1) When a diagnostic test is used in “series” mode, then:
A) Sensitivity increases but specificity decreases
B) Specificity increases but sensitivity decreases
C) Both sensitivity and specificity increase
D) Both sensitivity and specificity decrease

2) Not required for chi square test
A) Null hypothesis
B) Degrees of freedom
C) Means in different group
D) Proportions in different group

3) Rabies vaccine for pre exposure prophylaxis is given at:
A) 0, 3, 7 days
B) 0, 3, 7, 14 days
C) 0, 3, 7, 14, 30 days
D) 0, 7, 28 days

4) Reverse cold chain is seen in:
A) Expired vaccine from PHC to manufactured
B) Carrying vaccine to periphery center
C) Testing for potency of vaccine
D) Stool specimen of polio send for testing

5) Screening for condition recommended when:
A) Low case fatality rate
B) Diagnostic tools not available
C) No effective treatment available
D) Early diagnosis can change disease course because of effective treatment

6) Screening test for Breast and Genital tract malignancy is:
A) CA - 125
B) Mammography
C) Office endometrial aspiration
D) Pap smear

7) Treatment of choice for diphtheria carriers is:
A) Erythromycin
B) Tetracycline
C) Penicillin
D) DPT

8) Which of the following is not true about influenza virus?
A) Influenza virus subject to frequent antigenic variations
B) Antigenic drift is a gradual antigenic change over a period of time
C) Antigenic shift is due to genetic recombination of virus
D) Major epidemics are due to antigenic drift
9) Uses of Chandler’s index for Hookworm include all except
   A) Assessment of endemicity
   B) Monitoring of individual treatment
   C) Monitoring mass treatment of community
   D) Comparison of worm load in different population

10) Copper T with threads is visible in a case of early pregnancy. Treatment of choice is:
    A) Remove CuT only
    B) Suction evacuation with Copper-T removal
    C) Reassurance and continue pregnancy
    D) Laparotomy

11) Survey Education and treatment center (SET Centers) cover a population of:
    A) 20 - 25000
    B) 50000
    C) 1 lakh
    D) 4.5 lakh

12) What is the new change in National Program on Prevention and Control of Diabetes, Cardiovascular diseases and Stroke?
    A) Opportunistic screening
    B) Awareness of lifestyle and behavior related diseases
    C) Specialized units at Medical colleges
    D) Integration with National Cancer Control Program

13) Transplantation of Human Organs Act was passed by Government of India In:
    A) 1996
    B) 1993
    C) 1998
    D) 1994

14) Casal’s Necklace is seen in deficiency of:
    A) Vitamin A
    B) Vitamin B3
    C) Vitamin B6
    D) Vitamin D

15) Pasteurised milk is most commonly tested by:
    A) Phosphatase test
    B) Coliform test
    C) Catalase test
    D) Oxidase test

16) World Red Cross day is observed on
    A) 10 October
    B) 8 September
    C) 14 June
    D) 8 May

17) Percentage of para-para isomer in DDT is
    A) 70-80 %
    B) 40-50 %
    C) 60-70 %
    D) 20-30 %
18) Most efficient anti larval measure to prevent urban malaria is:
A) Clean drainage and sewerage systems
B) Cover overhead tanks properly
C) Filling cesspools and ditches
D) Cover pits

19) True about inertization all except:
A) Mixing biomedical waste with cement
B) Used for pharmaceutical waste
C) Contaminates water sources
D) Not useful for infectious waste

20) True about “Zero base budgeting” is:
A) Relies on data of previous budget
B) Proceeds from resources to target
C) Proceeds from targets to resource
D) Not a priority based budgeting

21) Breast feeding week is celebrated on:
A) 1st week of March
B) 1st week of July
C) 1st week of August
D) 1st December

22) DALE has been replaced by:
A) DALY
B) QALY
C) HALE
D) DFLE

23) Confounding can be eliminated by all except:
A) Matching
B) Blinding
C) Randomization
D) Multivariate analysis

24) Organism multiplying and developing in the host is called as:
A) Cyclopropagative
B) Cyclodevelopmental
C) Developmental
D) Propagative

25) Which of the following statements is true about BCG vaccinations:
A) Distilled water is used as diluent for BCG vaccine
B) The site for injection should be cleaned thoroughly with spirit
C) Mantoux test becomes positive after 18 hours of vaccination
D) WHO recommends Danish 1331 strain for vaccine production

