

INSTITUTE OF FOREST BIODIVERSITY, HYDERABAD

Name of the Post : **Technician (Automotive)**
Total Marks : **100**
Date of Examination : **09-03-2019**
Time Allotted : **Three hours** 10.00 AM to 1.00 PM

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 provided to you.
3. This test booklet contains **100** questions (items). Question paper is printed only in **English**. Each question comprises four responses, choose most appropriate answer.
4. The serial number of the answer should correspond to the serial number of the question in question paper. In any case, choose **ONLY ONE** response for each question. More than one answer to any question will render your answer invalid.
5. All questions carry equal marks, and **negative marking system is adopted. One third mark will be deducted for each wrong or incorrect answer.**
6. **Over writing or erasing etc., disqualify the answer.**
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. Answer should be marked by filling the circle completely with ball point pen only.
8. At the end of examination, you should **handover** the **TestBooklet** 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. Which of the following launched “Library on Wheels” on 15.10.2018?
 - A) South East Central Railway
 - B) South Central Railway
 - C) Western Railway
 - D) Central Railway
2. Air Pollution Control Device “WAYU” launched by the Environment Ministry of Govt. of India in September 2018 is Wind _____ purifying unit?
 - A) Assimilation
 - B) Amelioration
 - C) Acculturation
 - D) Augmentation
3. US Agency for international Development (USAID) has announced the formation of an alliance with India in September 2018 to combat which disease in India?
 - A) Malaria
 - B) Swine Flu
 - C) Tuberculosis
 - D) Japanese Encephalitis
4. 51% State in GSTN (Goods & Services Tax Network) is currently owned by five private financial institutions. These are HDFC Mutual Fund, ICICI Bank, NSE strategic Investment, LIC Housing Finance and _____?
 - A) RBI
 - B) IFCI
 - C) HDFC Bank
 - D) Axis Bank
5. September 15th has been celebrated as Engineer’s Day in India to observe the birth anniversary of _____?
 - A) Sir C.V. Raman
 - B) Vikram Sarabhai
 - C) Sir Mokshagundam Viswaswarayya
 - D) Homi Jehangir Bhabha
6. Which of the following cities will host the 15th Pravasi Bharateeya Diwas 2019?
 - A) Kanpur
 - B) Varanasi
 - C) Lucknow
 - D) Allahabad
7. The most important strategy for the Conservation of Biodiversity together with traditional Human Life is the establishment of _____?
 - A) Biosphere Reserves
 - B) Botanical Gardens
 - C) National Parks
 - D) Wildlife Sanctuaries

8. Which one of the following is the best description of the term “Ecosystem”?
- A) A community of organisms interacting with one another
 - B) That part of the Earth which is inhabited living organisms
 - C) A community of organisms together with the environment in which they live
 - D) The “Flora and Fauna “ of a geographical area
9. The Nobel Peace Prize is awarded in which of the following cities?
- A) Brussels
 - B) Geneva
 - C) Oslo
 - D) Stockholm
10. In the context of the Indian defence, what is “Dhruv”?
- A) Aircraft-carrying warship
 - B) Missile-carrying submarine
 - C) Advanced light helicopter
 - D) Intercontinental ballistic missile
11. Indian constitution ensures right to live, speech, liberty etc to her citizens and some extend other country people too. Violation of which Fundamental Right (FR) anyone can approach Supreme Court for justice. These fundamental rights are always -----?
- A) Absolute to every human
 - B) Have reasonable restriction
 - C) Prohibition takes place with situation on all FR
 - D) Selective restriction of FR ensured by Supreme Court
12. Banks and financial institutions are allowed to retain some of the reserves in order to maintain and manage their daily and emergency needs. This is called as-----?
- A) Statutory Liquidity Ratio (SLR)
 - B) Current Reserve Ratio (CRR)
 - C) MAT
 - D) REVERSE REPO (RR)
13. This is a special tax imposed by on any corporate body even though their Balance of Payment (BoP) sheet is negative or zero still tax has to be paid. Such taxes are called?
- A) Surcharge
 - B) Cess
 - C) Minimum Alternate Tax
 - D) GST
14. Friendship dam is one which was constructed by Indian government to our neighbouring country in order to promote brotherhood among them and keep the humanity high. This dam is located in -----?
- A) Sri Lanka
 - B) Bangladesh
 - C) Bhutan
 - D) Afghanistan

