

(Ph.D) – Health Sciences

Entrance Examination – 2018

Hall Ticket Number

Time: 2 hours Total Marks: 80 (Part I 40 marks + Part II 40 marks)

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE ANSWERING.

INSTRUCTIONS

1. This booklet has twenty three (23) pages. Please check thoroughly for all the pages.
 2. Enter the Hall Ticket number on the first page of this booklet as well as on the OMR sheet.
 3. There are two PARTS in the question paper – PART I (Question numbers 1-40) and PART II (Question numbers 41 - 80). In case of a tie, marks obtained in PART I will be considered for resolving the tie. Part I section of 40 marks is common to all 3 streams of study.
 4. Part II is organized as follows and clearly highlighted and color coded:
 - a. A= Public Health
 - b. B = Optometry and Vision Sciences
 - c. C = Nursing
 5. Candidates who have applied for a specific stream of study have to answer Section I which is common to all 3 streams and then select the section to which they have applied from Section II (A or B or C) as applicable. **ONLY ONE STREAM CAN BE ANSWERED BY ANY CANDIDATE IN THE ENTRANCE EXAMINATION AND THE CODE HAS TO BE MARKED CLEARLY ON THE OMR ANSWER SHEET.**
 6. All answers have to be answered only in the provided and customized OMR sheet.
 7. Scientific calculators are not permitted.
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PART I (COMMON TO ALL 3 STREAMS OF STUDY).

- 1. In a population of 10,000,000 people, at a given time 500 individuals have motor neurone disease. What is the point prevalence of motor neurone disease in this population at this given time?**
 - A. 0.05 per 100,000
 - B. 0.5 per 100,000
 - C. 5 per 100,000
 - D. 50 per 100,000

- 2. Which of the following determinants of health is a 'downstream' determinant?**
 - A. Housing
 - B. Employment conditions
 - C. Age
 - D. Education

- 3. Which of the following is NOT a characteristic of public health?**
 - A. Prevention of disease in the community and environment
 - B. Ensuring complete removal of all health care related errors
 - C. Creation of a healthy community and reducing environmental hazards
 - D. Linking people with proper health care providers

- 4. The number of new cases of disease or injury in a population per unit of time is called:**
 - A. Sensitivity
 - B. Prevalence
 - C. Specificity
 - D. Incidence

- 5. Which of the following would be considered primary prevention?**
 - A. Decreasing incidence
 - B. Risk reduction, such as smoking cessation
 - C. Screening programs, such as BP screening
 - D. Treatment programs, such as antibiotics

- 6. Which of the following is NOT caused by a virus?**
 - A. Rheumatic fever
 - B. Polio
 - C. Smallpox
 - D. Rabies

- 7. Nematodes, the most common sources of human infection in the world, primarily infect tissues and the:**
 - A. Blood
 - B. Lungs
 - C. Intestines
 - D. Liver

- 8. **A visiting physician at a small rural village finds that the reason for a recent outbreak of disease is a contaminated water supply. Educating villagers to boil their water is strategy that targets what link in the chain of infection?**
 - A. Link 1: Pathogen
 - B. Link 2: Reservoir
 - C. Link 3: Method of transmission
 - D. Link 4: Susceptible host

- 9. **The concept of vaccination originated with smallpox, and was made safe after Dr. Edward Jenner proved inoculation with infected matter from what animal?**
 - A. Sheep
 - B. Cow
 - C. Rabbit
 - D. Horse

- 10. **A large group of people is followed over 10-years. Every 2-years, it is determined who develops heart disease and who does not. What type of study is this?**
 - A. Case study
 - B. Cohort study
 - C. Case-control study
 - D. Randomized controlled trial (RCT)

- 11. **A patient is randomly screened for HIV in the Emergency Room. Although the patient is well, the test categorizes them as having HIV. What type of error occurred?**
 - A. True positive
 - B. True negative
 - C. False positive
 - D. False negative

- 12. **A test is externally valid when:**
 - A. Results are valid for the test sample
 - B. Results are valid for the general population
 - C. Results are always valid for anyone tested
 - D. Results are valid when the test is accurate

