

1. The research that is especially carried out to test and validate the study hypotheses is termed
 - a. Fundamental research
 - b. Applied research
 - c. Conclusive research
 - d. Exploratory research
2. A screening test is used in the same way in two similar populations, but the proportion of false-positive results among those who test positive in population A is lower than that among those who test positive in population B. What is the likely explanation for this finding?
 - a. It is impossible to determine what caused the difference
 - b. The specificity of the test is lower in population A
 - c. The prevalence of disease is lower in population A
 - d. The prevalence of disease is higher in population A
3. In a small pilot study, 12 women with endometrial cancer (cancer of the uterus) and 12 women with no apparent disease were contacted and asked whether they had ever used estrogen. Each woman with cancer was matched by age, race, weight, and parity to a woman without disease. What kind of study design is this?
 - a. Prospective cohort study
 - b. Retrospective cohort study
 - c. Case-control study
 - d. Cross-sectional study
4. A researcher wants to investigate if tea consumption (assessed by a biomarker for tea metabolism) increases the risk of CHD. He uses a case-control study to answer this question. CHD is rare in younger people. Which two groups are best to enroll and compare for this purpose?
 - a. The group of CHD cases and a group of those who do not have CHD individually matched to the cases for tea metabolism biomarker
 - b. The group of CHD cases and a group of those who do not have CHD frequency matched to the cases for tea metabolism biomarker
 - c. The group of CHD cases and a group of those who do not develop CHD, matched for age
 - d. A random sample of those who drink tea and a random sample of those who do not drink tea, matched for age
5. The major purpose of random assignment in a clinical trial is to:
 - a. Help ensure that study subjects are representative of the general population
 - b. Facilitate double blinding (masking)
 - c. Ensure that the study groups have comparable baseline characteristics
 - d. Reduce selection bias in the allocation of treatment
6. The purpose of a double blind or double masked study is to:
 - a. Achieve comparability of treated and untreated subjects
 - b. Reduce the effects of sampling variation
 - c. Avoid observer and subject bias
 - d. Avoid observer bias and sampling variation
7. Which of the sets of activities best indicate the cyclic nature of action research strategy?
 - a. Reflect, Observe, Plan, Act
 - b. Observe, Act, Reflect, Plan
 - c. Act, Plan, Observe, Reflect
 - d. Plan, Act, Observe, reflect
8. A research intends to explore the result of possible factors for the organization of effective mid-day meal interventions. Which research method will be most appropriate for this study?
 - a. Descriptive survey method
 - b. Historical method
 - c. Ex-post facto method
 - d. Experimental method
9. What is the use of Factorial Analysis?
 - a. For setting the hypotheses
 - b. To understand the difference between two variables
 - c. To understand the relationship between two variables
 - d. To understand the difference between various variables
10. All the following are components of 'FINER' criteria for a research question EXCEPT
 - a. Feasible
 - b. Reliable
 - c. Novel
 - d. Ethical
11. Which of the following about PubMed is incorrect?
 - a. PubMed comprises more than 25 million citations for biomedical literature.
 - b. Citations may include links to full-text article from PubMed Central.
 - c. PubMed is developed and maintained by the National Centre for Biotechnology Information (NCBI), at the U.S. National Library of Medicine (NLM).
 - d. PubMed is a paid service provider for searching of literature.
12. The following study design provides group exposure and group response/outcome without knowing the individual exposure and response for a specific health problem.
 - a. Ecological study
 - b. Cross-sectional survey
 - c. Case report
 - d. Case series
13. The ability of a tool to correctly measure what it is supposed to measure is called as
 - a. Precision
 - b. Validity
 - c. Reliability
 - d. Consistency
14. Which of the following statement is true regarding Participant Observation
 - a. Observer becomes a part of the event/group
 - b. Systematic collection of data is easy
 - c. Analytic methods for observation are well described
 - d. Data is brief as compared to in-depth interviews
15. The list of all individuals in the study population from whom study participants in a research are to be selected is known as
 - a. Sampling frame
 - b. Study population
 - c. Sampling unit
 - d. Study sample
16. A researcher wants to estimate the prevalence of surgical site infection following cesarean section at a tertiary care hospital. What would be the minimum number of the sample size to estimate the magnitude of surgical site infection following cesarean section if it is estimated that the proportion of surgical site infection will be 10% in the hospital considering 5% absolute precision and 95% confidence level ($Z_{\alpha/2} = 1.96$)
 - a. 100
 - b. 138
 - c. 148
 - d. 158

