C) Black hole of Calcutta incident took place on 20th June, 1756 in which a number of Europeans were imprisoned in Calcutta and many died because the Nawab of Bengal, Siraj-ud-Daullah, held British prisoners of war after the capture of the Fort William.

54.(D) Baking Soda should not be used while cooking because it destroys number of nutrients, such as Vitamin C, Vitamin D, Riboflavin, Thiamine and essential amino acids.

56.(B) Oxalic acid and Oxalates are useful as reducing agents for photography, bleaching and rust removal.

57.(B) The laser printer in a few years became the dominant mode of printing in various offices. It uses a semiconductor laser and the xerography principle. The laser is focused and scanned across a photoactive Selenium coated drum where it produces a charge pattern which mirrors the material to be printed.

58.(D) NAG is a third generation 'fire-and-forget' anti-tank missile developed in India. It is one of five missile systems developed by Defence Research and Development Organisation (DRDO) under the Integrated Guided Missile Development Programme (IGMDP).

59.(A) The Indian Income Tax is direct and progressive. Progressive tax is the taxing mechanism in which the taxing authority charges more taxes as the income of the taxpayer increases.

60.(C) Terminator technology refers to plants that have been genetically modified to render sterile seeds at harvest. It is also known as Genetic Use Restriction Technologies or GURTs. The Indian Government banned the import of Terminator seeds as it would threaten traditional crops and put the well being of Indian farmers at risk. The technology would have serious implications on the crop biodiversity. It may lead to gradual extinction of traditional varieties. Inserting terminator genes into crops would present them from producing fertile seeds.

61.(B) The Indirect tax in India is a complex system of interconnecting laws and regulations, which includes specific laws of different states. The Indirect taxes levied by the Centre are customs, excise and central sales tax and the major indirect taxes levied by the states and civic bodies are passenger and goods tax, electricity duty and octroi.

62.(B) **Tax Haven :** A country offering very favourable tax laws for foreign businesses and individuals i.e. no tax liability in a politically and economically stable environment. It also provide little or no financial information to foreign tax authorities.

63.(A) The Maya are an indigenous people of Mexico and Central America who have continuously inhabited the lands. They come from the ancient Yucaton city of Mayapan, the last capital of Mayan Kingdom in the post-classic period. Their main occupation was agriculture.

64.(D) **Horse Latitudes :** The latitudes, approximately 30°N and S, forming the edges of the trade-wind belt, characterized by high atmospheric pressure with calms and light variable winds.

65.(D) Rewa is in Madhya Pradesh and is nearest to IST.
IST (Indian Standard Time) is 5 : 30 hours ahead of Coordinated Universal Time (UTC). This time zone is a Standard Time Zone and is used in Asia. Indian Standard Time is a half-hour time zone. Its local time differs by 30 minutes from the usual one-hour time zone interval. This time zone is also called Indian Time.

66.(D) Attorney General of India is appointed by the President of India under Article 76(1) of the Constitution and holds office during the pleasure of the President. He must be a person qualified to be appointed as a Judge of the Supreme Court. He advises the Government of India on legal matters assigned by the President and discharge the functions conferred on him by or under the Constitution or any other law for the time being in force. He shall have the right to audience in all courts in the territory of India.

68.(C) The 61st Amendment Act of 1988 of the Constitution of India, lowered the voting age of elections to the Lok Sabha and to the legislative Assemblies of States from

21 to 18 years. This was done by amending Article 326 of the Constitution,

70.(B) Swang is a popular folk dance theatre in Rajasthan, Haryana, Uttar Pradesh and Malwa region of Madhya Pradesh. It incorporates suitable theatrics and mimicry accompanied by song and dialogue. It is basically dialogue oriented rather than movement-oriented. Religious stories and folk tales are enacted by a group of ten or twelve persons in an open area or an open-air theatre surrounded by the audience.

71.(D) The force between two current carrying wires give rise to the fundamental definition of the Ampere.

77.(D) GDP measures the domestic levels of production whereas GNP measures the levels of production of any person or corporation of a country. So, answer will be (d)

78.(A) Mandla is the Indian State of Madhya Pradesh. The city was the capital of Gond Dynasty. Gond queen, Rani Durgawati ruled Mandla province and fought against Akbar to save her kingdom.

80.(D) States touching the boundary of Mayanmar are Arunachal Pradesh, Nagaland, Manipur and Mizoram.

81.(A) A 'Blind Valley' is a deep, narrow, flat bottomed valley with an abrupt ending. These valleys arise in limestone or Karst landscapes, where a layer of permeable rock lies above an impermeable substrate.

