



PART – A

1. Arrange the given words in alphabetical order and choose the one that comes second.

- A) Explosion B) Emergency C) Ecstasy D) Eager

Direction : A foreign expression and four English phrases are given. Identify the meaning of the foreign expression from the choices.

2. esprit de corps

- A) Eternal truth B) Pertaining to the senses
C) Similar feeling shared by the group D) Linguistic group

Direction : Identify the meaning of underlined word as used in the sentence, from among four alternatives.

3. In Maharashtra the turmoil in the education system has percolated right down to the preprimary level.

- A) State of confusion B) State of uproar
C) State of negligence D) State of change

Direction : An idiom and four possible meaning are given, identify the meaning of the idiom from among the answer choices.

4. A bird's- eye view

- A) without care B) within the walls
C) an overall view D) out of place

Direction : Fill in the blanks in the given sentence to make it logically and grammatically correct

5. _____ about nine month ago, john was in excellent health.

- A) Until B) In C) At D) As

Direction : A sentence is written in four different forms. Only one of them is grammatically correct. Choose the correct sentence as your answer.

6. A) Everyone of the students have produced his identity card.
B) Everyone of the students has produced his identity card.
C) Everyone of the student has produced his identity card.
D) Everyone of the students have produced their identity card.



Direction : Four alternative substitutes are given for the underline portion. Identify the choice that replace the underline part to form a logical and grammatically correct statement.

7. My friend asked me when had I completed my work.

- A) when I will have complete my work B) when had I completed my work
C) when I had completed my work D) I would have my work completed

Direction : A word and four jumbled choices are given. One of the choices, when properly arranged, give the meaning of the word. Identify the correct choice.

8. DAMAGE

- A) CLOCLET B) UNIJRY C) TEOTLRAE D) AEDMND

Direction : From the choices, select the most suitable synonym for the main word.

9. DETER

- A) distract B) suppress C) discourage D) contaminate

Direction : From the choices, select the most suitable antonym for the main word.

10. EXPEDIENT

- A) necessary B) harmful C) relevant D) imprudent

Direction : There is a certain relation between two given words on one side of : : and one word is given on another side of : : while another word is to be found from the given alternatives , having the same relation with this word as the given pair has. Select the best alternative.

11. Clock : Time : : Thermometer : ?

- A) Heat B) Radiation C) Energy D) Temperature

Direction : There is a certain relation between two given numbers on one side of : : and one number is given on another side of : : while another number is to be found from the given alternatives , having the same relation with this number as the given pair has. Select the best alternative.

12. 1 : 1 : : 25 : ?

- A) 26 B) 125 C) 240 D) 625

Direction : In the given question, four words have been given, out of which three are alike in some manner and the fourth one is different. Choose out the odd one.

13. A) Chair B) Bench C) Table D) Stool

Direction : In the given question, four numbers are given. Out of these, three are alike in a certain way but the rest one is different. Choose the one which is different from the rest three.

14. A) 10 B) 26 C) 24 D) 21



Direction : In the given question, a number series is given with one term missing. Choose the correct alternative that will continue the same pattern.

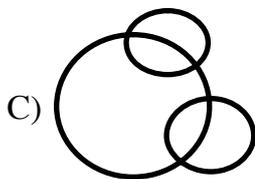
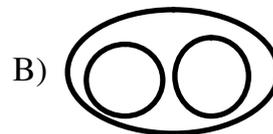
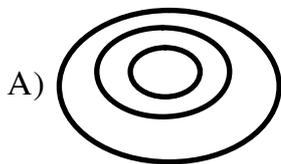
15. 2, 3, 5, 7, 11, (...), 17

- A) 12 B) 13 C) 14 D) 15

16. If in a certain language, MONKEY is coded as XDJMNL, how is TIGER coded in that code ?

- A) QDFHS B) SDFHS C) SHFDQ D) UJHFS

17. Which of the following diagrams correctly represents Carrot, Food, Vegetable ?



18. If \times means \div , $-$ means \times , \div means $+$ and $+$ means $-$, then

$$(3 - 15 \div 19) \times 8 + 6 = ?$$

- A) 8 B) 4 C) 2 D) -1

19. If Mary was 32 years old 8 years ago, how old was she, x years ago ?

- A) $x-40$ B) $x-24$ C) $40-x$ D) $24-x$

20. If one third of one fourth of a number is 15, then three tenth of that number is:

- A) 35 B) 36 C) 45 D) 54

21. Choose the odd one

- A) Throw down the gauntlet: UN peace keeping
 B) In the altogether: Bath tub
 C) The halcyon days: Childhood
 D) The real McCoy: Darjeeling Tea