- 13. **A screening test has a 2% false-negative rate. What is the sensitivity of this test?**
 - A. 98%
 - B. 96%
 - C. 50%
 - D. 4%

- 14. **What type of data is used in a study differentiating between patients being treated with a drug and a placebo (no drug)?**
 - A. Nominal
 - B. Ordinal
 - C. Interval
 - D. Ratio

- 15. **A patient rates their pain level on a scale from 1 to 10. What type of data is this?**
 - A. Nominal
 - B. Ordinal
 - C. Interval
 - D. Ratio

- 16. What is the most common value in a sampling of data?**
- A. Mean
 - B. Median
 - C. Mode
 - D. Standard deviation
- 17. Two standard deviations would incorporate how much of the data on a normal curve (Gaussian distribution)?**
- A. 50%
 - B. 68%
 - C. 90%
 - D. 95%
- 18. The two ways to infer the population from a sample statistic are a 95% confidence interval and:**
- A. Hypothesis testing
 - B. Chi-squared data
 - C. P value cut-off
 - D. Data categorical data
- 19. In general, which of the following is NOT true of a cohort study?**
- A. Can calculate risks
 - B. Useful for patients with risk factors
 - C. Less costly overall
 - D. Can estimate incidences
- 20. Which of the following is both cost and time efficient and works best for the study of rare diseases?**
- A. Case study
 - B. Cohort study
 - C. Case-control study
 - D. Randomized controlled trial (RCT)
- 21. Repeated health advertising campaigns typically:**
- A. Result in exponential changes in behaviour.
 - B. Are no more effective than a single campaign.
 - C. Confuse the target audience.
 - D. Result in small, incremental, changes in behaviour.
- 22. How may the environment influence health-related behaviour?**
- A. Maximising the costs of unhealthy behaviour
 - B. Enabling appropriate behaviour
 - C. Providing cues to action
 - D. All the above
- 23. Which of the following is not one of the priorities for action in the healthy cities movement?**
- A. Improve vaccination levels
 - B. Care of the elderly
 - C. Traffic and tobacco control
 - D. Health inequalities

24. **Showing the effectiveness of large scale health promotion projects has proven difficult because:**
- A. Control areas often receive similar interventions to those in the intervention areas.
 - B. Background information is changing and may mask the impact of any single intervention.
 - C. Of poor research methodologies.
 - D. The first and the second alternatives only.
25. **WHO reported that small pox was eradicated worldwide in the year:**
- A. 1983
 - B. 1973
 - C. 1979
 - D. 1981
26. **The World Health Organization Headquarters is in:**
- A. Paris, France
 - B. London, UK
 - C. Geneva, Switzerland
 - D. New York, USA
27. **United Nation's 'Food Assistant Wing' addresses hunger issues is called:**
- A. World Food Programme
 - B. World Health Organization
 - C. UNICEF
 - D. UNESCO
28. **United Nations' was founded in:**
- A. 24 October, 1945
 - B. 24 October, 1948
 - C. 24 October, 1949
 - D. 25 October, 1944
29. **The United Nations specialized agency whose main concern is international public health is known as:**
- A. International Labour Organization
 - B. United Nations Children's Fund
 - C. World Health Organization
 - D. World Food Programme
30. **The average of 6 numbers is 3.95. The average of two of them is 3.4, while the average of other two is 3.85. What is the average of the remaining two numbers?**
- A. 4.8
 - B. 4.7
 - C. 4.6
 - D. 4.2
31. **A car covers the first 35 kms of its journey in 45 minutes and the remaining 69 kms in 75 minutes. What is the average speed of the car?**
- A. 42 kms/hr
 - B. 52 kms/hr
 - C. 54 kms/hr
 - D. 56 kms/hr

