



VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
(Deemed to be University under section 3 of the UGC Act 1956)

Public Health

Instructions / Note:

1. Answer all the questions. Each question carries one mark.
2. No negative marks for wrong answers.
3. Read each question carefully and answer in the OMR sheet provided for each question with only blue/ black pen to fill the circles in the OMR Sheet.
4. Return the question paper along with the OMR sheet.

Time: 90 Minutes

Venue: _____.

[35X1=35]

Part - B

1. The Father of epidemiology is
 - a. Robert Koch
 - b. John Snow
 - c. Joseph Lister
 - d. Ronald Ross
2. Endemic means that a disease
 - a. Occurs clearly in excess of normal expectancy
 - b. Is habitually present in human populations
 - c. Affects a large number of countries simultaneously
 - d. Is prevalent among animals
3. Which of the following is the analytical study design
 - a. Ecological study
 - b. Cohort study
 - c. Randomised controlled study
 - d. Quasi-experimental study
4. Numerator is not the part of denominator in
 - a. Rate
 - b. Proportion
 - c. Ratio
 - d. Prevalence



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- 5.The rejection probability of the Null Hypothesis, when it is true, is called?
- Level of Rejection
 - Level of Margin
 - Level of Significance
 - Level of Confidence
- 6.Type 1 error occurs when?
- We reject H_0 if it is False
 - We accept H_0 if it is True
 - We accept H_0 if it is False
 - We reject H_0 if it is True
- 7.A normal distribution is symmetric about
- Standard variation
 - Mean
 - Covariance
 - Variance
- 8.If x and y are uncorrelated variables then this implies:
- The absence of any linear relationship between them
 - The absence of any quadratic relationship between them
 - The absence of any logarithmic relationship between them
 - The absence of any trigonometric relationship between them
- 9.Where, when, and how to apply knowledge is referred to as.....
- Data
 - Information
 - Knowledge
 - Wisdom
- 10.SWOT stands for
- Services worldwide optimization and transport
 - Special weapons for operations for timeless
 - Strength weakness opportunities and threats
 - Strength worldwide overcomes threats
- 11.An information system that monitors the elementary activities and transactions of the organization is.....
- Management level system
 - Operational level system
 - Knowledge level system
 - Strategic level system
- 12.Which type of conflict management technique is described as cooperating and that one side gives way to the other?
- Avoiding
 - Accommodating
 - Competing
 - Compromising



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13. Which of the following statements are true about the study of macroeconomics?
- a. It is a study of economics that deals with households, government, firms and demand-supply
 - b. It is a study of economics that deals with households, government, firms and the external sector
 - c. It is a study of economics that deals with price levels, profit, expenditure and cost
 - d. It is a study of economics that deals with individual markets for goods and services
14. How many ways is cost classification possible?
- a. There are many ways to use it.
 - b. Two ways
 - c. Three ways
 - d. Four ways.
15. Which cost is incurred even if the company is closed?
- a. Sunk cost
 - b. Historical cost
 - c. Shut-down cost
 - d. Imputed cost
16. _____ leads to an increase in the supply of a commodity without a change in its price.
- a. Rise in supply
 - b. Contraction in supply
 - c. Expansion in supply
 - d. Fall in supply
17. "Health is a state of complete physical, mental and social well-being and not merely the absence of disease". This definition was given by
- a. World health organization
 - b. Centre for disease control
 - c. Pan American health organisation
 - d. International labour organisation
18. 'The science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society'. This definition of public health was given by
- a. John Snow
 - b. C.E.A Winslow
 - c. Edward Jenner
 - d. Lemuel Shattuck
19. Alma Ata's declaration was in
- a. 1950
 - b. 1992
 - c. 1978
 - d. 1986
20. An international conference on health promotion in 1986 was held in



