

Seat No.

Total No. of Pages : 26

P.G. Re Entrance Examination, 2024**M. Tech. (Rural Technology)****Subject Code : 71140**

Day and Date : Friday, 28-Jun-2024**Total Marks : 100****Time : 10.30 am to 12.00 pm**

Instructions :

- 1) All questions are compulsory.
 - 2) Each question carries 1 mark.
 - 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
 - 4) Follow the instructions given on OMR sheet.
 - 5) Rough work shall be done on the sheet provided at the end of question paper.
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1. Exposure to sunlight helps a person improve his health because
 - a. the infrared light kills bacteria in the body
 - b. resistance power increases
 - c. the pigment cells in the skin get stimulated and produce a healthy tan
 - d. the ultraviolet rays convert skin oil into vitamin D
2. FRS stands for
 - a. Fellow Research System
 - b. Federation of Regulation Society
 - c. Fellow of Royal Society
 - d. None of above

3. Durand Cup is associated with the game of
 - a. Cricket
 - b. Football
 - c. Hockey
 - d. Volleyball
4. The chief constituent of gobar gas is
 - a. ethane
 - b. methane
 - c. hydrogen
 - d. carbon dioxide
5. The chief purpose of crop rotation is to check the loss of top soil
 - a. by water erosion
 - b. by wind erosion
 - c. by weathering
 - d. of its mineral content
6. ICICI is name of
 - a. Chemical Industry
 - b. financial institution
 - c. corporation
 - d. bureau

7. A nozzle is said to be a convergent nozzle
- a. when the cross-section of the nozzle increases continuously from entrance to exit
 - b. when the cross-section of the nozzle decreases continuously from entrance to exit
 - c. when the cross-section of the nozzle first decreases from entrance to throat and then increases from its throat to exit
 - d. none of the above
8. If you used 400 W of power for 30 h, you have used
- a. 1.3 kWh
 - b. 13.3 kWh
 - c. 1.2 kWh
 - d. 12 kWh
9. A reaction of cement with water is known as
- a. Hardening
 - b. Tempering
 - c. Curing
 - d. None of the above
10. The purpose of choke in tube light is
- a. To decrease the current
 - b. To increase the current
 - c. To decrease the voltage momentarily
 - d. To increase the voltage momentarily

11. The famous Vidyasagar Setu is located in which among the following cities?
- a. Patna
 - b. Kolkata
 - c. Lucknow
 - d. Chennai
12. Amravati, Bhavani, Hemavati and Kabini are tributaries of which of the following river?
- a. Godavari
 - b. Krishna
 - c. Kaveri
 - d. Mahanadi
13. Which Union Ministry launched the 'YUVA PORTAL' to identify potential young Start- Ups?
- a. Ministry of Science and Technology
 - b. Ministry of Youth Affairs and Sports
 - c. Ministry of Power
 - d. Ministry of Housing and Urban Affairs
14. Ministry of Women and Child Development launched "Amrit Generation Campaign: Naye Bharat Ke Sapne along with which company?
- a. Meta
 - b. Microsoft
 - c. Google
 - d. Apple

15. Indian Institute of Technology (IIT), Delhi is to set up offshore campus in which city?
 - a. Paris
 - b. Abu Dhabi
 - c. Berlin
 - d. Niger
16. FASTag, recently seen in the news, works on which of the following techniques?
 - a. WiFi Frequency Identification
 - b. Infrared Frequency Identification
 - c. Radio Frequency Identification
 - d. Electrical Frequency Identification
17. Which institution regulates the Co-operative banks in India?
 - a. RBI
 - b. NABARD
 - c. Ministry of Cooperation
 - d. NITI Aayog
18. ISRO is jointly developing a nuclear-powered engine along with which institution?
 - a. BARC
 - b. DRDO
 - c. HAL
 - d. BHEL

