

INSTITUTE OF FOREST BIODIVERSITY, HYDERABAD

Name of the Post : Technician (Electrician)

Total Marks : 100

Date of Examination : 09-03-2019 10.00 AM to 1.00 PM

Time Allotted : One Hour Thirty Minutes

HALL TICKET NUMBER :

INSTRUCTIONS

1. Immediately after the commencement of the examination you should check that this booklet does not have any unprinted or torn or missing pages or items, *etc.* If so, get it replaced by a complete test booklet.
2. Please note that it is the candidate's responsibility to fill in the Hall Ticket Number carefully and without any omission or discrepancy at the appropriate place above and also on the answer sheet (OMR sheet) provided to you.
3. This test booklet contains 100 questions (items). Each question is printed only in English. Each question comprises four responses chose most appropriate answer.
4. The serial numbers of question and answer should correspond each other. In any case, choose ONLY ONE response for each item. Marking more than one answer to any question will render it invalid.
5. All questions carry equal marks, and negative marking system is adopted. One third mark will be deducted for each wrong answer.
6. Over writing or erasing etc., to any answer will not be taken into account and rejected.
7. You need to write your answers in the circle provided in the OMR sheet. See that the OMR sheet (answer sheet) do not have any folds or ink dots in between. Completely fill or mark the in the circle using ball point pen only.
8. At the end of exam, hand over the Test Booklet along with OMR sheet to the invigilator without fail.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. Candidates are NOT allowed to leave the examination hall until the completion of the duration of the examination.

Signature of Invigilator

Signature of Candidate

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

General awareness – 20 marks

1. Centre decided to enhance its contribution in the State Disaster Response Fund (SDRF) to ___% from 01.04.2018?
 - A) 80%
 - B) 85%
 - C) 90%
 - D) 95%
2. India has ranked 3rd globally in terms of the number of family owned businesses. This has been revealed in a study conducted by ____?
 - A) UBS
 - B) Credit Suisse
 - C) J P Morgan Chase
 - D) Julius Baer Group
3. The Centre is setting up two Kamdhenu Breeding Centres, one in Andhra Pradesh and the other in _____State for the conservation of indigenous breeds?
 - A) Rajasthan
 - B) Chhattisgarh
 - C) Jharkhand
 - D) Madhya Pradesh
4. Which State has the highest number of People Living with HIV (PLHIV) in India?
 - A) Utter Pradesh
 - B) Maharashtra
 - C) Tamil Nadu
 - D) Gujarat
5. UIDAI has directed banks to ensure daily minimum number of Aadhar enrollments and updations in identified branches should be ____ from 01.01.2019 to 31.03.2019
 - A) 8
 - B) 10
 - C) 12
 - D) 16
6. Reliance Jio has topped the “Change the World” list that ranked companies using the profit motive to help the planet and tackle social problems. This list has been published by_____Magzine?
 - A) Time
 - B) Forbes
 - C) Fortune
 - D) The Economist
7. The Central Government declared the recent floods in Kerala a “Calamity of _____Nature?
 - A) Harsh
 - B) Severe
 - C) Rigorous
 - D) Relentless

8. In Mountainous areas a natural cause for road blocks is often _____?
 - A) Traffic congestion
 - B) Road repairs and construction
 - C) Land slides
 - D) Tree felling
9. Best way to conserve our water resources _____?
 - A) Rain water harvesting
 - B) Sustainable water utilization
 - C) Encourage of Natural regeneration of vegetation
 - D) All above
10. Who among the following got the “Bharat Ratna” award before become the President of India?
 - A) R. Venkat Raman
 - B) Rajendra Prasad
 - C) Zakir Hussain
 - D) V.V. Giri
11. Father of Ecology in India is:
 - A) Ramdev Mishra
 - B) Odum
 - C) Warming
 - D) Ambasht
12. Which of the following Bt crops is being grown in India by the farmers?
 - A) Cotton
 - B) Brinjal
 - C) Soyabean
 - D) Maize
13. The coconut water in the tender coconut fruit is:
 - A) Nuclear cellar form
 - B) Free Nuclear Endosperm
 - C) A Nucleated Kernel
 - D) Cellular form of endosperm
14. Name the fuel used in Nuclear reactor?
 - A) Thorium
 - B) Heavy Water
 - C) Cadmium
 - D) Graphite
15. Name the mechanical power that convert into electric power?
 - A) Motor
 - B) Battery
 - C) Generator
 - D) Switch