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- a. Ottawa
 - b. Adelaide
 - c. Jakarta
 - d. Bangkok
21. The systematic ordering of social relations by facts of choice and decisions
- a. Social structure
 - b. Social system
 - c. Social organization
22. A cluster of related traits is called
- a. Culture norms
 - b. Cultural collectively
 - c. Culture complex
 - d. Cultural uniformity
23. The health belief model was developed by
- a. Rogers (1975)
 - b. Rosenstock (1966)
 - c. Ajzen (1991)
 - d. Fisher and Fisher (1992)
24. Milk is a poor source of?
- a) Calcium
 - b) Protein
 - c) Carbohydrate
 - d) Vitamin C
25. The availability of proteins and energy and inadequate absorption in the body is known as
- (a) pepsin energy malnutrition
 - (b) pepsin enzyme malnutrition
 - (c) protein energy malnutrition
 - (d) protein excess malnutrition
26. Disorders related to nutrition are known as
- (a) balancing of nutrition
 - (b) insolubility of nutrition
 - (c) solubility of nutrition
 - (d) malnutrition
27. Effective communication is evaluated by
- A. Teamwork
 - B. Feed back
 - C. IPC skills
 - D. Questionnaire
28. The audience remains as the passive listeners in _____ method
- A. Group discussion
 - B. Roleplay
 - C. Panel discussion
 - D. Lecture
29. What is the purpose of the logic model of planning?



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- A. To identify the inputs, outputs, and outcomes of a program
 - B. To develop a detailed project schedule
 - C. To create a budget for the project
 - D. To evaluate the impact of the program on the community
30. What is the step in the policy-making process in which problems and solutions are identified and legislation is developed?
- a. Policy Formulation
 - b. Policy Implementation
 - c. Policy Modification
 - d. Decision making
31. Why is the delegation of power to administrative agencies (bureaucracy) by the legislature a particular challenge for democratic theory?
- a. Because government is so complex.
 - b. Because bureaucrats are not elected by the people
 - c. Because administrative agencies may have particular expertise in dealing with certain problems
 - d. Because administrative agencies have more flexibility than the legislature
32. The most pervasive and fundamental authority of local governments is the
- a. police power to protect the public health and welfare
 - b. taxing power
 - c. zoning power
 - d. economic development power
33. Temporary hearing loss occurs in which frequency range of sound?
- a) 4000-6000 Hz
 - b) 3000-4000Hz
 - c) 500-2000 Hz
 - d) 1000-3500 Hz
34. What is the logo launched under FSSAI (Food Safety and Standards Authority of India) for fortified foods?
- a) Square with an F and a + sign with a ring
 - b) Circle with an F and a + sign with a ring
 - c) Rectangle with an F and + sign with a ring
 - d) Triangle with an F and + sign with a ring
35. A worker employed in a cotton textile industry is likely to suffer from which of the following occupation-associated disease?
- a) Byssinosis
 - b) Anthracosis
 - c) Bagassosis
 - d) Silicosis





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TCM

Part – B

[35x1=35]

1. Stage 3 of acute kidney injury according to AKIN classification is
 - a. GFR decrease by 50-75%
 - b. Urine output <0.5ml/kg/h for 12 hrs
 - c. Creatinine rise of >0.3mg/dl
 - d. Rise in serum creatinine > 3 times
2. Not true regarding shock
 - a. Tachycardia is not seen in class 1 shock
 - b. Hypotension is not seen in class 2 shock
 - c. Pulse pressure is normal in class 2 shock
 - d. Class 4 shock involves loss of > 40 % blood volume
3. Goals of treatment in Traumatic brain Injury include all except
 - a. SBP \geq 90 mm Hg
 - b. MAP \geq 85 mm Hg
 - c. ICP < 20 mm Hg
 - d. CPP \geq 60 mm Hg
4. A 26-year old male presents to ED with penetrating trauma to the left lower limb. No hard or soft signs of vascular injury on examination. ABI is <0.9. What is the next step?
 - a. Immediate vascular surgery consult
 - b. Observation
 - c. CT angiography
 - d. Shift to OT
5. Grade 4 renal injury indicates
 - a. Shattered kidney
 - b. Perirenal hematoma
 - c. Renal laceration with no extension into the collecting system
 - d. Renal laceration with extension into the collecting system
6. Which is not an absolute indication for laparotomy?
 - a. Penetrating trauma to abdomen with GI evisceration
 - b. Blunt trauma abdomen with free air under diaphragm
 - c. Blunt trauma abdomen with peritonitis
 - d. Blunt trauma abdomen with hemoperitoneum on CECT abdomen
7. Systolic blood pressure less than ___ mmHg represents shock after the age of 65 years
 - a. 90
 - b. 100
 - c. 110
 - d. 120