32. The average weight of 10 boys is more than the average weight of 15 girls by 5 kg. If the total weight of the 10 boys is 550 kgs, what is the average weight of 10 boys and 15 girls together?
- A. 53 kgs
B. 54 kgs
C. 55 kgs
D. 52 kgs
33. The total population of a village is 5000. The numbers of men and women increase by 10% and 15% respectively and consequently the population of the village becomes 5600. What was the number of men in the village?
- A. 2000
B. 3000
C. 4000
D. 5000
34. The population of a town is 8500. It increases by 20% in the first year and by another 25% in the second year. What would be population of the town after two years?
- A. 10950
B. 12750
C. 12550
D. 12350
35. In a mixture of 80 litre, milk and water are in the ratio 5:3. If 16 litre of this mixture is replaced by 16 litre of milk, what is the ratio of milk and Water now?
- A. 6:3
B. 2:1
C. 7:3
D. 8:3
36. In a 30 litre mixture of water and alcohol, there is 90% alcohol. What amount of water should be mixed so that the alcohol content becomes 80%?
- A. 3.75 litres
B. 2.75 litres
C. 4.75 litres
D. 5.75 litres
37. Milk contains 5% water. What quantity of pure milk should be added to 10 litres of milk to reduce this to 2%?
- A. 5 litres
B. 10 litres
C. 15 litres
D. 20 litres
38. During Onam festival in Kerala, one boat is rowed downstream at 15.5 km/hr and upstream at 8.5 km/hr. What is the speed of the stream?
- A. 7 km/hr
B. 6.5 km/hr
C. 3.5 km/hr
D. 5 km/hr

39. In a certain code 'DIVISION' is written as 'DVISIOIN'. How is 'STATES' written in that code?

- A. SATETS
- B. SATTES
- C. SAETTS
- D. STTAES

40. If Driver = 12, Pedestrian = 20, Accident = 16, then what is the code for Car?

- A. 3
- B. 6
- C. 8
- D. 10

PART II – A. PUBLIC HEALTH

41. If you change only one observation from a set of 10 observations, which of the following will definitely change?
- A. Mean
 - B. Mode
 - C. Median
 - D. Standard Deviation
42. Which of the following is a social motive?
- A. Hunger
 - B. Thirst
 - C. Pain avoidance
 - D. Achievement
43. Emphasizing the outcomes if someone fails to act to reduce risk of ill-health is known as
- A. Framing
 - B. Anxiety inducing
 - C. Negative framing
 - D. Positive framing
44. According to the health belief model, which of the following is not an environmental influence that should be considered when encouraging health behaviour.
- A. Cues
 - B. Social norms
 - C. Minimizing costs and barriers
 - D. Increase the costs of engaging in health damaging behaviour
45. Fluoridation of water would be an example of:
- A. A primary prevention strategy
 - B. A secondary prevention strategy
 - C. A tertiary prevention strategy
 - D. It is not a prevention strategy
46. When a contagious disease suddenly increases in incidence it is said to be:
- A. Pandemic
 - B. Epidemic
 - C. Endemic
 - D. Sporadic
47. An antigen is a substance which:
- A. Renders bacteria harmless
 - B. Neutralizes certain toxins
 - C. Produces local erythema
 - D. Stimulates antibody production
48. When is it permissible to a client with TB to return to work?
- A. Two sputum cultures are negative
 - B. Five sputum cultures are negative
 - C. A sputum culture and a chest x-ray is negative
 - D. A sputum culture and a ppd test are negative

49. What does a frequent small exposure to a specific disease may give rise to?
- A. Active acquired immunity
 - B. Active natural immunity
 - C. Passive natural immunity
 - D. Passive acquired immunity
50. At what age, women should ideally have their first mammogram?
- A. At age 30.
 - B. At age 35.
 - C. At age 40.
 - D. At age 45.
51. What percentage of your diet should constitute fat?
- A. About 10 percent of your daily calories.
 - B. About 20 percent of your daily calories.
 - C. About 30 percent of your daily calories.
 - D. About 40 percent of your daily calories.
52. How much exercise do you really need?
- A. 45 minutes twice a week.
 - B. 30 minutes three or four days a week.
 - C. 60 minutes at least three or four days a week.
 - D. 30 minutes at least four or five days a week.
53. Which factors from the below, may increase your risk of having a stroke?
- A. Hypertension and aging.
 - B. Being female and Caucasian.
 - C. Being female and African-American.
 - D. Menopause.
54. Health warnings on cigarettes are ineffective in changing the behaviour of existing smokers. However, the warnings may:
- A. Prevent smoking initiation
 - B. Increase self-efficacy to give up
 - C. Increase perceived susceptibility
 - D. Increase knowledge
55. Early public health initiatives involving mass media campaigns often used a 'hypodermic' model of behaviour change. This assumed a relatively stable link between knowledge, attitudes and:
- A. Outcome
 - B. Behaviour
 - C. Mastery
 - D. Perceived susceptibility.
56. Effective communication requires:
- A. Connection, a common purpose and mutual understanding.
 - B. Receiving and understanding.
 - C. Understanding of environmental factors.
 - D. Shared meaning only.