16. Among the following which medicine is used for indigestion?
- A) Antibiotic
 - B) Analogistic
 - C) Antacid
 - D) Antiseptic
17. Which metal used in filament in electric bulb?
- A) Copper
 - B) Iron
 - C) Bronze
 - D) Tungsten
18. How many rooms are there in heart of the fish that we grow or we see in rivers?
- A) 13
 - B) 08
 - C) 12
 - D) 02
19. In Brain which part is the “tree of life” which controls sensory and motor actions?
- A) Arbour – Vite
 - B) Small brain
 - C) Vermise
 - D) Cerebellum
20. What is the Latin name of Mercury which is a solid planet located closer to the Sun?
- A) Aram
 - B) Stibium
 - C) Hydrargium
 - D) Plumbum

Mental ability and Reasoning- 20 marks

21. Among the English alphabets which is the 8th letter from your left?
- A) E
 - B) G
 - C) J
 - D) H
22. Among the English alphabets which is the 18th letter from your right?
- A) L
 - B) K
 - C) I
 - D) J
23. Find out odd or different one among the following group?
- A) LNP
 - B) VXZ
 - C) SUW
 - D) BDG

24. As 'Wheal' is related to vehicle similarly 'Clock ' is related ____ ?
- A) Needle
 - B) Nail
 - C) Stick
 - D) Pin
25. If the position of Rajan is 15th from one end and 13th from other end in his class, what is the total number of students in his class?
- A) 28
 - B) 24
 - C) 27
 - D) 29
26. In the class of 40 students, Sanju is at 13th position from the end what is his position from the other end?
- A) 9th
 - B) 12th
 - C) 10th
 - D) 11th
27. Ramesh starting from a fixed point goes 15 kms. Towards North and then, after turning to his right he goes 15 kms. Then he goes 10, 15 and 15 m turning to his left each time. How far is he from his starting point?
- A) 5 m
 - B) 10 m
 - C) 20 m
 - D) 15 m
28. Sonalika goes 12 kms. towards North from a fixed point and then she goes 8 kms. towards South from there. In the end she goes 3 kms towards east. How far and in what direction is she from her starting point?
- A) 7 kms. East
 - B) 5 kms West
 - C) 7 kms. West
 - D) 5 kms. Northeast
29. Kamini says Rajeev's grandfather is the only son of my father. How is Kamini related to Rajeev?
- A) Daughter
 - B) Sister
 - C) Niece
 - D) Grandmother
30. If X means -, - means X, + means \div and \div means + then ____
- $$13 - 12 \div 400 + 20 \times 100 = \underline{\quad?}$$
- A) $\frac{1}{1760}$
 - B) 76
 - C) 176
 - D) 186

In each of the following questions 4 alternatives are given. One of these 4 shows the most essential component. Hence find out the essential component/Answer.

31. In a desert it is necessary_____?
A) Wind
B) Sand
C) Watermelon
D) Heat
32. Danger always involves_____?
A) Help
B) Attack
C) Fear
D) Enemy
33. Identify the odd one out
A) Asia
B) Australia
C) America
D) South Africa
34. If the difference of two numbers is 5689, and their sum is 9281. Find the two numbers
A) 7485 and 1796
B) 7686 and 1796
C) 7885 and 1796
D) 7485 and 1696
35. Round the number 19682 to the nearest hundred
A) 19600
B) 19700
C) 19650
D) 19750
36. Which of the following is an improper fraction?
A) $\frac{5}{8}$
B) $\frac{3}{4}$
C) $\frac{7}{6}$
D) $\frac{7}{9}$
37. The number of vertices of a cuboid is
A) 6
B) 8
C) 12
D) 18
38. How many days will be there in two non-leap and one leap years?
A) 1095
B) 1066
C) 1096
D) 1098
39. The perimeter of a rectangle is 144m and its length is twice of its breadth. Find the length of the rectangle.
A) 96m
B) 58m
C) 48m
D) 44m

40. There are 44 boys and 44 girls. They sit in a row randomly. What is the chance that all the girls do not sit together?
- A) 14/13
 - B) 12/14
 - C) 13/14
 - D) 14/12

General English – 20 marks

Direction: Each of the following questions has a word or group of words missing. Five alternative words are given. You have to find out which one of them would make the sentence grammatical correct and meaningful and show your appropriate answer.