19. What is the new award instituted to honour scientists in India?
- a. PM Vigyan Puraskar
 - b. Rashtriya Vigyan Puraskar
 - c. Bharat Vigyan Puraskar
 - d. Deen Dayal Vigyan Puraskar
20. Dal Lake, which was seen in the news, is located in which state/UT?
- a. Assam
 - b. Jammu and Kashmir
 - c. Karnataka
 - d. Uttarakhand
21. What is the theme of 'International Girls in ICT Day 2023'?
- a. Empower girls
 - b. Digital Skills for Life
 - c. STEM
 - d. Science Skills for Life
22. Who is the first Indian pair to win Asiad gold medal in badminton?
- a. Satwik and Chirag
 - b. PV Sindhu and Saina Nehwal
 - c. Srikanth and Prannoy
 - d. Sai Praneeth and Prannoy

23. Ecology deals with
- a. Birds
 - b. Cell formation
 - c. Relation between organisms and their environment
 - d. Tissues
24. In which season do we need more fat?
- a. Rainy season
 - b. Spring
 - c. Winter
 - d. Summer
25. IDA stands for
- a. Indian Development Agency
 - b. International Development Agency
 - c. Industrial Development Analyses
 - d. None of the above
26. Hybridization is
- a. downward movement of water through soil
 - b. a process of tilling the land
 - c. decayed vegetable matter.
 - d. cross-fertilization between two varieties.

27. In which of the following organs of human body does maximum absorption of food take place?
- a. Gullet
 - b. Large intestine
 - c. Small intestine
 - d. Stomach
28. Hygrometer is used to measure
- a. relative humidity
 - b. purity of milk
 - c. specific gravity of liquid
 - d. None of the above
29. Ms. Medha Patkar is associated with the
- a. Tehri project
 - b. Enron project
 - c. Sardar Sarovar project
 - d. Dabhol project
30. Malfunctioning of which of the following organs causes jaundice?
- a. Stomach
 - b. Pancreas
 - c. Liver
 - d. Kidney

31. Of the following foods, which one is the best source of protein?
- a. Butter
 - b. Fish
 - c. Lettuce
 - d. Milk
32. The main reserves of phosphorus in the biosphere is in the
- a. hydrosphere
 - b. atmosphere
 - c. lithosphere
 - d. troposphere
33. Deforestation in the uplands may cause pollution in rivers through
- a. leaching of salts
 - b. erosion and silting
 - c. inflow of forest material
 - d. increased discharge rate
34. An adiabatic process is one in which
- a. no heat enters or leaves the gas
 - b. the temperature of the gas changes
 - c. the change in internal energy is equal to the mechanical work done
 - d. all of the above
35. The compression ratio for petrol engines is
- a. 3 to 6
 - b. 5 to 8
 - c. 15 to 20
 - d. 20 to 30

36. Which of the following material has maximum ductility?
- a. Mild steel
 - b. Copper
 - c. Nickel
 - d. Aluminium
37. The difference between dry bulb temperature and wet bulb temperature, is called
- a. dry bulb depression
 - b. wet bulb depression
 - c. dew point depression
 - d. degree of saturation
38. The optimum effective temperature for human comfort is
- a. higher in winter than in summer
 - b. lower in winter than in summer
 - c. same in winter and summer
 - d. not dependent on season
39. Nuclear reactors are used
- a. to produce heat for thermoelectric power
 - b. to produce fissionable material
 - c. to propel ships, submarines, aircrafts
 - d. all of these

40. In a diesel engine, the duration between the time of injection and ignition, is known as
- a. pre-ignition period
 - b. delay period
 - c. period of ignition
 - d. burning period
41. A carburettor is used to supply
- a. petrol, air and lubricating oil
 - b. air and diesel
 - c. petrol and lubricating oil
 - d. petrol and air
42. The function of an alternator in an automobile is to
- a. supply electric power
 - b. convert mechanical energy into electrical energy
 - c. continually recharge the battery
 - d. partly convert engine power into electric power
43. The friction experienced by a body, when in motion, is known as
- a. rolling friction
 - b. dynamic friction
 - c. limiting friction
 - d. static friction

44. The unit of angular acceleration is
- a. N-m
 - b. m/s
 - c. m/s^2
 - d. rad/s
45. The main constituent of fly-ash, is
- a. aluminium oxide
 - b. silica
 - c. ferrous oxide
 - d. All of these.
46. Brittleness of cold is due to an excess of
- a. sulphur
 - b. carbon
 - c. phosphorus
 - d. silicon.
47. The foundations are placed below ground level, to increase
- a. strength
 - b. workability
 - c. stability of structure
 - d. all the above.
48. An imaginary line joining the points of equal elevation on the surface of the earth, represents
- a. contour surface
 - b. contour gradient
 - c. contour line
 - d. level line