- 57. Which of the Following is important while attempting Effective Communication?**
- A. Consider the culture of the person.
 - B. Remember the emphasis on words or phrases changes meaning.
 - C. Establish the knowledge of your audience.
 - D. All of the above.
- 58. Therapeutic communication should ensure which of the following?**
- A. The person seeking assistance will adopt obedient and acceptance to the information provider.
 - B. The health professional will have a positive relationship and provides appropriate information in response to the health needs of the target group.
 - C. The health professional and the person seeking assistance will come to an agreement.
 - D. The person seeking assistance will act and react to the events involved in seeking assistance.
- 59. The study of distribution and determinants of the disease is called**
- A. Epidemiology
 - B. Entomology
 - C. Pathology
 - D. Community
- 60. The system of storage and transport of vaccine at low temperature is called**
- A. Cold chain system
 - B. Vaccine chain system
 - C. Vaccine carrier
 - D. Ice linked refrigerator
- 61. Nalgonda technique is used for**
- A. Parboiling of rice
 - B. De-fluoridation of water
 - C. Composting of solid waste
 - D. Disinfection of water sources
- 62. Society is defined as:**
- A. A conglomeration of people
 - B. A group of people bound by rules
 - C. An association with regulated membership
 - D. An organized association patterned on the norms of interaction
- 63. The percentage of women in the reproductive age group to the total population in India is:**
- A. 16
 - B. 19
 - C. 28
 - D. 34
- 64. India has entered which phase of demographic cycle?**
- A. High stationary
 - B. Low stationary
 - C. Early expanding
 - D. Late expanding

65. A patient on anti-rabies treatment is advised to
- A. Refrain from smoking
 - B. Abstain from alcohol
 - C. Take regular exercise
 - D. Consume extra calories
66. The poorest source of Iron is
- A. Apple
 - B. Dates
 - C. Jaggery
 - D. Milk
67. Sterilization for supplying water to community is by:
- A. Boiling
 - B. Chlorination
 - C. Ozonization
 - D. Adding Potassium Permanganate
68. Strict vegetarian diet results in the deficiency of:
- A. Vitamin B1
 - B. Biotin
 - C. Vitamin B12
 - D. Vitamin D
69. Primary health care includes all of the following except:
- A. Immunization services
 - B. Family Planning service
 - C. Specialized services
 - D. Health education regarding water disinfection
70. Food adulteration includes all the following except:
- A. Substitutions
 - B. Fortification
 - C. Extraction
 - D. Misbranding
71. If an epidemiologist is called into investigate communicable disease emergency, the first thing he should determine is
- A. Possible source of infection
 - B. Accuracy of diagnosis
 - C. Method of transmission
 - D. Method of control
72. Richest source of Vitamin C per 100 gm is:
- A. Amla
 - B. Lemon
 - C. Guava
 - D. Cabbage

73. Which one of the following is the grass root level worker in the integrated Child Development Services Scheme?

- A. Midwife
- B. Anganawadi worker
- C. Lady Health worker
- D. Child development project officer

74. Health education is to teach about:

- A. Symptoms of a disease
- B. Management of an illness
- C. Prognosis of a disease
- D. Health practice, life styles and to adopt environmental changes

75. Iron deficiency anaemia is seen in:

- A. Tape worm infestation
- B. Round worm infestation
- C. Giardiasis
- D. Hook worm infestation

