

Atmospheric Science 29th March 2025 Shift3

Time Allowed :1.5 Hours

Maximum Marks :300

Total questions : 75

General Instructions

General Instructions:

1. Question Paper contains 75 Questions .
2. Each correct answer will have +4 marks and wrong answer will lead to -1

1. What implies to harmony and integration within the individual, between each individual and other members of society and between individuals and the world in which they live?

- (A) Physical Dimension of Health
 - (B) Mental Dimension of Health
 - (C) Social Dimension of Health
 - (D) Emotional Dimension of Health
-

2. Lifestyle factors that promote good health does not include which of the following?

- (A) Adequate Nutrition
 - (B) Enough Sleep
 - (C) Sufficient Physical Activity
 - (D) Genetic Composition
-

3. What defines the "Reliability" of health indicators?

- (A) They should actually measure what they are supposed to measure.
 - (B) The answers should be the same if measured by different people in similar circumstances.
 - (C) They should be sensitive to changes in the situation concerned.
 - (D) They should have the ability to obtain the data needed.
-

4. Which of the following terms has been defined by WHO as "the control of all those factors in man's physical environment which exercise or may exercise a deleterious effect on his physical development, health and survival"?

- (A) Environmental Sanitation
 - (B) Environmental Health
 - (C) Environmental Standard
 - (D) Environmental Control
-

5. Which of the statement is FALSE in relation to "Ground Water"?

- (A) It is likely to be free from pathogenic agents.

- (B) It is more subjected to contamination than surface water.
 - (C) It is superior to surface water, because the ground itself provides an effective filtering medium.
 - (D) The supply of Ground Water is likely to be certain even during dry season.
-

6. What is the full form of NOAEL which is defined as the highest dose or concentration of a chemical in a single study, found by experiment or observation, that causes no detectable adverse health effects?

- (A) No-observed-adverse-effect level.
 - (B) No-observed-adverse-essential level.
 - (C) Nil-observed-adverse-effect level.
 - (D) No-observed-adequate-effect level.
-

7. What does the unit "Becquerel (Bq)" define?

- (A) The activity of a pathogenic material.
 - (B) The activity of a radio-active material.
 - (C) The activity of a chemical material.
 - (D) A hardness of material.
-

8. Medical sociology is a specialization within the field of sociology. It was first proposed by whom?

- (A) Robert K. Merton
 - (B) Malcom V
 - (C) Charles McIntire
 - (D) Bostonee T.D
-

9. The speciality of family practice is specially designed to deliver which type of care?

- (A) "Primary care"
- (B) "Secondary care"
- (C) "Tertiary care"

(D) "Quaternary care"

10. Which of the following statement is FALSE?

- (A) Contraceptive methods which may be quite suitable for one group may be unsuitable for another, because of different cultural patterns.
 - (B) The social obstetric problems in India, differ from the social obstetric problems in the developed countries, because of cultural factors.
 - (C) Studying the cultural patterns relating to child-bearing might be useful in promoting acceptance and utilization of obstetric and paediatric services by the community.
 - (D) The traditions affecting habits related to cleanliness, eating, clothing, and child care are unaffected by cultural factors.
-

11. "Security that society furnishes through appropriate organization, against certain risks to which its members are exposed" is termed as which of the following?

- (A) Society security
 - (B) Health security
 - (C) Social security
 - (D) Community security
-

12. Waste in health care processes can be classified into how many types?

- (A) Five
 - (B) Six
 - (C) Seven
 - (D) Four
-

13. The process that involves mixing waste with cement and other substances before disposal, in order to minimize the risk of toxic substances contained in the wastes migrating into the surface water or ground water is termed as?

- (A) Inertization
- (B) Incineration

- (C) Land disposal
 - (D) Microwave irradiation
-

14. Who is the father of epidemiology?

- (A) John Snow
 - (B) Paracelsus
 - (C) Andreas Vesalius
 - (D) Ambroise Pare
-

15. Active immunity is not acquired by which of the following?

- (A) After clinical infection.
 - (B) After administration of an antibody-containing preparation.
 - (C) After subclinical or inapparent infection.
 - (D) After immunization with an antigen which may be a live attenuated vaccine or toxoid.
-

16. The introduction of a gene sequence into a cell with the aim of modifying the cell's behaviour in a clinically relevant fashion is termed as?