31. Which one of the following is correct ?
- A) C++ is an operating system B) C++ is a programming language
C) C++ is an internet protocol D) C++ is a machine language
32. Which one of the following journals is very likely to be the one with high standards of publishing ?
- A) Journals with a large number of pages B) Journals with a high impact factor
C) Journals with online version D) Journals without peer review
33. Which one of the following parameters is widely used to judge the citation impact of a scholar ?
- A) TRP rating
B) h-index
C) Number of articles he/she has published
D) Number of awards the scholar has won
34. An open access journal is one
- A) in which one does not have to pay to read articles
B) in which one does not have to pay to submit articles
C) in which the articles can be modified and resubmitted by anyone
D) which does not require a login but one is required to pay to read articles
35. The outcome of an experiment is Boolean-valued. Which probability distribution will the observations very likely follow ?
- A) Binary B) Poisson C) Binomial D) Gaussian
36. The probability distribution for a random error that is as likely to move the value in either direction is called
- A) Poisson distribution B) Gaussian distribution
C) Levy distribution D) Hermite distribution
37. Random errors in experimental studies can be reduced by
- A) Repeating experiments and carrying out statistical analysis
B) reducing mistakes made in calculations
C) ensuring proper calibration of instruments
D) by reducing the time to carry out the experiments
38. The length of an object is 5.0 cm. Researcher 'A' makes measurement of the length and reports a mean of 4.9 cm with an error of 0.2 cm. Researcher 'B' makes a similar measurement and reports a mean of 3.00 cm with an error of 0.02 cm. What conclusions about the measurements can you derive from these statements?
- A) Measurements of both A and B are precise
B) Measurements of B is accurate but not as precise as A
C) Measurements of A is accurate but not as precise as B
D) Measurements of both A and B are accurate



44. In a histogram, if the bin width is set to a very large value,
 A) all small scale features and fluctuations will be lost
 B) all small scale features and fluctuations will be prominent
 C) No information is lost in all cases
 D) The height of the histogram will become bigger
45. Consider the data points in the table below. Which fitting function would be most appropriate to describe this trend ?

x	y
0	0
10	102
20	398
30	899
40	1598

- A) Linear
 B) Exponential
 C) Second order polynomial
 D) Gaussian
46. A hypothesis is
 A) a proposition considered as a starting point based on the limited knowledge
 B) a fact assumed to be true without proof
 C) a logical conclusion based on evidences and can always be proved correct using experiments
 D) a corollary to a theorem
47. A null hypothesis in statistical testing is
 A) one which is not used for statistical testing
 B) the hypothesis that there is no statistically significant differences between specified observations
 C) an invalid hypothesis
 D) the hypothesis that there is very large statistically significant differences between specified observations
48. Which one of the following methods is not used for statistical hypothesis testing
 A) Unit test B) Z-test C) Chi-squared test D) F-test
49. Which one of the following should not be used in a journal article ?
 A) Personally identifiable information of human subjects
 B) Experimental setup or Theory
 C) Results and discussion
 D) References
50. The term multivariate analysis refers to
 A) the statistical procedure of analyzing one variable multiple times
 B) the statistical procedure of analyzing one variable by multiple experimentalists
 C) the statistical procedure of analyzing one variable by multiple methods
 D) the statistical procedure of analyzing more than one variable simultaneously