76. Weaning is best done at:

- A. 1-2 months
- B. 2-3 months
- C. 3-4 months
- D. 4-6 months

77. Registration of death should be within

- A. 24 hours
- B. 7 days
- C. 14 days
- D. 21 days

78. While performing Chi-square test, the data must be:

- A. In Raw form as scores
- B. In Ratio form
- C. In proportion form
- D. In Percentage

79. Student's T test is a statistical method to test the significance of:

- A. One mean
- B. Difference between 2 means
- C. Find the correlation between 2 variables
- D. Co-efficient of variation

80. The current WHO Director General is:

- A. Soumya Swaminathan
- B. Margaret Chan
- C. Ban Ki Moon
- D. Tedros Adhanom Ghebreyesus

PART II – B. OPTOMETRY AND VISION SCIENCES

41. Aerosols commonly used in household things can cause ----- in the eye when they come in contact with the eye.
- A. Retinal Detachment
 - B. Superficial punctate keratitis
 - C. Optic Neuritis
 - D. Glaucoma
42. Deposits and discoloration of the crystalline lens in the eye is due to ----- chemical.
- A. Sodium Chloride
 - B. Mercury
 - C. Hydro quinine
 - D. Lead
43. FDA classified of Ophthalmic lenses as -----Grade Medical devices
- A. II
 - B. III
 - C. V
 - D. I
44. SR Coating reduces Impact resistance by -----percentage
- A. 53%
 - B. 67%
 - C. 70%
 - D. 43%
45. Convert Snellen's acuity of 20/160 into logMAR units.
- A. 0.9
 - B. 0.6
 - C. 0.5
 - D. 0.4
46. What is the percentage of Sodium Fluorescein used in Fundus Fluorescein Angiography?
- A. 5ml or 25%
 - B. 10 ml of 25%
 - C. 10ml of 10
 - D. 2ml of 15%
47. Radioscope is used to measure -----
- A. BOZR
 - B. BOZD
 - C. Corneal thickness
 - D. Lens thickness
48. What is prebycusis?
- A. Reduced accommodation
 - B. Reduced hearing loss
 - C. Speaking difficulty
 - D. Myopia

49. The amount of convergence is calculated by using the formula:
- $1/d \times \text{IPD}$
 - $\text{IPD} \times 10/d$
 - $d \times \text{IPD}$
 - $\text{VD} \times d$
50. What is the refractive index of Cornea?
- 1.376
 - 1.577
 - 1.336
 - 1.000
51. Roving ring scotoma is seen in -----
- Aphakia
 - Retinal detachment
 - Antimetropia
 - Nanophthalmos
52. Commonest cause of posterior staphyloma is:
- Glaucoma
 - Retinal detachment
 - Iridocyclitis
 - High myopia
53. Aniseikonia means:
- Dioptric difference
 - Imagesize difference
 - Space difference
 - Stereopsis difference
54. Misdirection of eyelashes is known as:
- Ectropion
 - Trichiasis
 - Entropion
 - Distichiasis
55. What is the percentage of Cyclopentolate Hydrochloride used in Children?
- 10%
 - 5%
 - 1%
 - 0.5%
56. Lenses have laser marks engraved in the lenses. The marks and location are:
- add power in upper right quadrant
 - type of lens, temporal side – bifocal add, nasal side
 - add power at temporal side – type of lens, nasal side
 - fitting cross at center
57. The desired pantoscopic tilt of a frame is:
- 12 – 14 degrees
 - 10 – 12 degrees
 - 8 – 10 degrees
 - 14 – 16 degrees