- (A) Gene therapy
 - (B) DNA technology
 - (C) Cell technology
 - (D) DNA therapy
-

17. Which condition is known to be highly endemic in Sub-Himalayan regions?

- (A) Xerophthalmia
 - (B) Protein-Energy Malnutrition
 - (C) Goitre
 - (D) Anemia
-

18. Who discovered vaccination against smallpox in 1796?

- (A) Louis Pasteur

- (B) Walter Reed
 - (C) James Lind
 - (D) Edward Jenner
-

19. What is defined as, "The process of continuous progressive improvement of the health status of a population"?

- (A) Continuous development
 - (B) Health development
 - (C) Progressive development
 - (D) Population development
-

20. In which year the urban leprosy control programme was initiated to address the complex problem of larger population size, migration, poor health infrastructure and increasing leprosy cases in urban areas?

- (A) 2005
 - (B) 2006
 - (C) 2007
 - (D) 2008
-

21. Which of the following statements is false in terms of the peculiarities of a hospital system?

- (A) A hospital is a closed system which interacts within its environment.
 - (B) The boundaries separating the hospital system from other social systems are not clear.
 - (C) A hospital system has to be in a dynamic equilibrium with the wider social system.
 - (D) A hospital system is not an end in itself. It must function, as a part of the larger health care system.
-

22. What type of communication covers horizontal flow of information with people on same organisational level, and also diagonal flow with persons at different levels who have no direct reporting relationships?

- (A) Downward Communication
 - (B) Upward Communication
 - (C) Crosswise Communication
 - (D) Sideways Communication
-

23. What is defined as "performing a dangerous or wanton act that may cause injury but without the intention to cause injury"?

- (A) Criminal rashness
 - (B) Criminal negligence
 - (C) Civil negligence
 - (D) Contributory negligence
-

24. How many essential elements of PHC (Primary Health Care) has been described by the WHO?

- (A) Six
 - (B) Seven
 - (C) Eight
 - (D) Nine
-

25. The charitable or not-for-profit hospitals are exempted from which Act?

- (A) Industrial Disputes Act, 1948
 - (B) Payment of Bonus Act, 1956
 - (C) Minimum Wages Act, 1948
 - (D) Payment of Wages Act, 1936
-

26. Which of the following is the entry point into the health system in India?

- (A) Primary care
- (B) Secondary care
- (C) Tertiary care
- (D) Quaternary care

27. The clinics which are located away from the main hospital OPD, to serve defined concentration of populations, but having links with the main hospital are termed as:

- (A) Filter Clinics
- (B) Selective Clinics
- (C) Resource Clinics
- (D) Satellite Clinics

28. The space required for uncluttered movement of personnel and materials within the department between various technical work stations, rooms, stores and other auxiliary and administrative areas is termed as ----- space.

- (A) Circulation
- (B) Primary
- (C) Secondary
- (D) Laboratory

29. The term COPD is defined by which of the following options?

- (A) Chronic Obstructive Pulmonary Disease.
- (B) Coutaneous Obstructive Pulmonary Disease.
- (C) Chronic Occlusive Pulmonary Disease.
- (D) Chronic Obstructive Pediatric Disease.

30. Which department is responsible for processing, sterilizing and dispensing of almost all items of sterile equipment, sets and dressings in the hospital?

- (A) Central sterile source department (CSSD)
 - (B) Central sterile supply department (CSSD)
 - (C) Central sterilizing supply department (CSSD)
 - (D) Common sterile supply department (CSSD)
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31. Select the Act that deals with the establishment of pharmacies and drug stores and with the profession of pharmacist.

- (A) The Pharmacy Act, 1948
 - (B) The Pharmacist Act, 1958
 - (C) The Pharmacy Act, 1940
 - (D) The Pharmacist Act, 1948
-

32. Which term defines the services that include the laundering of linen, storage of clean linen and repair and replacement of all linen in a hospital?

- (A) Linen and Laundry Service
 - (B) Cleaning Service
 - (C) Linen remodelling Service
 - (D) Washing Service
-

33. The National Building Code of the ISI suggests how many litres of water per consumer day (LPCD) for hospitals up to 100 beds.

- (A) 355
 - (B) 375
 - (C) 400
 - (D) 455
-

34. A systematic or step by step approach intended to achieve the desired functions of a product, process, system or service at an overall minimum cost without in any way affecting quality, reliability, performance, delivery or safety of environment is termed as ----- engineering.

