

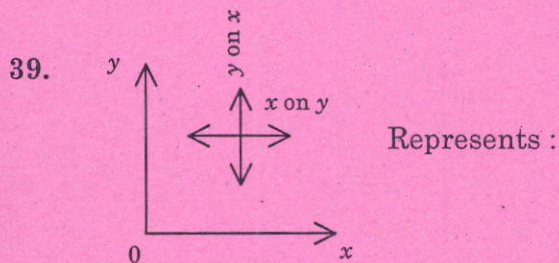
1. _____ hormone is synthesised by the adeno-hypo physics and its release is stimulated by Thyroid releasing factor from the hypothalamus.
(A) Growth hormone (B) Thyroid stimulating hormone
(C) Gonadotrophic hormone (D) Adreno cortico trophic hormone
2. Deep within the brain the hemispheres are connected by a mass of white matter called :
(A) Cerebellum (B) Pons varolii
(C) Medulla oblongata (D) Corpus callosum
3. _____ is a process by which the composition and volume of the glomerular filterate are altered during its passage through the convoluted tubules, the loop of henle and the collecting tubule.
(A) Selective reabs option (B) Secretion
(C) Simple filteration (D) None
4. Trypsinogen and chymotrypsinogen are converted to their active form in the presence of an enzyme :
(A) Lipase (B) Pancreatic amylase
(C) Ptyalin (D) Enterokinase
5. _____ is a dome shaped structure separating the thoracic and abdominal cavities.
(A) Rib cage (B) Sternum
(C) Diaphragm (D) Vertebral column
6. In _____ disease there is progressive painless enlargement of lymphnodes through out the body, often noticed first in the neck.
(A) Hodgkins disease (B) Malignant neoplastic metastases
(C) Non - Hodgkin lymphomas (D) Cushing's syndrome
7. The heart acts as a pump and its action consists of a series of events known as :
(A) Systole (B) Diastole
(C) Cardiac cycle (D) None
8. The disease caused due to the defect in the passage of copper absorbed by the intestine into circulation :
(A) Wilson's disease (B) Tetany
(C) Menke's disease (D) Addison's disease

9. Renal Rickets, Milkman's Syndrome, De Toni Fanconi syndrome are the disorders associated with the increased excretion of :
- (A) Calcium (B) Magnesium
(C) Iron (D) Phosphorus
10. The B-vitamin which can be synthesized from the essential amino acid tryptophan is :
- (A) Thiamine (B) Niacin
(C) Pyridoxine (D) Folic acid
11. Rickets in growing children and osteomalacia in adults are produced by a deficiency of :
- (A) Vit. A (B) Vit. D
(C) Vit. E (D) Vit. K
12. Cysteine is a ————— type of amino acid.
- (A) Sulphur containing amino acid (B) Acidic amino acid
(C) Basic amino acid (D) None
13. Number of milligrams of KOH required to neutralize the free fatty acids in a gram of fat is known as :
- (A) Saponification Number (B) Iodine Number
(C) Acid Number (D) Reichert-Meissl Number
14. ————— is a polyaccharide present in the exo-skeleton of invertebrates like the crab, lobster and insects.
- (A) Dextrin (B) Cellulose
(C) Pectin (D) Chitin
15. ————— is esterified with fatty acids for storage in the liver.
- (A) Carotene (B) Retinol
(C) Rhodopsin (D) None
16. The physical factors altering enzyme activity include :
- (A) Concentration of the enzyme and concentration of the products
(B) pH and Temperature
(C) Oxidising substances and Radiation
(D) All of these
17. According to ————— theory, the enzyme combines with the substrate to form enzyme-substrate complex.
- (A) Wurtz theory (B) Michaelis-Menton theory
(C) O'Sullivan and Thompson theory (D) Emil Fischer theory