26) Sputum is sterilized by all except:
A) Autoclaving
B) Boiling
C) Cresol
D) Chlorhexidine
27) Discovery of cholera by John Snow was a:
A) Cohort study
B) Cross sectional study
C) Natural experiment study
D) Clinical trial

28) ‘Lead time’ refers to the time between:
A) Disease onset and first critical diagnosis
B) Disease onset and first possible point of detection
C) First possible point of detection and final critical point
D) First possible point of detection and usual time of diagnosis

29) The best indicator for level of air pollution –
A) \( \text{H}_2 \)
B) \( \text{N}_2 \)
C) \( \text{CO}_2 \)
D) \( \text{SO}_2 \)

30) Which of the following is not a part of National screening programmes?
A) Diabetes mellitus
B) Carcinoma cervix
C) Refractive errors
D) Dental caries

31) Which of the following is the ‘least common’ complication of measles?
A) Diarrhoea
B) Pnuemonia
C) Otitis media
D) Subacute sclerosing pan encephalitis

32) WHO criteria for high endemicity for Meningococcal disease include:
A) 0.1%
B) 0.01%
C) 0.001%
D) 1.0%

33) A lactating woman has sputum positive Tuberculosis and her neonate child is 3 months old. What is the recommended chemoprophylaxis?
A) INH 3 mg /kg for 3 months
B) INH 5 mg /kg for 3 months
C) INH 3 mg /kg for 6 months
D) INH 5 mg /kg for 6 months

34) Most important in diagnosing Acute Hepatitis B is:
A) IgG Anti-HBc
B) IgM Anti-HBc
C) Anti-HBs
D) HBsAg

35) Which one of the following gives strong evidence of Typhoid fever carrier status:
A) Isolation of core antigen
B) Isolation of Vi antigen
C) Persistance of Vi antibodies
D) Demonstration of Typhoid bacilli in stools
36) Dengue virus appears to have a direct man-mosquito- man cycle in India. The mechanism of dengue virus survival in the inter-epidemic period is:
A) Non human reservoir
B) Dormant or latent phase in man
C) Transovarian transmission of the virus
D) Poor housekeeping by public

37) What are the number of holes in 1 square inch of mosquito net -
A) 150
B) 200
C) 250
D) 100

38) Organism that does not need vector for transmission:
A) Rickettsia prowazekii
B) Rickettsia ricketsii
C) Coxiella burnetti
D) Borrelia recurrentis

39) All of the following statements are true about clostridium tetani infection except:
A) Main reservoir is soil, animal intestine and human intestine
B) Main mode of transmission is through trauma and contaminated wound
C) Herd immunity does not have much value
D) Seen commonly in winter and dry climate

40) WHO stage IV HIV includes all except:
A) Toxoplasmosis
B) Pnuemocystis carinii
C) HIV Wasting syndrome
D) Oral thrush

41) Which one of the following is an Index of communicability of an infection:
A) Carrier rate
B) Prevalence rate
C) Secondary attack rate
D) Primary attack rate

42) The risk of developing oral cancer due to tobacco is:
A) 100%
B) 40%
C) 90%
D) 60%

43) Disease not included in Vision 2020, India is:
A) Cataract
B) Glaucoma
C) Diabetic Retinopathy
D) Onchocerciasis

44) Blindness rate in India due to refractive error is:
A) 62.6%
B) 19.7%
C) 0.8%
D) 6.2%
45) Under RNCTP diagnosis, TB bacilli take up AFB stain faster showing ‘Beaded Appearance’ due to:
A) Palmitic acid  
B) Wax-D  
C) Cord Factor  
D) Mycolic acid

46) In acute flaccid paralysis, examination for residual paralysis should be done:
A) 30 days  
B) 60 days  
C) 90 days  
D) 120 days

47) Under National programme for control of blindness, district blindness control society is headed by:
A) District programme manager  
B) District eye surgeon  
C) District collector  
D) District Health officer

48) Resource persons for training of ASHA:
A) Medical officer and ANM  
B) Medical officer and Anganwadi worker  
C) ANM and Anganwadi worker  
D) Medical officer

49) Out of 8 goals mentioned in MDG, which goal is related to maternal health?
A) 1st  
B) 3rd  
C) 5th  
D) 6th