82.(D) B.R. Ambedkar, is the Chairman of Drafting Committee called Fundamental Right to Constitutional Remedies as the heart and soul of the Indian Constitution. According to this right, a person can go to the Supreme Court in case of violation of their Fundamental Rights. According to article 32, there are 5 rights which empower the Supreme Court to enforce the Fundamental right of an individual. They are –
- Habeas Corpus • Mandamus
- Quo Warranto • Certiorari
- Prohibition

87.(A) In 1799, Lord Wellesley brought the censorship of Press Act. The idea was to stop the French from publishing anything which could harm the British in anyway. This Act brought all the newspaper under the government scrutiny before the publication. This Act was later extended in 1807 and covered all kinds of press, publications, newspaper, magazine, books and pamphlets.

90.(A) On September 16, 1932, Mahatma Gandhi began 'Fast into death' to protest British support to a new Indian Constitution that would separate the Indian electorate by caste, thereby segregating the 'untouchables' and ensuring that the social classes would remain unfairly divided.

92.(D) The Indian-American writer Akhil Sharma won second Folio Prize for fiction for a novel named "Family life".

95.(D) Hypoglycemia is also called insulin reaction. It is a condition in which blood glucose level drops too low generally below 70 mg.

96.(C) Incisors grows into tusks of an elephant, which can serve as weapons and as tools for moving objects and digging.

99.(B) Adam Smith observed that the price of diamonds was much higher than that of water even though utility of water is more than that of diamonds. This distinction of puzzle or paradox is based on the difference between marginal utility and total utility. The marginal utility of diamonds is very high and so consumers are willing to pay higher prices for diamods, than for water.

100.(D) The Indian Judiciary, in a number of cases has effectively resorted to the writ of habeas corpus to secure release of a person from illegal detention, thereby protecting their Fundamental Right of life and liberty.

101.(B) $Q = A.V$

$= (A_{semicircle} + A_{rectangle}) \times V$

$= \left(\frac{\pi r^2}{2} + 1.2 \times .6 \right) \times V$

$= \left(\frac{\pi (.6)^2}{2} + 1.2 \times .6 \right) \times 1.25$

$= 1.606 \ m^3/sec.$

102.(D)
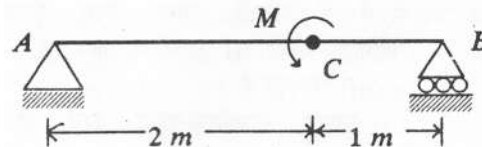
$R_A + R_B = 0$

$\Sigma M_B = 0$

$R_A \times 3 - M = 0$

$R_A = \dfrac{M}{3} \ and \ R_B = -\dfrac{M}{3}$

Maximum shear force = M/3.

103.(D) $U_1 = \dfrac{T^2 L}{2GJ_1}$

$U_2 = \dfrac{T^2 L}{2GJ_2}$

T = Constant

L = Same

G = Constant

$\dfrac{U_1}{U_2} = \dfrac{\left(\dfrac{1}{\dfrac{\pi d_1^4}{32}}\right)}{\dfrac{1}{\dfrac{\pi d_2^4}{32}}} \Rightarrow \left(\dfrac{d_2}{d_1}\right)^4$

104.(D) $T_A = Z_A \times \tau = \dfrac{\pi}{16} \times D^3 \times \tau = \dfrac{\pi}{16} \times 100^3 \times \tau$

$T_B = Z_B \times \tau = \left(\dfrac{\pi}{16D}(D^4 - d^4)\right)\tau = \dfrac{\pi}{16 \times 100}(100^4 - 50^4) \times \tau$

$\therefore \dfrac{T_A}{T_B} \Rightarrow \dfrac{\dfrac{\pi}{16} \times 100^3 \times \tau}{\dfrac{\pi}{16 \times 100}(100^4 - 50^4) \times \tau}$

$\dfrac{T_A}{T_B} \Rightarrow \dfrac{16}{15}$

$T_B = \dfrac{15}{16}T_A$

106.(B) $D_A = 2D_B$

$R_A = 2R_B$

$\dfrac{\delta_A}{\delta_B} = \dfrac{\dfrac{64P(R_A)^3 n}{Gd^4}}{\dfrac{64P(R_B)^3 n}{Gd^4}}$

$\dfrac{\delta_A}{\delta_B} = \dfrac{8}{1}$

$\delta_B = \dfrac{1}{8}\delta_A$

107.(C) $T_1 = 268.3$

C.P = 623.3

$\because$ Change of point

$= T_1 + C.P$

$= 268.3 + 623.3$

$= 981.6$

114.(B) $F_B - mg = 0$

$100 \times V_d = 800 \times (3 \times 2 \times 2)$

$V_d = 9.6m^3$

154.(A) Chainage of function of transition curve

= Chainage of P.C + length of transition curve

= 40000 + 220

= 40220m