58. A centering chart provided by the lens manufacturer will show all but one of the following:
- A. PD measurements
 - B. Seg height
 - C. Where greatest add power is
 - D. Prescription of lenses
59. In progressive addition lenses, increase in power is caused by an increase in:
- A. Curvature in the progressive zone
 - B. Radius in the progressive zone
 - C. Diameter in the progressive zone
 - D. None of the above
60. Which one of the following curves on a rigid corneal lens has the largest radius?
- A. Back optic zone radius
 - B. Secondary curve
 - C. Tertiary curve
 - D. Intermediate curve
61. Hydrogen peroxide kills microorganisms by:
- A. denaturing microbial proteins.
 - B. creating a hypotonic environment that results in cell damage.
 - C. interfering with ribosomal activity.
 - D. creating free radicals that lead to intracellular damage.
62. Which one of the following components is known for its large molecule size and is used in contact lens care products?
- A. Polyquad
 - B. Benzalkonium chloride
 - C. Polyaminopropyl biguanide
 - D. Ethylene diamine tetraacetate
63. What is the area of a contact lens measured with a radiuscope?
- A. Central 0.30 mm
 - B. Central 0.60 mm
 - C. Any area of 0.30mm
 - D. Any area of 0.60 mm
64. Polyaminopropyl biguanide reacts with phospholipids of the cell walls causing:
- A. membrane damage.
 - B. unlimited cell death.
 - C. cell content breakage.
 - D. nucleus death.

65. A tri-curve rigid gas permeable contact lens has the following parameters:

Base curve:	7.50 mm
Overall diameter:	9.40 mm
Peripheral curve width (1):	0.40 mm
Peripheral curve width (2):	0.40 mm

The optic zone diameter of the lens would be:

- A. 7.50 mm.
 - B. 7.80 mm.
 - C. 8.30 mm.
 - D. 8.60 mm.
66. Which one of the following statements regarding the assessment of wettability of a contact lens material is NOT true?
- A. In the sessile drop method, a large contact angle indicate poor wettability.
 - B. In the sessile drop method, the advancing angle is determined by adding more water.
 - C. In the captive bubble method, the air is introduced under a lens in a wet cell.
 - D. In the captive bubble method, the water is introduced on a lens surface without a wet cell.
67. Which one of the following prescriptions given below carry the same power?
- A. +2.50 / -1.00 X 90 & +1.50 / -1.00 X 180
 - B. +2.50 / 1.00 X 90 & +1.50 / +1.00 X 90
 - C. 0.00 / -1.00 X 60 & -1.00 / +1.00 X 150
 - D. All of the above
68. What is the longitudinal chromatic aberration of a +6.00 D lenses made from polycarbonate?
- A. 0.20D
 - B. 0.40D
 - C. 0.10D
 - D. 0.15D
69. Which instrument provides laser-based, noncontact, non-invasive imaging of the retina?
- A. Optical Coherence Tomography Scanner
 - B. Fundus Photography
 - C. Pachymetry
 - D. Automated Keratometers
70. LASIK:
- A. is contraindicated in patients with thin cornea
 - B. involves the use of microtome
 - C. involves the creation of a complete circular flap
 - D. can be repeated by lifting the flap created if further refinement is necessary
71. During clinical refraction:
- A. accommodation results in a more myopic prescription
 - B. the visual acuity is measured binocularly for distance and near
 - C. occlusion is recommended for patient with nystagmus to reduce the ocular movement
 - D. a high minus lens over the non-examining eye of a patient with bilateral congenital nystagmus can reduce the nystagmus

- 72. Fogging:**
- reduces or eliminates accommodation
 - brings the image behind the retina
 - uses strong plus lenses
 - is achieved by adding minus sphere power to plus corrections
- 73. Using minus cylinder during refraction:**
- avoids stimulation of accommodation in young hypermetropic patients
 - may overcorrect hypermetrope in the elderly
 - may overcorrect hypermetrope in cycloplegic refraction
 - may undercorrect myope patients
- 74. A 39 year-old myopic man recently changes his glasses and find them uncomfortable despite having a visual acuity of 6/6 in both eyes. The following may be responsible:**
- over-correction of myopia
 - onset of presbyopia
 - change of lens form
 - change of axis
- 75. The direct ophthalmoscope:**
- gives an angular magnification of 15X
 - gives a real erect image
 - makes the disc of a myope appears larger than that of a hypermetrope
 - makes the disc of a hypermetrope larger than that of an emmetrope
- 76. With regard to macular holes, which one of the following statements is true?**
- They are equally common in men and women
 - Stage 1 macular holes are managed by observation as they commonly resolve spontaneously
 - The risk of developing a macular hole increases after posterior vitreous detachment
 - They are complicated by rhegmatogenous retinal detachment in approximately 5% of idiopathic cases
- 77. How much prism is induced if a patient looks through a +6.00 D lens 15 mm below its centre?**
- 9.00 \square DBU
 - 6.00 \square DBU
 - 9.00 \square DBD
 - 6.00 \square DBD
- 78. Which of the following corneal conditions is autosomal recessive?**
- Macular corneal dystrophy
 - Granular corneal dystrophy
 - Meesmann's corneal dystrophy
 - Fuchs' corneal endothelial dystrophy
- 79. Which of the following conditions is the most likely to occur following a corneal abrasion?**
- Epithelial basement membrane dystrophy
 - Corneal hydrops
 - Keratoconus
 - Recurrent erosion