41. We had to put up with much ill treatment _____ his hands
- A) With
 - B) By
 - C) In
 - D) Into
42. If I _____ learned I should have been respected.
- A) Was
 - B) Were
 - C) Would be
 - D) Will be
43. This matter is irrelevant _____ the topic for discussion.
- A) About
 - B) Over
 - C) To
 - D) On

Directions: Below are given words each followed by five choices. Pick out the word or expression that is **closest** in meaning.

44. Predominantly _____
- A) Priority
 - B) Mainly
 - C) Prediction
 - D) Hopefully
45. Emancipation _____
- A) Enslavement
 - B) Futility
 - C) Independence
 - D) Liberation

Directions: Below are given words each followed by five choices. Pick out the word or expression which is **opposite** in meaning.

46. Rural

- A) Rustic
- B) Pastoral
- C) Obtrude
- D) Urban

47. Prosperity

- A) Hardship
- B) Poverty
- C) Rusticate
- D) Propensity

Directions: Each of the following sentences or phrases is followed by five alternatives one of which best describes in brief the meaning of the sentence or phrase.

48. Trees which lose the leaves annually

- A) Vibrant
- B) Veneral
- C) Deciduous
- D) Foliage

49. A person who is unable to pay his debts or honour his commitments

- A) Bankrupt
- B) Insolvent
- C) Dishonorable
- D) Persona non grata

Directions: In each of the following questions the 1st and the last parts of the sentence are numbered as 1 & 6. The rest of the sentence is split into four parts and named P, Q, R and S. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct. Mark the correct answer in the answer –sheet.

50. 1. It would not be possible

- P. to reduce the number of terrorist events
- Q. to wipe out terrorist activities altogether
- R. the world could Endeavour
- S. although the Governments all over

6. according to an expert in international terrorism from the United States.

- A) QSRP
- B) PQRS
- C) PSRQ
- D) RPQS

51. 1. By the turn of the century, the railways

- P. 6,500 diesel locomotives
- Q. will have phased out
- R. and have an estimated

- S. all its steam locomotives
6. Operating on its network.
A) PSQR
B) RPQS
C) QSRP
D) QPSR

Directions: In the following passages there are three blanks each of which has been numbered. These numbers are printed below the passage and against each five word/group of words are suggested, one of which fits in the blank appropriately. Find out the appropriate word/group of words.

52. The children were sitting on a ledge in the storeroom, out of the leopard's reach. The boy, Sree got the idea of _____ through the ventilator which was near the ledge.
A) Running
B) Revealing
C) Providing
D) Escaping

Directions: in each of the following questions you are to choose, from the given words below the two sentences, that word which has the same meaning and can be used in the same context as the italicized parts in both the sentence.

53. I. I was *willing* to accept the first offer made by the shop-keeper.
II. The tree was *leaning* towards the building.
A) Bent
B) Inclined
C) Sloped
D) Forced
54. I. He had a very *difficult* period during his sickness
II. Prabhu's father advised him that IAS was a career worth *attempting*.
A) Experimenting
B) Contending
C) Intending
D) Trying

Directions: Change the following active voice into passive voice

55. He reads a book
A) A book is read by him
B) book is being read by him
C) The book is being read by him
D) The book is reads by him

56. Ram Writes letters

- A) Letters were wrote by Ram
- B) Letters are written by Ram
- C) Letters are write by Ram
- D) Letters were written by Ram

Directions: Interchange between “Too’ and ‘So’

57. He is too cleaver to be easily deceived.

- A) He is so clever that he cannot be easily deceived
- B) He is very clever so that he cannot be easily deceived
- C) He is so clever that he could not be easily deceived
- D) He is very much clever so that he could not be easily deceived

Directions: Conversion of Simple Sentences to Compound Sentences of the following sentences

58. He died a brave death leaving an example in the world

- A) He died a brave death and kept an example in the world
- B) He died a brave dead and left an example in the world
- C) He died a brave death and left an example in the world
- D) He dead a brave death and kept an example in the world