18. The conjugated active form of the enzyme is known as :
- (A) Holoenzyme (B) Coenzyme
(C) Apoenzyme (D) All of these
19. In transamination, the enzyme _____ catalyze the transfer of the amino group of an amino acid to an alfa keto acid to form a new amino acid and a new keto acid.
- (A) Nitrite Reductase (B) Nitrogenase
(C) Transaminase (D) None
20. All the enzymes required for β - oxidation are present in the :
- (A) Endoplasmic reticulum (B) Cytosol
(C) Mitochondria (D) All of these
21. Glucagon is the hormone produced by the α - cells of the Islets of Langerhans and like Epinephrine, its secretion is also stimulated by :
- (A) Hypoglycemia (B) Hyperglycemia
(C) Nervous Regulation (D) None
22. The biologically active, naturally existing substances in plants that act as natural defense system in plants and show potential for reducing risk for cancer and Atherosclerosis are termed as :
- (A) Phytochemicals (B) Probiotics
(C) Prebiotics (D) Xenobiotics
23. The physical and psychological symptoms of pre-menstrual syndrome include :
- (A) Anxiety, Depression and mood swings (B) Fatigue, weight gain and swelling
(C) Breast pain Cramps and Backache (D) All of these
24. _____ is the period of life beginning with the appearance of secondary sex characteristics and ending with the cessation of somatic growth.
- (A) Childhood (B) Adolescence
(C) Adulthood (D) Infancy
25. _____ is/are needed for adequate mineralisation and maintenance of growing bone in children.
- (A) Calcium (B) Vit. D
(C) Both (A) and (B) (D) None
26. Severe abdominal pain in infants is known as :
- (A) Abdominal (B) Constipation
(C) Colic (D) Diarrhoea

27. A form of pica characterized by the consumption of substances such as dirt and clay :
- (A) Amylophagia (B) Geophagia
(C) Dysphagia (D) None
28. A posterior pituitary hormone that stimulates the movement of milk down to the nipple and uterine contractions during labor and after birth :
- (A) Oxytocin (B) Prolactin
(C) Thyroid (D) Parathyroid
29. A disease characterised by the kidney's inability to excrete waste products, maintain fluid and electrolyte balance and produce hormones :
- (A) Nephritis (B) End-stage renal disease
(C) Renal Osteodystrophy (D) Nephrosis
30. _____ is a method of removing waste products from the blood in which diffusion carries them from the blood through the semipermeable peritoneal membrane and into the dialysate.
- (A) Peritoneal Dialysis (B) Hemo Dialysis
(C) Renal Dialysis (D) None
31. Lipoproteins that contain more triglycerides than cholesterol which transport lipid from the liver to the peripheral circulation.
- (A) LDL (B) HDL
(C) VLDL and LDL (D) VLDL
32. _____ is/are the episode/s of hypoglycemia usually caused by excessive exogenous insulin, which stimulates the over production of counter regulatory hormones, resulting in an excessive release of glucose from the liver and hyperglycemia.:
- (A) Glucotoxicity (B) Dawn Phenomenon
(C) Both (A) and (B) (D) Somogyi effect
33. _____ is an impaired biologic response to either exogenous or endogenous insulin.
- (A) Insulin Resistance (B) Insulin Sensitivity
(C) Both (A) and (B) (D) None
34. An autosomal recessive disorder of copper metabolism in which excessive accumulation of copper occurs in the liver, central nervous system and kidney :
- (A) Wilson's Disease (B) Hepatic Encephalopathy
(C) Hepato renal syndrome (D) None
35. A chronic, granulomatous inflammatory disease of unknown etiology involving the small or large intestine that results in diarrhoea, strictures, fistulas, malabsorption and the need for surgical resection :
- (A) Crohn's Disease (B) Down's Syndrome
(C) Diverticulitis (D) Celiac Disease

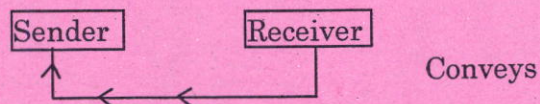
36. The Hb% of 10 pregnant woman are recorded as 7, 8, 9, 10, 11, 12, 13, 14.5, 15, 15.5 gm/ml. Variance of data is :
- (A) 10.3 (B) 12.1
(C) 8.1 (D) 11.6
37. One of these methods does not give the degree of correlation :
- (A) Karl Pearson's coefficient of correlation
(B) Rank correlation
(C) Regression lines
(D) Scatter diagram
38. The median value of distribution is 5.5 and the mean value is 6. Find the mode :
- (A) 5.5 (B) 6
(C) 4.5 (D) 5.25