80. Fifth nerve palsy could cause:

- A. Ptosis
- B. Proptosis
- C. Neuropathic keratopathy
- D. Lagophthalmos

PART II - C - NURSING

41. What supplemental medication is most frequently ordered in conjunction with furosemide (Lasix)?
- A. Chloride
 - B. Digoxin
 - C. Potassium
 - D. Sodium
42. The position of patient during immediate postoperative period of tonsillectomy surgery is:
- A. Sim's position
 - B. Prone position
 - C. Lateral position
 - D. Rose position
43. The study of distribution and determinants of the disease is called:
- A. Epidemiology
 - B. Entomology
 - C. Pathology
 - D. Community
44. The scientific method of study of human population is:
- A. Anthropology
 - B. Demography
 - C. Ecology
 - D. Sociology
45. Positive Homan's sign is interpreted as:
- A. Deep venous thrombosis
 - B. Pulmonary embolism
 - C. Pneumothorax
 - D. Stroke
46. The system of storage and transport of vaccine at low temperature is called:
- A. Cold chain system
 - B. Vaccine chain system
 - C. Vaccine carrier
 - D. Ice linked refrigerate
47. The saturation level of oxygen in the blood can be assessed by using:
- A. Spirometer
 - B. Pulse oximetry
 - C. Tonometer
 - D. Cardiac monitor
48. Increase in the size of the muscle of the arm in a weight lifter is an example of:
- A. Hyperplasia
 - B. Hypertrophy
 - C. Metaplasia
 - D. Dysplasia

- 49. The volume of air that moves in and out of lungs with each respiration is:**
- A. Tidal volume
 - B. Minute volume
 - C. Lung capacity
 - D. Lung reserve
- 50. Core body temperature is:**
- A. Skin temperature
 - B. Axilla temperature
 - C. Rectal temperature
 - D. Oral temperature
- 51. In which position, do you keep a patient with breathing difficulty:**
- A. Sim's position
 - B. Prone position
 - C. Supine position
 - D. Fowler's position
- 52. Uterus turned inside out is called:**
- A. Acute inversion of the uterus
 - B. Cervical dystocia
 - C. Rupture uterus
 - D. Prolapse uterus
- 53. According to Erikson "a sense of industry develops during":**
- A. Infancy
 - B. Toddler period
 - C. Preschool age
 - D. School age
- 54. The type of necrosis seen in tuberculosis is:**
- A. Coagulative necrosis
 - B. Liquefactive necrosis
 - C. Caseous necrosis
 - D. Gangrenous necrosis
- 55. As a psychiatric nurse, you would assess the patient's cognitive status with help of:**
- A. Mini mental status examination
 - B. Rating tool
 - C. Process recording
 - D. Advanced technology
- 56. Which of the following is a social motive?**
- A. Hunger
 - B. Thirst
 - C. Pain avoidance
 - D. Achievement
- 57. Which of the following scale helps to assess the impaired consciousness?**
- A. Glasgow coma scale
 - B. Visual analogue scale
 - C. Beck Depression scale
 - D. Muscle power grade scale