59. Beware pick-pockets.

- A) Out
- B) Of
- C) Off
- D) Out of

60. Why did you confide your secrets..... a stranger?

- A) With
- B) In
- C) Into
- D) To

Arithmetic – 20 marks

61. Multiply 10101by 13?

- A) 286
- B) 2197
- C) 131313
- D) 334048

62. Find the area of rectangle of sites 22 cms and 13 cms?

- A) 304928
- B) 423397
- C) 169
- D) 286

63. The length of a plot is 73 m and breadth of the plot is 43 m find out the area of the plot?
- A) 2176 m
 - B) 1449 m
 - C) 3139 m
 - D) 2625 m
64. Divide 1874 by 92?
- A) 20 remainder 34
 - B) 34 remainder 12
 - C) 170 remainder 14
 - D) 74 remainder 50
65. Divide 4585 by 35 ?
- A) 34 remainder 12
 - B) 74 remainder 50
 - C) 131 remainder 0
 - D) 43 remainder 51
66. The square of 7 is ___?
- A) 81
 - B) 36
 - C) 64
 - D) 49
67. The square of 0 is ___?
- A) 81
 - B) 09
 - C) 00
 - D) 36
68. The square of 9797 is ___?
- A) 95981209
 - B) 13535041
 - C) 4937284
 - D) 43099225
69. The square of 9999 is ___?
- A) 4937284
 - B) 13220496
 - C) 99980001
 - D) 63393444
70. What is the largest number of 4 digits which is divided by 6, 9, 12, 15, or 18 leaving a remainder 1 in each case?
- A) 9901
 - B) 9899
 - C) 1081
 - D) 9673

71. 30% of A's salary is equal to 20% of $\frac{3}{5}$ th of B's salary, if B's salary is Rs.2500/- find out the A's salary?
- A) Rs.1880/-
 - B) Rs.1000/-
 - C) Rs.960/-
 - D) Rs.2160/-
72. How much % is 4×24 of 128 ?
- A) 120
 - B) 75
 - C) 105
 - D) 96
73. If $\frac{3}{5}$ part of a work is done by 12 men in 10 days, how many men will complete the whole work in 20 days?
- A) 9
 - B) 8
 - C) 10
 - D) 7
74. A can do a work in 9 days, B in 10 days and C in 15 days. B & C together worked for 2 days. If the remaining work is done by A then how many days does he take?
- A) 13
 - B) 9
 - C) 10
 - D) 16
75. The train A is 280 m long while B is 350 m long. The speeds of A & B trains are 38 km/hr and 25 km/hr respectively. If they are going in opposite direction in how much time will A pass B?
- A) 33 sec.
 - B) 34 sec.
 - C) 35 sec.
 - D) 36 sec.
76. In a flight of 600 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 km/hr and the time of flight increased by 30 minutes. The duration of the flight is:
- A) 1 hour
 - B) 2 hours
 - C) 3 hours
 - D) 4 hours
77. In covering a distance of 30 km, Celine takes 2 hours more than Sam. If Celine doubles his speed, then he would take 1 hour less than Sam. Celine's speed is:Top of Form
- A) 5 kmph
 - B) 6 kmph
 - C) 6.25 kmph
 - D) 7.5 kmph

78. The sum of the ages of 3 people A, B and C is 90 years. What would be the total of their ages 4 years back?
- A) 74 years
 - B) 78 years
 - C) 86 years
 - D) 80 years
79. Some friends planned on a leisure trip where they had planned Rs.96 on eatables. 4 of them did not come. So the rest of them had to pay Rs. 4 each extra. The number of people who turned up on the trip was
- A) 8
 - B) 12
 - C) 16
 - D) 24
80. Cost of a pineapple will be Rs. 7 each whereas a watermelon will cost Rs. 5 each. A man spends a total of Rs. 38 on these fruits. The number of pineapples that he purchased were:
- A) 2
 - B) 3
 - C) 4
 - D) Data inadequate

Technical section: Marks :20

81. Which of the following is the SI Unit of Electric Current?
- A) Ohm
 - B) Ampere
 - C) Volt
 - D) Faraday
82. Which instrument is used for measuring electric potential?
- A) Ammeter
 - B) Galvanometer
 - C) Voltmeter
 - D) Potentiometer
83. Resistivity of a wire depends on
- A) length
 - B) material
 - C) cross section area
 - D) none of the above.
84. Resistance of a wire is r ohms. The wire is stretched to double its length, then its resistance in ohms is
- A) $r / 2$
 - B) $4 r$
 - C) $2 r$
 - D) $r / 4$.