- (A) Low degree negative correlation (B) High degree negative correlation
(C) Low degree positive correlation (D) No correlation
40. Marks of 10 students in statistics class test are 10,70,50,20,95,55,42,60,48,80. The median is :
- (A) 50 (B) 55
(C) 52.5 (D) 54.5
41. One of these sampling methods is a hit or miss procedure :
- (A) Quota sampling (B) Random sampling
(C) Purposive sampling (D) Convenience sampling
42. Essentials of sampling include :
- (i) Representiveness (ii) Homogeneity
(iii) Independence (iv) Statistical base
(A) (ii), (iii) and (iv) (B) (i), (ii) and (iii)
(C) (i), (ii) and (iv) (D) (i), (iii) and (iv)

43. Change of bright green colour of chlorophyll to olive green during continuous cooking is due to :
- (i) Disruption in the cell wall structure
 - (ii) Displacement of Mg^{+2} by hydrogen molecule
 - (iii) Formation of pheophytin 'a'
 - (iv) Strengthening of structure of chlorophyll
- (A) (i), (ii) and (iv) (B) (i), (iii) and (iv)
(C) (ii), (iii) and (iv) (D) (i), (ii) and (iii)
44. Enzyme not used for meat processing :
- (A) Pectin (B) Bromelain
(C) Ficin (D) Papain
45. Concentrated flavouring extract from spices :
- (A) Polysterene resin (B) Oleoresin
(C) Epoxyresin (D) Macroporous resin
46. Anthocyanidines play a significant role in :
- (A) Synthesis of collagen protein (B) Prevention of tumor growth
(C) Protection against cell damage (D) Build immunity against disease
47. Which of these have bacteriocidal activity against pneumococci and staphylococci?
- (A) Phospholipids (B) Lipo proteins
(C) Amino acids (D) Essential fatty acids
48. 15% dry matter of mushrooms constitute the sugar :
- (A) Innulin (B) Trehalose
(C) Dextrins (D) Glucose
49. One of these is a hydrophobic sol :
- (A) Fatty acids in water (B) Proteins in water
(C) Gelatin in water (D) Agar in water
50. Microorganism causing yellow colour in the creamy layer of milk :
- (A) *Pseudomonas fluorescens* (B) *Pseudomonas synxantha*
(C) *Pseudomonas synxantha* (D) *Pseudomonas putrefaciens*
51. Sporulation in a vegetative cell is favoured by :
- (A) Lag phase (B) Log phase
(C) Stationary phase (D) Death phase

52. A facultative aeroba potent to cause food poisoning :
- (A) Clostridium botulinum (B) Bacillus cereus
(C) Staphylococcus aureus (D) Clostridium perfringens
53. Carbohydrates from foods are utilised by :
- (A) Coliforms (B) Pseudomonas
(C) Staphylococcus (D) Streptococcus
54. Leukocidin, a toxin produced by bacteria can cause :
- (A) Dysentry (B) Destroys WBC
(C) Cause hyper oestrogen effect (D) Inhibits protein synthesis
55. Cereal grains and by-products are not infected by :
- (A) Fusarium tricintum (B) Aspergillus flavus
(C) Claviceps purpurea (D) Stachybotrys atra
56. _____ insecticide sprayed on tomatoes can be removed by washing with 2% salt water and cooking for 15 minutes.
- (A) Malathion (B) Chloropyritos
(C) Quinalphos (D) Cypermethrin
57. The compound used to maintain stability of Iodine in double fortified salt is:
- (A) Potassium Iodate (B) Ferrous Sulphate
(C) Sodium Hexameta Phosphate (D) Sodium Aluminium Silicate
58. In communication process :



- (A) Message (B) Feed back
(C) Adoption (D) Awareness
59. The Hira Ata Declaration 1978 emphasised on the need for :
- (A) Dissemination of information
(B) Changing human behaviour
(C) Individual and community participation
(D) Achievement of community health
60. Incidence of disease can be obtained by :
- (A) Case control studies (B) Cross sectional studies
(C) Longitudinal studies (D) Descriptive studies