49. For ensuring quality of concrete, use
- a. single sized aggregates
 - b. two sized aggregate
 - c. graded aggregates
 - d. coarse aggregates.
50. The risk of segregation is more for
- a. wetter mix
 - b. larger proportion of maximum size aggregate
 - c. coarser grading
 - d. all the above
51. After casting, an ordinary cement concrete on drying
- a. expands
 - b. mix
 - c. shrinks
 - d. none of these.
52. Curing a concrete for long period ensures better
- a. volume stability
 - b. strength
 - c. water resistance
 - d. all of above

53. The main factor which affects the infiltration capacity, is
- a. thickness of saturated layer
 - b. depth of surface detention
 - c. soil moisture
 - d. all the above.
54. Absolute humidity in air
- a. decreases at higher altitudes
 - b. increases at higher altitudes
 - c. remains constant at all altitudes
 - d. none of these.
55. Water supply system includes
- a. digging a well for water
 - b. construction of dams
 - c. construction of canals
 - d. entire arrangement from source to distribution.
56. Which of the following is not a type of energy source?
- a. generator
 - b. rheostar
 - c. solar cell
 - d. battery

57. A material that does not allow current under normal conditions is
- a. insulator
 - b. conductor
 - c. semiconductor
 - d. valence
58. An ohmmeter is an instrument for measuring
- a. current
 - b. voltage
 - c. resistance
 - d. wattage
59. Wrought iron is never shaped by
- a. casting
 - b. cold working
 - c. forging
 - d. welding
60. During a chemical reaction, atomic number
- a. changes
 - b. remains same
 - c. changes and then is restored
 - d. changes alternately
61. Aerobic bacterias
- a. flourish in the presence of free oxygen
 - b. consume organic matter as their food
 - c. oxidise organic matter in sewage
 - d. All the above

62. Self-cleansing velocity is
- a. velocity at dry weather flow
 - b. velocity of water at flushing
 - c. velocity at which no accumulation remains in the drains
 - d. velocity of water in a pressure filter.
63. Biochemical Oxygen Demand (B.O.D.) of safe drinking water must be
- a. nil
 - b. 5
 - c. 10
 - d. 15
64. Most commonly used pump for lifting water in water supply mains. is
- a. Axial flow pump
 - b. reciprocating pump
 - c. rotary type pump
 - d. centrifugal pumps
65. Hydrology helps in
- a. predicting maximum flows
 - b. deciding the minimum reservoir capacity
 - c. forecasting the availability of quantity of water at reservoir site
 - d. all the above

66. The surface Run-off is the quantity of water
- a. absorbed by soil
 - b. intercepted by buildings and vegetative cover
 - c. required to fill surface depressions
 - d. that reaches the stream channels
67. The primary objective of level bench terrace is to:
- a. Conserve water and control erosion
 - b. Reduce runoff
 - c. Make steeply land cultivable
 - d. All of the above
68. Hardware includes
- a. all devices used to input data into a computer
 - b. sets of instructions that a computer runs or executes
 - c. the computer and all the devices connected to it that are used to input and output data
 - d. all devices involved processing information including the central processing unit, memory and storage
69. Which part of the computer helps to store information?
- a. disk drive
 - b. keyboard
 - c. monitor
 - d. printer

70. Which of the following is used as a lubricant?
- a. Graphite
 - b. Silica
 - c. Tron Oxide
 - d. Diamond
71. Carbon, diamond and graphite are together called
- a. allotropes
 - b. isomers
 - c. isomorphs
 - d. isotopes
72. Potassium nitrate is used in
- a. medicine
 - b. fertilizer
 - c. salt
 - d. glass
73. Permanent hardness of water may be removed by the addition of
- a. sodium carbonate
 - b. alum
 - c. potassium permanganate
 - d. lime
74. Diamond is an allotropic form of
- a. germanium
 - b. carbon
 - c. silicon
 - d. sulphur
75. Which metal pollute the air of a big city?
- a. Copper
 - b. Chromium
 - c. Lead
 - d. Cadmium