PART – B

51. Which agency monitors air quality in India ?
A) Central Research Institute
B) Ministry of Health and Family Welfare
C) National Environmental Engineering Research Institute
D) Central Pollution Control Board
52. “Snow-storm” appearance are seen in
A) Anthracosis
B) Silicosis
C) Byssinosis
D) Bagassosis
53. GATHER Approach is useful for
A) Chlorination of water
B) Counselling
C) Refuse disposal
D) Data analysis
54. Principles of Health Education include all EXCEPT
A) Participation
B) Motivation
C) Reinforcement
D) Punishment
55. ASHA is posted at the
A) Village level
B) Community Health Centre
C) Primary Health Centre
D) Sub-Centre
56. Rural health scheme was introduced by
A) Bhore Committee
B) Mukherjee Committee
C) Shrivasthava Committee
D) Mudaliar Committee
57. PERT technique is used in following
A) Network analysis
B) Cost effective analysis
C) Input output analysis
D) System analysis
58. In UNICEF’s GOBI Campaign, ‘O’ stands for
A) Oral Contraceptives
B) Oral Rehydration Therapy
C) Obesity
D) Occupational hazards
59. Emporiatics refers to study of
A) Occupational disease
B) Air pollution
C) Environmental factors
D) Health of travellers
60. The only certificate of vaccination required for international travel is
A) Hepatitis B
B) BCG
C) Tetanus
D) Yellow fever



74. Communicability of disease is assessed by
- A) Secondary attack rate
 - B) Generation time
 - C) Serial interval
 - D) Incubation period
75. Zero incidence is
- A) Elimination of disease
 - B) Eradication of disease
 - C) Elimination of infection
 - D) Eradication of infection
76. 'Disability Limitation' is mode of intervention for
- A) Primordial prevention
 - B) Primary prevention
 - C) Secondary prevention
 - D) Tertiary prevention
77. Iceberg phenomenon differentiates
- A) Apparent and In apparent
 - B) Symptomatic and Asymptomatic
 - C) Cases and Carriers
 - D) Diagnosed and Undiagnosed
78. Studying distribution of disease or health related characteristics in human population and identifying the characteristics with which disease seem to associated is
- A) Descriptive epidemiology
 - B) Experimental epidemiology
 - C) Analytical epidemiology
 - D) Ecological epidemiology
79. Following can be used as a yardstick for the assessment of standards of therapy
- A) Specific death rate
 - B) Case fatality rate
 - C) Proportional mortality rate
 - D) Survival rate
80. The relationship between incidence and prevalence can be expresses as
- A) The product of incidence and mean duration of disease
 - B) The dividend of incidence and mean duration of disease
 - C) The sum of incidence and mean duration of disease
 - D) The difference of incidence of mean duration of disease
81. All the following are advantages of case control studies EXCEPT
- A) Useful in rare diseases
 - B) Relative risk can be calculated
 - C) Cost-effective and inexpensive
 - D) Odds ratio can be calculated
82. Several studies have shown that 85% of cases of lung cancer are due to cigarette smoking. It is a measure of
- A) Incidence rate
 - B) Relative risk
 - C) Attributable risk
 - D) Population attributable risk



92. Corpulence index is related to
- A) Measurement of obesity
 - B) Measurement of copper level in serum
 - C) Measurement of iron losses in faeces
 - D) Pressure difference b/w chambers of heart
93. The preferred public health approach to control non-communicable disease is
- A) Shift the population curve of risk factors by population based approach
 - B) Focus on high risk individuals for education of risk
 - C) Early diagnosis and treatment of indentified cases
 - D) Individual disease based vertical programmes
94. The North Karelia project evaluate risk factors of
- A) Diabetes
 - B) Coronary heart disease
 - C) Cancers
 - D) Obesity
95. Data regarding recent trends of Immunization in Community can be found by
- A) Census data
 - B) Rural survey
 - C) District level household survey
 - D) Sample registration system
96. Gold standard study for Clinical research is
- A) Randomized double-blind trial
 - B) Systematic meta-analysis
 - C) Ecological study
 - D) Retrospective cohort study
97. The instrument used for recording very low air velocities is
- A) Globe thermometer
 - B) Kata thermometer
 - C) Anaemometer
 - D) Sling psychrometer
98. Leading cause of maternal deaths in India is
- A) Anemia
 - B) Hemorrhage
 - C) Sepsis
 - D) Obstructed labour
99. Statistical power of a trial is equal to
- A) $1+\alpha$
 - B) $1- \beta$
 - C) $\alpha + \beta$
 - D) α/β
100. Which is the best method to compare the results obtained by a new test and a gold standard Test ?
- A) Correlation study
 - B) Regression study
 - C) Bland and Altman analysis
 - D) Kolmogorov-Smirnov test
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SPACE FOR ROUGH WORK