15. There are new national high ways recently released by government of India. According to that odd and even numbers are designated to as -----and -----?
- A) East to West and North to South
 - B) West to East and South to North
 - C) More populated area to less populated area
 - D) Eastern Coast to Western Coast.
16. An Endanger species which is located only in Western Ghats of Kerala and Tamil Nadu. They are arboreal in nature and mostly found in the top canopy. Their only problem is degradation of forest cover by human or other ways. Which one it is?
- A) Snow Leopard
 - B) Lion tailed macaque
 - C) Flying squirrel
 - D) Tree toad
17. In which city was 102nd Indian Science Congress held in 2015?
- A) Mumbai
 - B) Kolkata
 - C) Gandhinagar
 - D) New Delhi
18. The member countries of IBSA Dialogue Forum are_____.
- A) India, Brazil and South Africa
 - B) India, Britain and Spain
 - C) Israel, Brazil and Sweden
 - D) India, Bangladesh and South Africa
19. Who was the first woman to be appointed the governor of Uttar Pradesh?
- A) Sucheta Kripalani
 - B) Sarojini Naidu
 - C) Vijaya Laxmi Pandit
 - D) Indira Gandhi
20. Who is known as father of Local Self-government ?
- A) Bal Gangadhar Tilak
 - B) Sardar Patel
 - C) Lord Ripon
 - D) Nagarjuna

Mental ability and reasoning – 20 marks

21. $466 + \underline{\quad} - 212 = 1019$ find out the missing number?
- A) 355
 - B) 450
 - C) 765
 - D) 432

21. Which word will first come in the dictionary from the following two words- Presence and Present?
- A) P
B) C
C) N
D) E
22. As 'magazine' is related to 'editor' in the same way 'drama' is related to ___?
- A) Hero
B) Heroine
C) Co-Actor
D) None of these
23. As 'Steel' is related to the 'Factory' in the same way 'Wheat' is related to ___?
- A) Field
B) Sky
C) Godown
D) Market
24. In a row of ladies Manorama is at 20th from the right and Kantha is 10th from the left. When they interchange their positions Manorama becomes 25th from the right. Then what is the total number of ladies in the row?
- A) 35
B) 34
C) 44
D) 24
25. How many numbers are there from 5 to 100 divisible by 3 and either unit or 10th digit are both include 3?
- A) 10
B) 8
C) 6
D) Less than 6
26. How many 4's are there in the following number-series which are preceded by 5 but not followed by 7?: **2 3 4 2 4 3 4 2 5 4 7 3 2 4 3 1 9 2 5 4 7 5 4 7 2 3 4 5 2 9 5 4 6**
- A) 1
B) 2
C) 3
D) 4
27. If + means -, - means x, x means ÷ and ÷ means +, then ___
 $44 \times 4 \div 7 + 8 - 2 = \underline{\quad}$?
- A) 3
B) -5
C) 35
D) 16

Direction: In each of the following questions 4 alternatives are given. One of the 4 each most essential component. Find out correct essential component?

28. It is necessary in Agriculture _____
- A) Labour
 - B) Land
 - C) Water
 - D) Seed
29. Disclosure always involves _____?
- A) Agents
 - B) Display
 - C) Exposition
 - D) Demonstration
30. The average 64 innings of a cricket player is 62 runs, his maximum score is 182 runs more than his minimum score, apart from the above two innings his average for the remaining innings is 60 runs. Accordingly what is the maximum score of that player?
- A) 180 runs
 - B) 209 runs
 - C) 212 runs
 - D) 214 runs
31. Arrange the words given below in a meaningful sequence.
- 1.Presentation 2.Recommendation 3. Arrival 4.Discussion 5.Introduction
- A) 5,3,4,1,2
 - B) 3,5,4,2,1
 - C) 3,5,1,4,2
 - D) 5,3,1,2,4
32. How many pairs of letters are there in the word "CASTRAPHONE" which have as many letters between them in the word as in the alphabet?
- A) 3
 - B) 4
 - C) 5
 - D) 6
33. If South-East becomes North, North-East becomes West and so on. What will West become?
- A) North-East
 - B) North-West
 - C) South-East
 - D) South-West
34. If the first and second letters in the word 'DEPRESSION' were interchanged, also the third and the fourth letters, the fifth and the sixth letters and so on, which of the following would be the seventh letter from the right ?
- A) R
 - B) O
 - C) S
 - D) P