58. Which of the following determinants of health is a 'downstream' determinant?

- A. Housing
- B. Employment
- C. Age
- D. Education

59. ICDS scheme is delivered in villages through:

- A. Auxiliary nurse and midwives
- B. Multipurpose workers
- C. Accredited social health activists
- D. Anganwadi workers

60. In DOTS strategy 'D' & 'O' stand for which of the following:

- A. Drug out
- B. Directly observed
- C. Daily observed
- D. Daily order

61. Which scientific method focuses on testing hypotheses developed from theories?

- A. Deductive method
- B. Inductive method
- C. Hypothesis method
- D. Pattern method

62. Which of the following is necessary in obtaining informed consent?

- A. A description of the statistical analyses that will be carried out
- B. A description of the purpose of the research study
- C. A description of the reliability and validity of test instruments
- D. A list of publications that the researcher has had in the last ten years

63. IRB is an acronym for which of the following?

- A. Internal Review Board
- B. Institutional Rating Board
- C. Institutional Review Board
- D. Internal Request Board

64. If data collection is done in several periods, the research is said to be:

- A. Cross-sectional
- B. Longitudinal
- C. Basic
- D. Field

65. The sum of curricular and co-curricular activities is:

- A. Aim
- B. Curriculum
- C. Pedagogy
- D. Summative evaluation

66. The literal meaning of philosophy is?
- A. Love of knowledge
 - B. Love of truth
 - C. Love of values
 - D. Love of wisdom
67. Epistemology deals with:
- A. Knowledge
 - B. Reality
 - C. Values
 - D. Culture
68. Which of the following refers to inferring about the whole population based on the observations made on a small part?
- A. Deductive inference
 - B. Inductive inference
 - C. Pseudo-inference
 - D. Objective inference
69. Which of the following type of non-probability sampling described as a deliberate selection of individuals by the researcher based on predefined criteria?
- A. Accidental sampling
 - B. Convenience sampling
 - C. Purposive sampling
 - D. Quota sampling
70. Josphin emphasizes to the team that they need to put their efforts together towards the attainment of the goals of the program. Which of the following principles refers to this?
- A. Span of control
 - B. Unity of direction
 - C. Unity of command
 - D. Command responsibility
71. Which of the following generally cannot be done in qualitative studies conducted in the field?
- A. Getting informed consent
 - B. Keeping participants from physical harm
 - C. Maintaining consent forms
 - D. Having full anonymity rather than just confidentiality
72. Which of the following is not an ethical guideline for conducting research with humans?
- A. Getting informed consent of the participant
 - B. Telling participants they must continue until the study has been completed
 - C. Keeping participants' identity anonymous
 - D. Telling participants they are free to withdraw at any time.
73. According to crow and crow the purpose of formal education is to?
- A. make students more intelligent
 - B. make students active and constructive members of society
 - C. form definite opinions in the mind of students
 - D. create good name for the nation

74. Which of the following refers to the flow of information among persons at different levels, who have no direct reporting relationships?

- A. Horizontal communication
- B. Diagonal communication
- C. Upward communication
- D. Downward communication

75. Which of the following is described as taking a sample from the population by means of a procedure that provides every constituent a chance to be involved as a sample?

- A. Non-probability sampling
- B. Probability sampling
- C. Lottery method
- D. High-density sampling

76. To evaluate a patient for hypoxia, which laboratory test is most likely advised?

- A. Red blood cell count
- B. Sputum culture
- C. Total haemoglobin
- D. Arterial blood gas (ABG) analysis

77. Priorities of Planning in Nursing Process is done by:

- A. Information processing model
- B. Interpersonal theory
- C. Stages of illness model
- D. Maslow's hierarchy of human needs

78. This the overall plan of rotation of all students in a particular educational institution.

- A. Course plan
- B. Clinical rotation plan
- C. Curriculum plan
- D. Master rotation plan

79. Silence is a communication technique used during an interview to:

- A. Show respect
- B. Change the topic
- C. Encourage the patient to continue talking
- D. Clarify information

80. Which of the following is not a type of validity?

- A. Content validity
- B. Face validity
- C. Time validity
- D. Predictive validity