61. Biochemical test conducted to assess the protein in nutrition surveys :
- (A) Red cell folate (B) Transferrin
(C) Serum folate (D) RBC glutathione reductase activity
62. The substantial aid from one of these organisations has led to the erection of penicillin plant near Pune in India :
- (A) UNICEF (B) CARE
(C) WHO (D) ICMR
63. A campaign is led to combat malnutrition as one of the main objects by :
- (A) World Bank (B) WHO
(C) FAO (D) Food and nutrition board
64. Component of photometer which detects transmitted light and convert it into electrical energy :
- (A) Galvanometer (B) Photo cell
(C) Condensing lens (D) Filter
65. Papers used to separate human blood serum by electrophoresis :
- (i) Whatman No 20 (ii) Schull
(iii) Blotting paper (iv) Schleicher
(A) (i), (ii) and (iii) (B) (ii), (iii) and (iv)
(C) (i), (iii) and (iv) (D) (i), (ii) and (iv)
66. Wavelength used in UV spectrophotometer to estimate purines and pyrimidines :
- (A) 800 m μ (B) 600 m μ
(C) 400 m μ (D) 200 m μ
67. Radiations emitted by radio active Ca^{45} :
- (A) β - rays (B) γ - rays
(C) α - rays (D) $\alpha - \beta$ rays
68. Strong cation exchanger in Ion exchange chromatography :
- (A) Tertiary amine (B) Carboxylic group
(C) Quaternary ammonia group (D) Sulphonic acid group
69. In proper chromatography sugars like glucose fructose and lactose can be separated by spraying :
- (A) Pyridine (B) Butanol
(C) Phenyl Hydragone (D) Aniline Oxalate

70. Physico chemical processes of chromatography :
- | | |
|-------------------------|--------------------------|
| (i) Attraction | (ii) Adsorption |
| (iii) Partition | (iv) Ion Exchange |
| (A) (i), (ii) and (iii) | (B) (i), (ii) and (iv) |
| (C) (i), (iii) and (iv) | (D) (ii), (iii) and (iv) |
71. Choose the non- essential requirement for an effective teacher :
- (A) Experience in teaching
(B) Self-reflection on techniques of teaching
(C) Planning and Preparation
(D) Knowledge of basic principles of teaching
72. Which among the following help a teacher to identify higher order learning?
- (A) Students name the term and concepts you taught them
(B) Student describe the concept using words not used by the teacher
(C) Students express willingness to know more about the topic
(D) Students propose a plan not described by the teacher
73. Summative assessment is assessment :
- | | |
|-----------------|------------------|
| (A) As learning | (B) Of learning |
| (C) In learning | (D) For learning |
74. What type of learning of their discipline good teachers have to rate highest among their students?
- (A) Rules of a discipline
(B) Flexible understanding of the discipline
(C) Knowing the basics of the discipline
(D) Procedures of the discipline
75. A good PowerPoint slide presentation has :
- | | |
|---|-----------------------------------|
| (i) Graphics and images | (ii) Complete sentences |
| (iii) Seven to ten words only in a line | (iv) More than 3 colors per slide |
| (A) (i) and (ii) | (B) (i) and (iii) |
| (C) (ii) and (iv) | (D) (iii) and (iv) |
76. Constructs are traits that can only be :
- | | |
|----------|--------------|
| (A) Seen | (B) Heard |
| (C) Felt | (D) Inferred |

77. Which among the following statements are true about operational definitions?
(i) Must be unambiguous and precise
(ii) Can be based on a valid theory
(iii) Need to be taken from previous studies
(iv) Can be availed from dictionaries
(A) (i) and (ii) (B) (ii) and (iii)
(C) (iii) and (iv) (D) (i) and (iv)
78. Hypotheses can be stated :
(i) Interrogatively (ii) In Infinitive form
(iii) Affirmatively (iv) Negatively
(A) (i) and (ii) (B) (ii) and (iii)
(C) (iii) and (iv) (D) (i) and (iv)
79. Sampling error is :
(A) Measured as standard error (B) Measured as standard deviation
(C) Indicates mistake in sampling (D) Chance variation in sampling process
80. Applied research in education attempts :
(A) Generalizations about teaching-learning process
(B) Providing immediate solution to the problems of educational practitioner
(C) Development and testing of theories of behavior
(D) Fact finding that describes present condition of education
81. The term secularism has been inserted in the Preamble by the _____ Amendment Act of the Constitution.
(A) 40 (B) 41
(C) 42 (D) 43
82. Right for freedom of movement is provided in _____ Article of Constitution.
(A) 19(i)(a) (B) 19(1)(b)
(C) 19(1)(c) (D) 19(1)(d)
83. Supreme Court has original Jurisdiction in any dispute :
(A) Between Govt. of India and one or more states
(B) Between the Government of India and any state on one side and one or more other state on the other
(C) Matters referred to the finance commission
(D) All of the above