35. Find the odd one out
- A) crusade
 - B) campaign
 - C) expedition
 - D) cruise
36. How many times in a day, are the hands of a clock in straight line but opposite in direction?
- A) 18
 - B) 22
 - C) 26
 - D) 28
37. **Statement:** The people in waiting list finally got the reservation in the Rajdhani Express.
- Conclusion:**
- A) The passengers in waiting list generally get the reservation in the Rajdhani Express very toughly.
 - B) The no. of berths available in the Rajdhani Express are less than the expected.
39. Find the missing number in the series?
4, 18, ?, 100, 180, 294, 448
- A) 48
 - B) 50
 - C) 58
 - D) 60
40. How many meaningful English words can be formed with the letters ESRO?
- A) None
 - B) One
 - C) Two
 - D) Three

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. Although it was a new dress he was too_____ to fit into it
- A) Eager
 - B) Plump
 - C) Complacent
 - D) Fat

42. How funny he _____ in this dress

- A) Sees
- B) Watches
- C) Witnesses
- D) Looks

Directions: Which of the following is most nearly the **same in meaning** as the word printed in bold.

43. Untimely:

- A) Prematurely
- B) Quick
- C) Timeless
- D) Eternal

44. To Do:

- A) To construct
- B) To build
- C) To follow
- D) To carryout

45. Keep:

- A) Withhold
- B) Preserve
- C) Save
- D) Continue

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

46. Allow:

- A) Permit
- B) Forbid
- C) Avoid
- D) Recover

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

47. Voluntary renouncement of the throne by a king__

- A) Resignation
- B) Renunciation
- C) Coronation
- D) Abdication

48. Animals which can live only in water__

- A) Aquatic
- B) Amphibian
- C) Dinosaur
- D) Crocodile

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.

49. 1. By all standards,
P. belonging to this district
Q. Particularly to those
R. innocent people of this hilly state
S. nature's punishment to the
6. has been inordinately cruel.
A) SRQP
B) PRQS
C) RPSQ
D) SQRP

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.

50. _____ the leopard's heavy body crashed into it.
A) Against
B) From
C) As
D) For
51. He ran outside again _____ a ladder and leaned it
A) Fetched
B) Detached
C) Climbed
D) Posted
52. _____ the wall under the ventilators. His sister too came through the ventilator.
A) Along
B) In
C) Besides
D) Against

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. The youth are the *store –house* of all that is vital and strength-giving in life.
II. Literature is an imperishable and veritable *arsenal* where all weapons of wit and irony which are used to correct the faults and foibles of the world are stored.
A) Repository
B) Godown
C) Collection
D) Depository

Directions: Change the following active voice into passive voice

54. Sita has written a letter
- A) A letter has been written by Sita
 - B) Sita writes a letter
 - C) Sita wrote a letter
 - D) Sita written a letter
55. Mohan has read many books
- A) Many books had been read by Mohan
 - B) Many books were read by Mohan
 - C) Many books are read by Mohan
 - D) Many books have been read by Mohan

Directions: Interchange between ‘Too’ and ‘So’