17. Glasgow coma Scale (GCS) is a scoring system to understand the consciousness level of a person. The score varies between 3 and 15. A researcher has included a question in research tool- "What is the GCS score during admission?" This question is an example of-
- Open question
 - Closed question with dichotomous option
 - Closed question with multiple option
 - Closed question with quantitative answers
18. In an observational study on menstrual hygiene among school going girls aged 14 to 16 years, informed assent will be required to be taken from the adolescent girls. In addition, informed consent will be required from:
- Parent of adolescent girls
 - Institutional Head
 - both
 - None of the above
19. Immediately after identification of research topic and statement of objectives, it may be preferable to
- Write protocol
 - Outline one-page concept paper
 - Prepare dummy tables as per the analysis plan
 - Seek review by an institutional ethics committee
20. A study participant can be forced by the investigator to continue in a trial against his will. This is in conflict with which of the following ethical principles?
- Autonomy
 - Justice
 - Beneficence
 - None of the above
21. A biceps curl using a dumbbell is an example of an:
- Isometric Exercises
 - PNF exercise
 - Isokinetic Exercise
 - Isotonic exercise
22. Herniation's of the nucleus pulposus into the vertebral body refers to
- Protrusion
 - Extrusion
 - Disc prolapse
 - Schmorl's nodules
23. Which of the following increase the intrathecal pressure?
- Coughing
 - Deep breathing
 - Laughing
 - All of above
24. The nerve vulnerable to injury in the posterolateral knee as it winds around the head of the fibula is
- Tibial nerve
 - Common peroneal nerve
 - Saphenous nerve
 - Femoral nerve
25. In idiopathic scoliosis, the vertebral bodies rotate into the _____ of the curve, with the spinous processes going towards the _____ of the curve.
- concavity; convexity
 - convexity; concavity
 - concavity; concavity
 - convexity; convexity
26. Which of the following are non-electrocardiographic indicators of possible CHD?
- Rectal temperature and pulse
 - Blood pressure and heart rate response to exercise
 - Blood pressure and chest pain
 - Systolic blood pressure and SPO₂
27. Effectiveness of regular physical activity for weight loss relates closely to
- Intensity of exercise
 - Aerobic capacity of the person
 - Degree of excess body fat
 - VO₂ max of individual
28. Forward bending from waist after intense exercise facilitates
- Venous return
 - Washout of lactic acid
 - Thermal regulation
 - Breathing
29. Which of the following, if occurs in submaximal exercise, often tells about cardiac problem:
- Decreased venous return
 - Tachycardia
 - Bradycardia
 - Tachypnoea
30. With an increasing number of sprints,
- anaerobic contribution progressively increases
 - pH of muscle falls below 6
 - relative contribution of aerobic metabolism increases
 - maximum power generated increases
31. Which of the following is not a metabolic adaptation to endurance training?
- Increased max O₂ uptake
 - Increased adrenaline response to exercise
 - Lower RER during submaximal exercise
 - Increased antioxidant capacity
32. During high intensity exercise, pH is lower in
- Blood
 - Lymphatic fluid
 - Extramuscular space
 - Intramuscular space
33. Which of the following is not a criteria for selection of patients for Functional Electrical Stimulation (FES)?
- Ability to walk independently at a speed more than 25 m/min
 - The major gait problem of foot drop
 - Equinus contracture
 - Intact proprioception
34. The most appropriate splint used in Erb's palsy is
- Aeroplane splint
 - Cock-up splint
 - C-Splint
 - Opponens splint
35. Syme's amputation is performed at the distal level of
- Tibia and fibula
 - Radius and ulna
 - Humerus
 - Femur

36. **Small, myelinated fibres transmitting pricking pain at a speed of about 15 m/sec refers to**
- C-fibres
 - A-delta fibres
 - Both C and A-delta fibres
 - None of above
37. **Which of the following electrical currents are used in management of pain?**
- Diathermic currents
 - Faradic and galvanic currents
 - TENS and Interferential currents
 - All of above
38. **Which of the following is not a physiological effect of cold?**
- Decreases afferent nerve velocity
 - Decreases vascular permeability
 - Increases muscle contraction
 - Reduces cellular metabolism
39. **Which of the following is not a temporal variable of gait?**
- Cadence
 - Speed
 - Stride and step time
 - All of above
40. **In stroke, the step length of paretic side is _____ in comparison to non-paretic side.**
- Greater
 - Lesser
 - Equal
 - None of above
41. **Contraction of muscles accompanied by simultaneous inhibition of their antagonists is called**
- Irradiation
 - Reciprocal innervation
 - Successive induction
 - After discharge
42. **Reflex inhibiting patterns are used in**
- NDT
 - Roods approach
 - Brunnstrom's movement therapy
 - PNF
43. **Yergason test is indicated in**
- Subacromial bursitis
 - Rotator cuff tear
 - Shoulder dislocation
 - Bicipital tendinitis
44. **Rapid eye movement from one point of fixation to another is called**
- Saccadic eye movements
 - Pursuit eye movements
 - Convergence
 - None of above
45. **During Mc Murray Test what does clicking sound indicate:**
- instability of ankle joint
 - a tear of the meniscus
 - joint laxity of the leg being tested
 - a complete tear of ACL
46. **Wisconsin Gait Scale (WGS) is applicable in:**
- Stroke
 - Spinal Cord Injury
 - Parkinson's Disease
 - Poliomyelitis
47. **Intrinsic muscles of hand are paralysed in**
- Erb's paralysis
 - Klumpke's paralysis
 - Injury to the nerve to serratus anterior
 - All of above
48. **Which of the following is not a muscle of forced expiration?**
- Transverse abdominis
 - Rectus abdominis
 - Lattisimusdorsi
 - Diaphragm
49. **In initial stage of Parkinson disease the most typical involuntary movement is the following:**
- A.chorea
 - B.atetosis
 - C.tremor
 - D.dystonia
50. **The closed basket weave taping technique is used to support which of the following**
- Ankle
 - Arch
 - Shin
 - Knee
- *****

Physiotherapy