84. Legislative Assembly of each state shall consist of :
- Not more than 500 and not less than 60 members
 - Not more than 300 and not less than 40 members
 - Not more than 250 and not less than 50 members
 - Not more than 550 and not less than 50 members
85. Which of the following statement is true?
- An order of compulsory retirement is a punishment
 - An order of compulsory retirement is not a punishment
 - Principle of Natural Justice has no place in the context of an order of compulsory retirement
 - Principle of Natural Justice has to be observed in the case of compulsory retirement
- (A) 1 and 3 (B) 2 and 3
(C) 2 and 4 (D) 1 and 4
86. The time limit for getting the reply for an RTI application :
- (A) 90 days (B) 30 days
(C) 45 days (D) 60 days
87. Swarnjayanti Gram Swarojagar Yojana is a programme for :
- (A) Food Security (B) Self employment
(C) Community development programme (D) Cattle development programme
88. Children in need of care and protection will be send to :
- (A) Observation homes (B) Special home
(C) Children's home (D) Juvenile home
89. Employers who fail to comply with the provisions of The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 will be punishable with :
- (A) Fine which may extend to Rs. 50,000
(B) Fine which may extend to Rs. 50,000 and imprisonment of 3 months
(C) Fine which may extend to Rs. 25,000
(D) Fine which may extend to Rs. 25,000 and imprisonment of 3 months
90. National Environment Tribunal Act provides for :
- Strict liability for damages arising out of any accident occurring while handling any hazardous substance
 - Liability to pay compensation on principle of No-Fault
 - Tribunal to make interim order at its own discretion
 - Tribunal shall not be bound by the procedure laid down by the Code of Civil Procedure
- (A) 1 and 2 (B) 1 and 3
(C) 1,2,3 (D) 1,2,3,4

91. Author of Moksha pradeepam :
- (A) Vagbhadananda (B) Brahmananda Sivayogi
(C) Thycaud Ayya Vaikundar (D) Sree Narayana Guru
92. Name the freedom fighter who was elected unopposed to the Travancore legislative Assembly from Kanhirappalli in 1947 :
- (A) Accamma Cheriyan (B) Anna Chandi
(C) A.V. Kuttimalu Amma (D) Lalithambika Antharjanam
93. Chattambi Swamikal was born in the year :
- (A) 1843 (B) 1846
(C) 1850 (D) 1853
94. The revolt which reached its peak in 1858 was:
- (A) Channan Revolt (B) Kurichiar Revolt
(C) Malabar Revolt (D) Vayalar Revolt
95. V.T. Battathiripadu College is situated in the district of :
- (A) Kannur (B) Palakkad
(C) Ernakulam (D) Thiruvananthapuram
96. Vivekodayam magazine was published by :
- (A) Vallathol (B) Ulloor
(C) Kumaranasan (D) G.Sankarakurup
97. The pen name of Manikkoth Rammunni Nair :
- (A) Olappamanna (B) Kanam
(C) Kesari (D) Sanjayan
98. Doldrums are:
- (A) Equatorial low pressure belt (B) Sub-Tropic high pressure belt
(C) Sub-polar low pressure belt (D) Polar high pressure belt
99. The Union Minister for commerce and industry :
- (A) Ajith Singh (B) Anand Sarma
(C) Salman Khurshid (D) Tariq Anwar
100. English education act was passed in the year:
- (A) 1820 (B) 1830
(C) 1835 (D) 1836