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8. Which is true regarding incomplete cord syndromes?
- Anterior cord syndrome has poor prognosis
 - Central cord syndrome occurs due to hyperflexion
 - Weakness is more in lower extremities in central cord syndrome
 - In Brown-Sequard syndrome, contralateral loss of vibration and proprioception is seen
9. Indication for early ventilatory support in flail chest is
- Fracture of 5 or more ribs
 - Presence of shock
 - Age >50 years
 - Comorbid renal disease
10. True about lung contusion
- 70% are not visible on X-rays
 - Segmental distribution
 - Not seen for 12-24 hours after trauma
 - More common on right side
11. The outcome of resuscitation and the likelihood of survival are greatest when the initial cardiac rhythm is which among the following?
- Asystole
 - Idioventricular rhythm
 - Ventricular fibrillation
 - Pulseless bradycardia
12. What is the most common cause of primary cardiac arrests in children?
- Coronary artery disease
 - Respiratory failure
 - Toxicological exposure
 - Head injury
13. For every liter of blood loss in hemorrhage, how many liters of crystalloids are required to restore the volume?
- 1
 - 2
 - 3
 - 4
14. Match the following,
- | | |
|------------------------------------|-----------------------------|
| A. First degree burns | 1. No blisters, painful |
| B. Superficial second-degree burns | 2. Bone involvement + |
| C. Third degree burns | 3. Blisters +, very painful |
| D. Fourth degree burns | 4. Charred, no pain. |
- A-1, B-3, C-4, D-2
 - A-1, B-3, C-2, D-4
 - A-3, B-1, C-4, D-2
 - A-3, B-1, C-2, D-2



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15. Which of the following is not component of primary blast injury?
 - a. spalling
 - b. shearing
 - c. implosion
 - d. explosion
16. Which of the following is a component of seen HAZMAT planning guidelines?
 - a. Availability of toxicology lab in all community centers
 - b. isolation and scene control
 - c. Avoid co-location of hazardous units within 500 km of communities
 - d. Strict penalisation of all hazardous accidents
17. Which of the following is CORRECT with regard to acute radiation syndrome?
 - a. more than 200 rads – cardiovascular collapse
 - b. more than 600 rads – GI bleeding
 - c. more than 2000 rads – GI bleeding
 - d. more than 600 rads – pancytopenia
18. Identify the INCORRECT statement regarding wound repair?
 - a. hair removal prior to wound repair is necessary
 - b. shaving of hair allows dissemination of bacteria
 - c. scalp hair from both sides of the wound may be used to close the scalp laceration
 - d. hair removal prior to wound repair does not reduce the incidence of infection
19. Identify the wrong suture material size based on laceration location?
 - a. scalp – 3-0 or 4-0
 - b. extremities – 4-0
 - c. trunk – 4-0
 - d. face – 3-0
20. Identify the wrong statement pertaining to the testing of peripheral nerves and upper extremity?
 - a. radial nerve - dorsiflexion of wrist
 - b. median nerve – thumb abduction away from palm
 - c. median nerve – thumb interphalangeal joint extension
 - d. ulnar nerve - abduction of digits
21. A 40 year old male comes to ED with complaints of swelling in the left leg since 2 days. No history of fever. H/o thorn prick 2 days back in the same leg . No other comorbidities. On examination fluctuant swelling of 4x3 cm wit pus pointing present. What is the appropriate management?
 - a. Incision and drainage , no antibiotics required
 - b. Incision and drainage , discharge with antibiotics
 - c. Antibiotics alone
 - d. Admit the patient for drainage of abscess and IV antibiotics.
22. EMS is responding to a call at a local high school football game. One of the high school football players is unresponsive to verbal stimuli after a helmet-to-helmet collision with another player. His BP is 100/65 mm Hg, HR is 60 beats/minute, and RR is 12 breaths/minute. There is a small crack at the top of the helmet, but it is otherwise intact and strapped tightly to the patient's head. EMS calls medical control to request permission to remove his helmet in order to assess for head trauma. What is the most appropriate prehospital management of this patient?