76. Choose the correct order of sentence

1. I 2. Immediately 3. Salary 4. my 5. want

a. 43152

b. 15432

c. 25143

d. 42351

77. Fill in the blank with proper word.

Catching the earlier train will give us the _____ to do some shopping.

a. chance

b. luck

c. possibility

d. occasion

78. Find the antonym for the word ARTIFICIAL

a. Red

b. Natural

c. Truthful

d. Solid

79. Find the synonym for the word ALERT

a. Energetic

b. Observant

c. Intelligent

d. Watchful

80. Find the correct spelt word.

a. Foreign

b. Foreine

c. Fariegn

d. Forein

81. Find the correct spelt word.

- | | |
|-------------|--------------|
| a. Rigerous | b. Rigourous |
| c. Regerous | d. Rigorous |

82. Find the synonym for the word ADVERSITY

- | | |
|---------------|-----------------|
| a. Failure | b. Helplessness |
| c. Misfortune | d. Crisis |

83. Find the antonym for the word AWARE

- | | |
|--------------|-------------|
| a. Uncertain | b. Ignorant |
| c. Sure | d. Doubtful |

84. Fill in the blank with proper word.

Success in this examination depends _____ hard work alone.

- | | |
|--------|---------|
| a. at | b. over |
| c. for | d. on |

85. Find out correct phrase for word which is underlined.

The man to who I sold my house was a cheat.

- a. to whom I sell
- b. to who I sell
- c. who was sold to
- d. to whom I sold

86. Select the pair which has same relationship

Filter: Water

- | | |
|----------------------|------------------|
| a. curtail: activity | b. expunge: book |
| c. edit: text | d. censor: play |

87. Which of these are vital for any organisation?

- | | |
|-------------|----------------------|
| a. Debates | b. Group discussions |
| c. Speeches | d. Arguments |

88. Which of these factors do not enhance listening skills?

- | | |
|--------------|---------------------|
| a. Attention | b. Clear perception |
| c. Fakeness | d. Frankness |

89. Before the meeting is concluded, there must be a

- | | |
|---------------|-------------|
| a. summary | b. question |
| c. discussion | d. agenda |

90. Which of these is not used to organize a seminar?

- a. oral reports
- b. written reports
- c. exchange of ideas
- d. recommendations

91. A conversation is slowing down when
- a. when person starts to dominate the conversation
 - b. when questions dry up
 - c. a and b
 - d. none of above
92. Types of interview include
- a. Job interview
 - b. delegation
 - c. appraisal
 - d. all of above
93. Which soft skill refers to the ability to convey information effectively and listen actively to others?
- a. Creativity
 - b. Emotional intelligence
 - c. Communication
 - d. Time management
94. How do soft skills differ from hard skills?
- a. Soft skills are specific and measurable abilities, while hard skills are transferable.
 - b. Soft skills are technical, while hard skills are interpersonal.
 - c. Soft skills are not essential in the workplace.
 - d. Soft skills and hard skills are synonymous terms.

95. Which soft skill involves the capability to adjust to changing circumstances and embrace new challenges?
- a. Emotional intelligence
 - b. Adaptability
 - c. Leadership
 - d. Conflict resolution
96. _____ is defined as the process that initiates, guides and maintains goal oriented behaviour.
- a. Motivation
 - b. Attitude
 - c. Aptitude
 - d. All of above
97. The primary skill to acquire knowledge about everything in the world
- a. Reading skill
 - b. Writing skill
 - c. Listening skill
 - d. Speaking skill
98. Interpersonal skill based on_____
- a. Positive attitude
 - b. Decision making
 - c. listening skills
 - d. all of above

99. What soft skill involves the capacity to influence and guide others toward shared goals?
- a. Communication
 - b. Adaptability
 - c. Leadership
 - d. Decision making
100. What soft skill involves the capability to think innovatively and generate original ideas and solutions?
- a. Creativity
 - b. Decision making
 - c. Collaboration
 - d. Conflict resolution

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ROUGH WORK