- (A) Value
 - (B) Critical
 - (C) Service
 - (D) Systematic
-

35. Which of the following measures the hardness of water for different salts?

- (A) parts per million
 - (B) parts per trillion
 - (C) parts per thousand
 - (D) parts per hundred
-

36. Which inventory management means that inventory supplies are delivered as soon as needed by the health care organization, the prescribing doctor, or the patient?

- (A) JIT inventory management
 - (B) MIT inventory management
 - (C) CIT inventory management
 - (D) AIT inventory management
-

37. Michael Porter competitive strategies take into account how many forces for understanding the underlying fundamentals of competition?

- (A) Two
 - (B) Three
 - (C) Four
 - (D) Five
-

38. CT is a specialised X-ray examination. CT stands for?

- (A) Computed Tonography
 - (B) Computer Tomography
 - (C) Computed Totalgraphy
 - (D) Computer Totalgrdphy
-

39. Which of the following is not the technique of management and control of inventories?

- (A) ABC analysis
- (B) VED analysis

- (C) Economic order quantity
 - (D) BCG analysis
-

40. The infection that develops in admitted patients after more than 48 hours of hospitalization is termed as _____ infection.

- (A) Cytotoxic
 - (B) Comprehensive
 - (C) Nosocomial
 - (D) Community
-

41. Which Act provides a simple, speedy and inexpensive redressal for consumer grievances relating to defective goods, deficient services and unfair trade practices?

- (A) Customer Protection Act
 - (B) Consumer Protection Act
 - (C) Consumer Grievances Act
 - (D) Service Protection Act
-

42. Which committee will have the responsibility for monitoring the occurrence of hospital infection and recommend corrective action?

- (A) Hospital Control Committee
 - (B) Infection Monitoring Committee
 - (C) Hospital Monitoring Committee
 - (D) Infection Control Committee
-

43. Which Act implemented in 1996 includes provisions related to insurance, privacy, security, transactional, and code sets?

- (A) HIPAA
- (B) NIPAA
- (C) LIPAA
- (D) RIPAA

44. The matrix designed to apply the traditional public health domains of host, agent, and disease to primary, secondary, and tertiary injury factors is termed as _____ matrix.

- (A) Headon
 - (B) Seddon
 - (C) Haddon
 - (D) Headdon
-

45. Which tag indicates a seriously injured patient who requires some medical stabilization in the field prior to transportation, but whose life is not immediately threatened?

- (A) Red tag
 - (B) Yellow tag
 - (C) Green tag
 - (D) Orange tag
-

46. Arrange the definition of epidemiology given by different authors in a chronological order starting from oldest to the latest definition.

- A. That branch of medical science which treats epidemics (Parkin).**
- B. The study of disease, any disease, as a mass phenomenon (Greenwood).**
- C. The science of the mass phenomenon of infectious diseases (Frost).**
- D. The study of the distribution and determinants of disease frequency in man (MacMahon).**

- (A) A, B, C, D
 - (B) A, C, B, D
 - (C) B, A, D, C
 - (D) C, B, D, A
-

47. Control programmes are designed to meet the unique needs of each country's health care system, its resources and priorities. Arrange the steps involved from start to

end sequentially:

A. Establishing Priorities

B. Problem Definition

C. Considering Strategies

D. Setting Objectives

Choose the correct answer from the options given below: (A) A, B, C, D

(B) B, A, D, C

(C) B, D, A, C

(D) C, B, D, A

48. Nalgonda technique for defluoridation of water involves the following steps.

Arrange them sequentially from first to last step.

A. Addition of two chemicals (lime and alum)

B. Sedimentation

C. Flocculation

D. Filtration

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

49. Arrange the following steps in a sequential manner from beginning to end for the biomedical waste management processes.

A. Segregation

B. Packaging

C. Transportation

D. Storage

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

50. Arrange the four stages in the life cycle of mosquito from the first stage to the last stage.

A. Adult

B. Larva

C. Egg

D. Pupa

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

51. Arrange the levels of prevention in relation to the natural history of disease.

A. Primordial prevention

B. Secondary prevention

C. Primary prevention

D. Tertiary prevention

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

52. The Government of India has introduced a series of programmes to address maternal and newborn health. Arrange the major milestones in chronological order from oldest to new.