56. He speaks too fast to be understood
- A) He has spoken so fast no body understand
 - B) He speaks so fast that one cannot understand
 - C) He speak so fast none could understood
 - D) He has speaks so fast that one cannot understand
57. When the Principal entered the class, a student..... on the blackboard.
- A) Wrote
 - B) was writing
 - C) writes
 - D) is writing
58. In each of the following questions, find the correctly spelt word.
1. Reannaisance 2. Renaissance 3. Rennaisance 4. Renaissance
- A) 1
 - B) 2
 - C) 3
 - D) 4
59. The boy 1. with big blue eyes 2. watched him 3. and he never said a word
4. that had an uncanny cold fire in them
- A) 2143
 - B) 1243
 - C) 1234
 - D) 2314
60. Select Correct Word
- A) Iminent
 - B) Imminent
 - C) Iminnent
 - D) Imineent

Arithmetic – 20 marks

61. Multiply 17123 by 234?
A) 23963013
B) 18877769
C) 13576642
D) 4006782
62. The area of a plot measured as length X breadth, If the length and breadth of the plot is 96 m x 56 m. respectively. Find out the area of the plot?
A) 2236 m.
B) 5376 m.
C) 3449 m.
D) None of these
63. Find out the square of 54?
A) 2601
B) 2500
C) 3481
D) 2916
64. Find out the cube of 97?
A) 300763
B) 103823
C) 912673
D) 636056
65. What will be the sum of all odd numbers between 30 and 50?
A) 625
B) 400
C) 225
D) 500
66. For which of the following values n, the number $a^n + B^n$ is exactly divisible by (a + b)?
A) 732
B) 416
C) 709
D) 1208
67. When a number is divided 8 it leaves 6 has remainder. If the number is divided by 7 it leaves 5 as remainder. What is that number?
A) 54
B) 35
C) 37
D) 51

68. A lady consumes 27 kg. fuel per week in which $\frac{2}{5}$ part is wood, and the remaining is coal. If there are 52 weeks in a year then how much coal is used in whole year?
- A) 468 kgs.
 - B) 432 kgs.
 - C) 470 kgs.
 - D) 471 kgs.
69. Price of an article is reduced by 20%. To bring the price to the original how much increase will be done in its cost?
- A) 12.5%
 - B) 20%
 - C) 25%
 - D) 37.5%
70. Ram and Mohan can complete a work in 12 days, while Mohan and Promod in 15 days. If Ram works twice as much as Promod then how long would Mohan take to complete the work?
- A) 25 days
 - B) 22 days
 - C) 20 days
 - D) 24 days
71. Two pipes would fill a cistern in 32 and 24 minutes respectively. Both the pipes being opened. When the second pipe must be turned off, so that the cistern may be just filled in 16 minutes?
- A) 12 minutes
 - B) 8 minutes
 - C) 7 minutes
 - D) 6 minutes
72. Two guns were fired from the same place at an interval of 10 minutes and 30 sec., but a person in the train approaching the place hears the second shot 10 minutes after the first. The speed of the train came by (km/hr.) supposing that should travels at 330 metres per second, is ____ ?
- A) 111.80
 - B) 59.4
 - C) 58.6
 - D) 19.8
73. A boat covers 12kms. Upstream and 18kms. Downstream in 3 hours while it covers 36 kms. Upstream and 24 kms. Downstream in $6\frac{1}{2}$ hours, what is the speed of the water flow?
- A) 1.5 km/hr
 - B) 1 km/hr
 - C) 2 km/hr
 - D) 2.5 km/hr

74. Annual Income of Amit and Venu are in the ratio of 3:2 while the ratio of their expenditures are 5:3. If the end of the year each saves Rs.1000/- what is the Annual Income of Amit?
- A) Rs.9000/-
 - B) Rs.8000/-
 - C) Rs.7000/-
 - D) Rs.6000/-
75. Anil started a business with Rs.75,000/-. After 4 months Amit also joined him with Rs.1,12,500/-. If the end of the year the total profit is Rs.22,500/-, what is Amit's share in Rs._____?
- A) Rs.7500/-
 - B) Rs.11250/-
 - C) Rs.13500/-
 - D) Rs.15000/-
76. 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:
- A) 5 kmph
 - B) 6 kmph
 - C) 6.25 kmph
 - D) 7.5 kmph
77. A farmer travelled a distance of 61 km in 9 hours. He travelled partly on foot @ 4 km/hr and partly on bicycle @ 9 km/hr. The distance travelled on foot is:
- A) 14 km
 - B) 15 km
 - C) 16 km
 - D) 17 km
78. A man complete a journey in 10 hours. He travels first half of the journey at the rate of 21 km/hr and second half at the rate of 24 km/hr. Find the total journey in km.
- A) 220 km
 - B) 224 km
 - C) 230 km
 - D) 234 km
79. A man on tour travels first 160 km at 64 km/hr and the next 160 km at 80 km/hr. The average speed for the first 320 km of the tour is:
- A) 35.55 km/hr
 - B) 36 km/hr
 - C) 71.11 km/hr
 - D) 71 km/hr
80. A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour?
- A) 3.6
 - B) 7.2
 - C) 8.4
 - D) 10