85. The charge on an electron is known to be 1.6×10^{-19} coulomb. In a circuit the current flowing is 1 A. How many electrons will be flowing through the circuit in a second?

- A) 1.6×10^{19}
- B) 1.6×10^{-19}
- C) 0.625×10^{19}
- D) 0.625×10^{12} .

86. Two bulbs marked 200 watt-250 volts and 100 watt-250 volts are joined in series to 250 volts supply. Power consumed in circuit is

- A) 33 watt
- B) 67 watt
- C) 100 watt
- D) 300 watt.

87. Ampere second could be the unit of

- A) power
- B) conductance
- C) energy
- D) charge.

88. Which of the following is not the same as watt?

- A) joule/sec
- B) amperes/volt
- C) amperes x volts
- D) (amperes)² x ohm.

89. One kilowatt hour of electrical energy is the same as

- A) 36×10^5 watts
- B) 36×10^8 ergs
- C) 36×10^5 joules
- D) 36×10^5 B.T.U.

90. An electric current of 5 A is same as

- A) 5 J / C
- B) 5 V / C
- C) 5 C / sec
- D) 5 w / sec.

91. The value of the following is given by 100 (kilo ampere) x (micro ampere) 100 milli ampere * 10 ampere

- A) 0.001 A
- B) 0.1 A
- C) 1 A
- D) 10A.

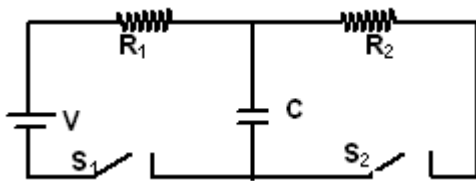
92. A circuit contains two un-equal resistances in parallel

- A) current is same in both
- B) large current flows in larger resistor
- C) potential difference across each is same
- D) smaller resistance has smaller conductance.

93. By increasing the temperature the resistance of a conductor

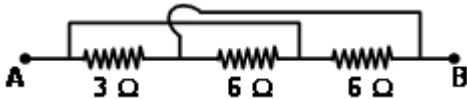
- A) increases.
- B) decreases.
- C) remains constant.
- D) initially increases then decreases.

94. A battery of emf V volts, resistance R_1 & R_2 , a condenser C and switches S_1 and S_2 are connected in a circuit as shown in figure. The capacitor C gets fully charged to V volts when



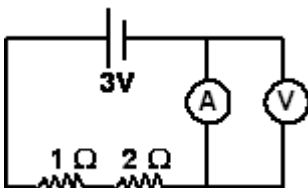
- A) S_1 & S_2 are both closed
- B) S_1 & S_2 are both open
- C) S_1 closed and S_2 open
- D) S_2 closed & S_1 open.

95. The equivalent resistance of a circuit between A and B is



- A) 3Ω
- B) zero.
- C) 6Ω
- D) $3/2 \Omega$

96. In the circuit shown in figure, the voltmeter reading would be

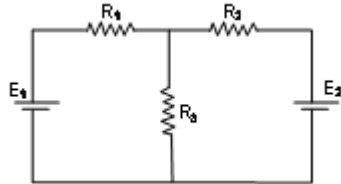


- A) 0 volt.
- B) 0.5 volt.
- C) 1 volt.
- D) 2 volt.

97. If a copper wire is stretched to make it 0.1 % longer. The percentage change in its resistance is

- A) 0.2 % increase
- B) 0.2% decrease
- C) 0.1 % increase
- D) 0.1 % decrease

98. In the circuit shown in figure $E_1 = 7V$, $E_2 = 7V$, $R_1 = R_2 = 1 \Omega$ and $R_3 = 3 \Omega$ respectively. The current through the resistance R_3 is



- A) 2A
- B) 3.5A
- C) 1.75A
- D) none of these

99. A cell of e.m.f E and internal resistance r is connected across a resistance r . The potential difference between the terminals of the cell must be

- A) E
- B) $E/2$
- C) $E/4$
- D) $3E/2$

100. A conductor carries a current of 50mA if the area of cross-section of the conductor is 50 mm^2 then value of the current density in Am^{-2} is

- A) 0.5
- B) 1
- C) 10-1
- D) 3/10