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- a. Do not attempt to remove the helmet, maintain cervical spine precautions, and transfer the patient on a backboard to the hospital.
- b. While maintaining cervical spine precautions, carefully remove the helmet and assess for head injury
- c. Check the patient's pupils and if there is asymmetry, remove the helmet with cervical spine precautions
- d. Wait at the scene for a physician to arrive with an electric saw for removal of the helmet and further on-scene assessment.
23. Guidelines for cervical spine clearance in the field are all except
- a. absence of neck pain/tenderness
- b. no altered sensorium
- c. no distracting injuries
- d. age less than 11 years
24. A 25 year old female comes with alleged history sexual assault to the ED. Which of the following is not correct ?
- a. Make the patient comfortable by giving water to drink and ask her to change her clothings.
- b. forensic evidence after 72 hours of assault is slim and hence forensic examination is not necessary >72hours after assault.
- c. not every part of forensic evidence kit needs to be used, specify it according to the victims nature of assault.
- d. Even if the patient does not want evidentiary examination perform full history ,and general physical examination.
25. What is the GCS score for a person who opens his eyes to painful stimuli, makes some incomprehensible sounds and withdraws his right upper limb.
- a. 9
- b. 8
- c. 10
- d. 7
26. How much fluid does a 50 kg man with 60% burn surface area require in the first 24 hours following thermal burns
- a. 5 L
- b. 7.5 L
- c. 10 L
- d. 12.5 L
27. Which is the best access for resuscitation of an adult trauma patient in shock
- a. Wide bore peripheral line
- b. Single lumen central venous catheter
- c. Triple lumen central venous catheter
- d. Intraosseous catheter



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28. The most likely cause of raised temperature on postoperative day 2-4 is
- Atelectasis of lung
 - Wound infection
 - Chest infection
 - Anastomotic dehiscence
29. The best incision for the management of splenic injury is
- Roof top incision
 - Left paramedian incision
 - Left subcostal incision
 - Midline incision
30. Insulin resistance seen as a stress response in postoperative period after routine upper abdominal surgery persists for approximately
- 2 hours
 - 2 days
 - 2 weeks
 - 2 months
31. Which of the following is TRUE regarding the role of inotropic and vasopressor therapy in shock?
- It is not indicated as first-line therapy in hypovolemia.
 - These agents can compensate for the lack of adequate pre-load by improved coronary perfusion.
 - It is less useful in distributive shock states.
 - Inodilators should be used when vasodilation is resistant to catecholamines.
32. In which setting of diathermy is significant carbonisation expected?
- Cutting
 - Coagulation
 - Fulguration
 - Blend
33. The most common site of mandibular fracture is
- Mandibular body in the region of the canine tooth
 - Angle of the mandible through the last molar tooth
 - The neck of the condyle
 - Direct fracture of the symphysis
34. Regarding the surgical anatomy of the liver, which is false
- Middle hepatic vein lies in the plane dividing the right and left lobes
 - Caudate lobe is physiologically independent
 - Falciform ligament divides the liver into functional right and left lobes
 - Hepatic veins drain into the Inferior vena cava
35. Which intercostal space is chosen for the insertion of the Intercostal chest drain
- Second
 - Third
 - Fourth
 - Fifth





MLT

Part -B

[35x1=35]

1. Sum of all the scores divided by number of scores is called as
 - a. Mean
 - b. Mode
 - c. Median
 - d. Quartile
2. What is the mean value of following scores: 9, 8, 7, 7, 9, 8
 - a. 6
 - b. 7
 - c. 9
 - d. 8
3. Measure of dispersion is called as
 - a. Standard deviation
 - b. Mean
 - c. Variance
 - d. Mode
4. What is the mode from the given data?
94, 91, 81, 56, 90, 70, 65, 90, 90, 30
 - a. 70
 - b. 90
 - c. 100
 - d. 81
5. Skewness is defined as
 - a. $Sk = 3(\text{mean} - \text{median}) / \text{variance}$
 - b. $Sk = 9(\text{mean} - \text{median}) / \text{standard deviation}$
 - c. $Sk = 3(\text{mean} - \text{mode}) / \text{standard error}$
 - d. $Sk = 3(\text{mean} - \text{median}) / \text{standard deviation}$
6. The technique useful to find out the relation between pairs of characteristics measured on the same individual are
 - i. Correlation ii. Coefficient iii. Regression iv. Variance
 - a. i & ii
 - b. ii & iii
 - c. i & iv
 - d. i & iii



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7. Following statistical analysis is used to compare mean blood pressure of a group of people under two different settings.