50) Goals of national population policy are all except?
A) Decreased IMR to below 30/1000 live birth  
B) Reduced MMR to below 100/10000 live births  
C) Achieve 100% registration of births, deaths, marriage and pregnancy  
D) Bring down TFR to replacement level by 2015

51) Which of the following is NOT included in Mental Health Care Act 2011?
A) Promotion of Mental Health & prevention of mental illness  
B) Integration of mental health care system in to all levels of health care  
C) Fundamental rights of mentally retarded  
D) Minimum mental health care for all

52) Potential support ratio (PSR) is defined as:
A) Number of persons aged 15 to 65 per children below 15 years  
B) Number of persons aged 15 to 65 per 1 older person aged ≥ 65 years  
C) Number of persons aged 15 to 65 per 1 older person aged > 65 years and younger person < 15 years  
D) Number of persons aged 15 to 65 per 1 older person aged > 60 years and younger person < 15 years

53) What is Net Reproduction Rate (NRR)?
A) No. of children a new born girl has in her left time  
B) No. of female children a newborn girl has in her life time  
C) No. of male children a newborn girl has in her life time  
D) No. of female children a newborn girl has in her life time, taking into account age specific mortality
54) In WHO “Road to health” chart upper and lower limit represents
A) 30 percentile for boy and 3 percentile for girl
B) 50 percentile for boy and 3 percentile for girl
C) 30 percentile for boy and 5 percentile for girl
D) 50 percentile for boy and 5 percentile for girl

55) Conditionally essential amino acids are
A) Leucin & Lysine
B) Histidine & Arginine
C) Tyrosine & Cysteine
D) Phenylalanine & Triptophon

56) The protein quality indicator adopted by ICMR in recommending dietary protein requirement is
A) Amino acid score
B) Net protein utilization
C) Biological value
D) Protein efficiency ratio

57) Amount of cereals provided per child per school day at primary level in mid day meal program is
A) 50 Grams
B) 75 Grams
C) 100 grams
D) 150 grams

58) Xerophthalmia is a problem in a community if the prevalence of bitot’s spots is more than:
A) 1%
B) 0.5%
C) 5%
D) 25%

59) True about cow’s milk are all except:
A) Cow’s milk contain 80% of whey protein and no casein
B) Has more protein than breast milk
C) Has more K+ and Na+ than breast milk
D) Has less carbohydrates than mother’s milk

60) According to WHO anemia in pregnancy is diagnosed below – gm/dl hemoglobin level
A) 8
B) 9
C) 10
D) 11

61) International food standards included:
A) BIS standards
B) Codex alimentarius standards
C) AgMark standards
D) PFA standards

62) Severe Acute Malnutrition diagnostic criteria include all except:
A) Bipedal edema
B) Visible severe wasting
C) Mid arm circumference below 115mm
D) Weight for height below 2SD of WHO Growth Standards 2006
63) Learned behavior which is permanent and consistent, but liable to change:
A) Cultural belief
B) Attitude
C) Knowledge
D) Practice

64) According to Maslow’s hierarchy of needs, following is at top of pyramid:
A) Physical needs
B) Self Actualization
C) Safety
D) Esteem recognition

65) Average Mental IQ according to Wechsler’s scale is:
A) 70-79
B) 80-89
C) 90-109
D) 110-119

66) Income generated within a country is known as:
A) Gross Domestic Product (GDP)
B) Net National Product (NNP)
C) Net Domestic Product (NDP)
D) Purchasing power Parity (PPP)

67) Not seen in fecal pollution:
A) Staphylococcus
B) Streptococcus
C) E.coli
D) Clostridium perfringes

68) All the following statements about purification of water are true except:
A) Presence of clostridium spores indicate recent contamination
B) Coliforms must not be detected in any 100 ml sample of drinking water
C) Sodium Thiosulphate is used to neutralize chlorine
D) Coliforms may be detected by multiple tube method and indole production at 44 degrees

69) Confirmatory test for coliforms count:
A) Eijkman test
B) Casoni test
C) Nitrate test
D) Urease test

70) Kata Thermometer measures:
A) Air temperature only
B) Air temperature and Humidity
C) Air temperature, Humidity and air movement
D) None

71) Acceptable level for physical comfort:
A) Corrected effective temperature 79°F
B) Corrected effective temperature 70-76°F
C) Corrected effective temperature 80-81°F
D) Corrected effective temperature >82°F
72) Strength of sewage is expressed in terms of all except:
A) E coli Count
B) Suspended particle
C) Chemical oxygen demand
D) Biological oxygen demand