Technical marks – 20 marks

81. The amount of heat removed from the castings is dependent on the amount of superheating in the casting.
- A) True
 - B) False
82. Which of the following metal-mould interfaces show the divergent nature of heat flow from the casting material?
- A) Concave
 - B) Square plane
 - C) Rectangular plane
 - D) Convex
83. In solidification of large casting in an insulating mould, precise calculations are made for the analysis of freezing time of the complex contours of casting.
- A) True
 - B) False
84. Which of the following is not an important condition for preventive maintenance?
- A) Size
 - B) Age
 - C) Location
 - D) Oils used
85. Which of the following is not counted among a safety equipment?
- A) Vacuum reliever
 - B) Alarms
 - C) Flashback arresters
 - D) Temperature reliever
86. Which of the following is not a material handling equipment?
- A) Cranes
 - B) Lifts
 - C) Tongs
 - D) Hoists
87. Which of the following materials is not used as a process equipment?
- A) Furnace
 - B) Compressor
 - C) Pump
 - D) Generator

88. Which of the following are not counted among periodic inspection?
- A) Tear downs
 - B) Overhauls
 - C) Oil burnings
 - D) Replacement of parts
89. Frequency of inspection is decided on the basis of overloading.
- A) True
 - B) False
90. The temperature indicating instrument in vehicles indicates the temperature of
- A) Engine piston
 - B) Engine cylinder
 - C) Lubricating oil
 - D) Engine coolant
91. The frequency of flashing of light per minute in a direction (side turn) indicator is about
- A) 9
 - B) 90
 - C) 900
 - D) 9000
92. Thinner is added to the paint in order to
- A) make pigments and resin mix easily
 - B) make paint film hard
 - C) optimise its viscosity
 - D) none of these
93. The ease with which petrol vapourizes is called its
- A) oxidation
 - B) octane number
 - C) volatility
 - D) cetane number
94. A four-cylinder engine has a capacity of 2.4 litres. The swept volume of one cylinder is
- A) 400 cm^3
 - B) 600 cm^3
 - C) 1200 cm^3
 - D) 2400 cm^3
95. An imbalance wheel during vehicle operation
- A) Makes large noise when its heavy point hits the road surface
 - B) Deflects in the vehicle's longitudinal direction
 - C) Bounces vertically or deflects from side to side (as seen from front or rear)
 - D) Creates a standing wave
96. Two advantages of using helical gears rather than spur gears in a transmission system are
- A) Strength and cost
 - B) Strength and less end thrust
 - C) Noise level and strength
 - D) Noise level and economy

97. The battery is an electrochemical device, which means battery
- A) Makes chemicals by mechanical means
 - B) Uses chemical action to provide electricity
 - C) Has curved plates instead of flat plates
 - D) Does not use an electrolyte
98. An overinflated tyre will wear the tread most near the
- A) Edges
 - B) Corners
 - C) Centre
 - D) None of these
- 99). The advantage of tubeless tyre over tube type tyre is
- A) Slow air leakage
 - B) Better fuel efficiency
 - C) Less chances of running flat
 - D) All of these
- 100). Petrol that detonates easily is called
- A) High octane petrol
 - B) Low Octane petrol
 - C) Unleaded petrol
 - D) Blended fuel