- a. Paired T test
- b. Independent sample T test
- c. Oneway ANOVA
- d. Student t test

8. Following statistical analysis is used to compare mean cortex weight in mgs of two groups of rats.

- a. Paired T test
- b. Independent sample T test
- c. Oneway ANOVA
- d. Student t test

9. Following statistical analysis is used for proportions from >2 independent samples.

- a. Paired T test
- b. Chi-square test
- c. Fisherr's exact test
- d. Z test

10. _____ measures the strength of association between two study variables.

- a. Correlation
- b. Regression
- c. Variance
- d. Standard deviation

11. Percent of positive results in patients with the disease is called as

- a. Specificity
- b. Sensitivity
- c. Positive predictive value
- d. Negative predictive value

12. The statistical analysis used measure repeated measures is

- a. One way ANOVA
- b. Repeated measures ANOVA
- c. Chi square test
- d. Student t test

13. Consent should be in writing according to

- a. Declaration of Helsinki
- b. Belmont report
- c. Nuremberg code
- d. Sushrutha



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14. The study which is taken at a given point in time is called as

- a. Cross sectional study
- b. Case control study
- c. Cohort study
- d. Randomised study

15. The retrospective studies are

- a. planned in the present and takes place in the future.
- b. examines relationships based on past data.
- c. examines relationships based on future data
- d. done by cohort study.

16. Identify the continuous data from the following

- a. Weight
- b. Colour
- c. Gender
- d. Race

17. Identify the categorical data from the following

- a. Religion
- b. Colour
- c. Gender
- d. Location

18. The chart used for categorical data is

- a. Histogram
- b. Box plot
- c. Pie chart
- d. Ven diagram

19. The plots used to show the differences between two groups are _____.

- a. Box and Whisker plot
- b. Pie diagram
- c. Ven diagram
- d. Bar chart

20. Identify the measure of dispersion from the following

- a. Mode
- b. Median
- c. Mean
- d. Standard deviation



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21. Combining information from more studies in order to reach stronger conclusions is called as
- Cohort study
 - Meta analysis
 - Case control study
 - Cross sectional study
22. Which plot is used to portray the relationship between two variables?
- Bar plot
 - Scatter plot
 - Whisker plot
 - Box plot
23. All of the following are measure of central tendency **except** _____
- Mean
 - Standard deviation
 - Mode
 - Median
24. Result of treatment is compared in groups by _____
- Clinical trial
 - Retrospective study
 - Cross sectional study
 - Cohort study
25. What portion of the data is contained in the box portion in box - and - whiskers plot?
- 25%
 - 50%
 - 75%
 - 100%
26. Following measures are always equal for normal distributions.
- Mean and mode
 - Mode and median
 - Median and mean
 - Mean, mode, median
27. The sum of ten variables is 300, then mean value of variables is
- 10
 - 30
 - 20
 - 0
28. Probability of getting spade from well shuffled cards is
- 1
 - $\frac{1}{4}$
 - $\frac{1}{2}$
 - 2



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29. Qualitative variable is also known as
- Quantitative variable
 - Categorical variable
 - Continuous variable
 - Limited variable
30. A set of data has mean of 5 and standard deviation of 100. Then coefficient of variation is
- 5%
 - 10%
 - 100%
 - 0.5%
31. _____ is a measure of symmetry.
- Mean
 - Range
 - Quartile
 - Skewness
32. Range is
- Smallest value + largest value
 - Smallest value / largest value
 - Largest value / smallest value
 - Largest value - smallest value
33. The abbreviation CV refers to _____ in biostatistics.
- Central variable
 - Coefficient of variation
 - Coefficient of variance
 - Curriculum vitae
34. Range for following data is
25, 7, 5, 8, 3, 10, 12, 9
- 22
 - 25
 - 10
 - 23
35. Which of the following study design each patient receives multiple treatment successfully?
- Cohort design
 - Case control design
 - Cross over design
 - Cross sectional design