73) The anopheles species most commonly found in coastal region is
A) Philippinensis
B) Stephensi
C) Fluviatilis
D) Minimums

74) The nerve gas “sarin” is
A) Organophosphorus compound
B) Organochloro compound
C) Carbamate
D) Acridine

75) Not true about screw feed technique is
A) 80% volume reduction
B) Pathological waste are removed
C) Weight is decreased by 20 – 35%
D) Based on nonburn dry thermal treatment

76) Epidemics after disaster are caused by all except;
A) Leptospirosis
B) Rickettsiosis
C) Leishmaniasis
D) Acute Respiratory infection

77) According to the Workman’s compensation Act, 1992 which of the following is considered an occupational disease?
A) Typhoid
B) Anthrax
C) Tetanus
D) Dengue

78) Hardy Weinberg law is related to :
A) Gene therapy
B) Human Genome Project
C) Population Genetics
D) Eugenics

79) Effect of environment on genes is called :
A) Positive Eugenics
B) Negative Eugenics
C) Euthenics
D) Ergonomics

80) Which of the following is a set point framed for long term plans but is yet something that cannot be quantified or measured:
A) Target
B) Goal
C) Objective
D) Mission
81) Bajaj committee in 1986 proposed:
A) Multipurpose health worker
B) Manpower and planning
C) Rural health service
D) Integrated health services

82) Universal Health coverage of India was recently approved by which health committee?
A) Medical education health group
B) MPW in health and family planning
C) High level expert group
D) Health survey and development committee

83) Antenatal support is not delivered by:
A) Anganwadi worker
B) Female Health worker
C) Female health assistant
D) Traditional birth attendant

84) Tropical diseases targeted for research and training by WHO include all except:
A) Trypanosomiasis
B) Filariasis
C) Schistosomiasis
D) Onchocerciasis

85) According to International Health Regulation (IHR) Act, a pregnant woman, with the following duration of pregnancy (in weeks), can’t travel by air to other country:
A) 20
B) 28
C) 32
D) 36

86) Yellow fever vaccination starts protection after how many days of injection:
A) 5 days
B) 10 days
C) 15 days
D) 20 days

87) Which of the following is used to denote a continuous variables?
A) Simple bar
B) Histogram
C) Pie diagram
D) Multiple bar

88) Likert scale is:
A) Ordinal scale
B) Nominal scale
C) Variance scale
D) Categorical scale

89) Measuring variation between two different units is done through:
A) Variance
B) Coefficient of variance
C) Standard deviation
D) Range
90) Z score criteria applicable to:
A) Normal distribution
B) Skewed deviation
C) Chi square test
D) Paired t test

91) For a Negative skewed data mean will be;
A) Less than median
B) More than median
C) Equal to median
D) One

92) Q-test is used for detecting:
A) Outliers
B) Interquartile range
C) Difference of means
D) Difference of proportions

93) About standard Normal curve all is true except:
A) Area = 1
B) S.D = 1
C) Bell shaped
D) Mean and Median = 1

94) For calculation of sample size for a prevalence study all of the following are necessary except:
A) Prevalence of disease in population
B) Power of the study
C) Significance level
D) Desired precision

95) True about cluster sampling are all except:
A) Sample size same as simple random
B) It is two stage sampling
C) Cheaper than other methods
D) It is a method for rapid assessment

96) In a study, variation in cholesterol was seen before and after giving a drug. The test which would give its significance is:
A) Unpaired t test
B) Fischer test
C) Paired t test
D) Chi square test

97) Appropriate statistical method to compare two proportion is:
A) Chi square test
B) Student's t test
C) Odds ratio
D) Correlation Coefficient

98) For testing the statistical significance of the difference in heights of school children:
A) Student's test
B) Chi square test
C) Paired t test
D) One way analysis of variance (One way ANOV)
99) Pearson or Spearman coefficient is used for evaluation of:
A) Differences in proportion
B) Comparison of more than 2 means
C) Comparison of variance
D) Correlation

100) Receiver Operator Characteristic (RO) curve is usually drawn between:
A) Sensitivity & Specificity
B) (1-Sensitivity) & Specificity
C) Sensitivity & (1-Specificity)
D) (1-Sensitivity) & (1-Specificity)