A. Child Survival and Safe Motherhood Programme

B. National Health Mission

C. National Rural Health Mission

D. India Newborn Action Plan

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

53. Arrange in chronological order from oldest to new, the notable hospitals established in the western world in the ancient times.

A. Bartholomew's Hospital

B. Bellevue Hospital

C. Pennsylvania Hospital

D. Massachusetts Hospital

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, D, B

(C) B, A, D, C

(D) C, B, D, A

54. Arrange the steps in sequential manner as followed for Programme Evaluation and Review Technique (PERT).

A. Planning

B. Organising

C. Scheduling

D. Coordinating and Controlling

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

55. Arrange the activities at CSSD in a sequential manner for effective maintenance of sterilization.

A. Washing, cleaning and drying

B. Receipt of used supplies

C. Packing

D. Sorting

Choose the correct answer from the options given below: (A) A, B, C, D

(B) B, D, A, C

(C) B, A, D, C

(D) C, B, D, A

56. Select the characteristic features of marketing from the following.

A. Marketing is a management process.

B. Marketing offers and exchanges ideas, goods or services.

C. Marketing involves raising the pricing irrespective of the customer's demand.

D. Marketing is not anticipating customer's requirements.

Choose the correct answer from the options given below: (A) A and D only

(B) A and B only

(C) A, B and C

(D) B, C and D only

57. The basic ethical principles in critical care medicine include:

A. Beneficence

B. Patient autonomy

C. Justice

D. Maleficence

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and C only

(C) A, B and C

(D) B, C and D only

58. The colour coding of waste categories for disposal of biomedical waste include:

A. Green

B. Yellow

C. Blue

D. Black

Choose the correct answer from the options given below: (A) A, B and D only

(B) B and C only

(C) A, B, and C

(D) A, B, C and D

59. The Operation theatre is planned on the concept of zones, predicted on the types of activities, patterns of circulation and degree of sterility to be maintained. They are:

A. Disposal zone

B. Protective zone

C. Autonomous zone

D. Sterile zone

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and B only

(C) A, B and C

(D) B, C and D only

60. High efficiency particulate air (HEPA) filters have the following characteristic features:

A. They are dry type filter.

B. Non-reusable filter.

C. Remove 99.9 per cent of airborne particles.

D. Remove dust, pollen, mold and bacteria.

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and B only

(C) A, B, C and D

(D) B, C and D only

61. The Administrative Departments in the Hospital include:

- A. Accounts department**
- B. Linen and laundry department**
- C. General OPD**
- D. Housekeeping**

Choose the correct answer from the options given below: (A) A, B and D only

- (B) A and B only
 - (C) A, B and C
 - (D) B, C and D only
-

62. A management decision model comprises of the following elements:

- A. A clear idea of what is to be achieved**
- B. An appreciation of insource constraints**
- C. An identification of risk factors**
- D. A comparison of payoff value with input costs**

Choose the correct answer from the options given below: (A) A, B and D only

- (B) A and C only
 - (C) A, C and D only
 - (D) B, C and D only
-

63. Some of the syndromes associated with abnormalities of sex chromosomes are:

- A. Cerebral palsy**
- B. Klinefelter's syndrome**
- C. Turner's syndrome**
- D. Super females**

Choose the correct answer from the options given below: (A) A, B and D only

- (B) B and C only
 - (C) A, B and C
 - (D) B, C and D only
-

64. Health care has many characteristics; they include:

A. Appropriateness

B. Adequacy

C. Apprehension

D. Affordability

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and B only

(C) A, B and C

(D) B, C and D only

65. Socio-economic determinants of Health include:

A. Economic status

B. Education

C. Political system

D. Gender

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and B only

(C) A, B and C

(D) A, B, C and D

66. Match the LIST-I with LIST-II

LIST-I (Categories of Zoonoses)

A. Direct zoonoses

B. Meta-zoonoses

C. Cyclo-zoonoses

D. Sapro-zoonoses

LIST-II (Type of life cycle of the infecting organism)

I. Transmitted from an infected vertebrate host to a susceptible vertebrate host.

II. Requires more than one vertebrate host species, but no invertebrate host, in order to complete the developmental cycle of the agent.

III. Transmitted biologically by invertebrate vectors.

IV. Have both a vertebrate host and a non-animal developmental site or reservoir.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - IV, C - I, D - II

67. Match the LIST-I with LIST-II

LIST-I (Classification of Anthropology)

A. Physical Anthropology

B. Social Anthropology

C. Cultural Anthropology

D. Medical Anthropology

LIST-II (Characteristics of types of Anthropology)

I. The study of the total way of life of contemporary primitive man, his ways of thinking, feeling and action

II. Deals with the cultural component in the ecology of health and disease.

III. The study of human evolution, racial differences, inheritance of bodily traits, growth and decay of the human organism

IV. The study of the development and various types of social life

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - III, B - IV, C - I, D - II

(D) A - III, B - IV, C - I, D - II

68. Match the LIST-I with LIST-II

LIST-I (Term)

A. Sterilization

B. Antiseptic

C. Germicide

D. Disinfectant

LIST-II (Definition)

I. Validated process used to render a product free of all forms of viable microorganisms including bacterial spores.

II. Substance that prevents or arrests the growth or action of microorganisms by inhibiting their activity or by destroying them.

III. Usually a chemical agent that destroys disease causing pathogens or other harmful microorganisms, but might not kill bacterial spores.

IV. Agent that destroys microorganisms, especially pathogenic organisms.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - IV, C - I, D - II

69. Match the LIST-I with LIST-II

LIST-I (ACT applicable to Hospitals)

A. Indian Medical Council Act

B. Indian Nursing Council Act

C. Minimum Wages Act

D. Mental Healthcare Act

LIST-II (Year of Implementation)

I. 1956

II. 1947

III. 1948

IV. 2017

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - IV, C - I, D - II

70. Match the LIST-I with LIST-II

LIST-I (Committee)

- A. Mudaliar committee**
- B. Kartar Singh committee**
- C. Shrivastav committee**
- D. Jungalwalla committee**

LIST-II (Year)

- I. 1962**
- II. 1975**
- III. 1973**
- IV. 1967**

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV
(B) A - I, B - III, C - II, D - IV
(C) A - I, B - II, C - IV, D - III
(D) A - III, B - IV, C - I, D - II

71. Match the LIST-I with LIST-II

LIST-I (Institution)

- A. Panchayat**
- B. Panchayat Samiti**
- C. Zilla Parishad**
- D. Directorate General of Health Services**

LIST-II (Functional Level)

- I. Function at the district level.**
- II. Adviser to the Union Government.**
- III. Function at the village level.**
- IV. Function at the block level.**

Choose the correct answer from the options given below: (A) A - III, B - II, C - I, D - IV
(B) A - III, B - IV, C - I, D - II
(C) A - I, B - II, C - IV, D - III
(D) A - III, B - I, C - IV, D - II

72. Match the LIST-I with LIST-II

LIST-I (Type of Waste)

A. Type 0 Waste

B. Type 1 Waste

C. Type 2 Waste

D. Type 3 Waste

LIST-II (Classification)

I. Trash

II. Rubbish

III. Garbage

IV. Refuse

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - IV, C - II, D - III

(D) A - III, B - I, C - IV, D - II

73. Match the LIST-I with LIST-II

LIST-I (Principle of Management)

A. Unity of Command

B. Unity of Direction

C. Scalar Chain

D. Division of Work

LIST-II (Explanation)

I. Employees should receive orders from one superior only.

II. The line of authority from the highest to the lowest ranks in the organization.

III. Each group of activities with the same objective must have one head and one plan.

IV. The work assigned to each worker should be clearly defined and clarified.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - I, C - IV, D - II

74. Match the LIST-I with LIST-II

LIST-I (Types of Budget)

A. Revenue and Expense Budget

B. Programme Budgeting

C. Zero-based Budgeting

D. Variable or Flexible Budgeting

LIST-II (Explanation)

I. Budget that reflects the anticipated income from the sales of products and controlling services.

II. Budget to provide a systematic method for allocating the resources in ways most effective to meet the goals.

III. Budget that divide enterprise programmes into "packages" and then calculate costs for each package from the bottom up.

IV. Budget that adjusts targeted levels of costs for changes in volume.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - I, C - IV, D - II

75. Match the LIST-I with LIST-II

LIST-I (Phase of Disaster)

A. Predisaster Phase

B. Alert Phase

C. Impact Phase

D. Post Impact Phase

LIST-II (Feature)

I. Include risk assessment and training.

II. Period when a disaster is developing.

III. Re-establishing sanitary measures to prevent outbreak of epidemics.

IV. Relief efforts and immediate response.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - II, C - IV, D - III

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - I, C - IV, D - II
