Time: 2 hours

SOS Hermann Gmeiner School Sanothimi   **Full Marks: 60**

Entrance Exam 2082/Grade VII Model Question

Instructions:

- There are altogether 60 questions. For every correct answer from Question No. 1 to 51, candidates will be awarded with1 full mark except question number 52 to 59 which carry 0.5 marks each and question number 60 that carries 5 marks.

- There won't be any **negative marking in case of wrong answers**.

- Use of **pencil and calculator is prohibited.**

- Read the questions carefully and **Tick (√)** the correct answer under the options a, b, c and d

1. **The property of diffusion is**

    a. based on motion of particles   b. slowest in liquids

    c. fastest in gases   d. all of the above

2. **Name the technique which is used to separate two different dissolved liquids present in a solution in very small quantities**

    a. chromatography   b. distillation   c. filtration   d. crystallization

3. **At higher altitude**

    a. melting point of solid increases   b. boiling point of liquid increases

    c. no change in boiling point   d, boiling point of liquid decreases

4. **Which of the following is not a matter?**

    a. Sound   b electron   c. moon rock   d. blood

5. **The baking soda solution is**

    a. acidic   b, basic   c. neutral   d. amphoteric

6. **Which of the following is not an atmospheric pollutant?**

    a. Carbon dioxide   b Nitrogen dioxide   c. Helium   d Sulphur dioxide

7. **What is the function of the mucous glands in amphibian skin?**

    a. Regulate body temperature   b. Aid in breathing

    c. Produce toxins for defense   d. Keep the skin moist and protected

8. **What is the primary function of the diaphragm in mammals?**

   a. Pump blood

   b. Digest food

   c. Aid in breathing

   d. Regulate body temperature

9. **Which of the following factors contributes positively to environmental balance?**

   a. Deforestation and habitat destruction

   b. Pollution and waste accumulation

   c. Sustainable resource management and conservation efforts

   d. Overexploitation of natural resources for short-term gain

10. **Which of the following correctly describes the flow of energy in a grazing food chain?**

    a. Producers to decomposers to primary consumers to secondary consumers

    b. Producers to primary consumers to secondary consumers to decomposers

    c. Producers to primary consumers to secondary consumers to tertiary consumers

    d. Producers to decomposers to secondary consumers to primary consumers

11. **Which enzyme is responsible for breaking down proteins into peptides?**

    a. Amylase   b. Lipase   c. Protease   d. Nuclease

12. **Among the following options, which one does not belong to the group?**

    a. Salmon   b. Tuna   c. Trout   d. Ostrich

13. **Many lizards have the ability to change color to blend in with their surroundings, which is an example of:**

    a. Endothermy   b. Viviparity   c. Camouflage   d. Thermoregulation

14. **Which of the following is an example of a detritivore in a forest ecosystem?**

    a. Hawk   b. Earthworm   c. Deer   d. Oak tree

15. **Choose the correct sequence of organs involve in human digestive system.**

    a. Mouth- Esophagus- Pharynx- Stomach-Small Intestine-Large Intestine -Rectum

    b. Mouth- Pharynx- Stomach-Esophagus- -Small Intestine-Large Intestine -Rectum

    c. Mouth-Stomach-Esophagus- Mouth-Small Intestine-Large Intestine -Rectum

    d. Mouth- Pharynx -Esophagus-Stomach-Small Intestine-Large Intestine -Rectum

16. **What happens to the kinetic energy of a body when its velocity is doubled?**

    a. Kinetic energy becomes double of the initial kinetic energy.

    b. Kinetic energy becomes three times of the initial kinetic energy.

    c. Kinetic energy changes by four times of the initial kinetic energy.

    d. Kinetic energy changes by three times of the initial kinetic energy.

17. **Choose the incorrect statement:**

    a. The image formed by a pinhole camera is inverted.

    b. A pinhole camera is a simple camera having a lens and with a single pinhole.

    c. A collection of rays of light is called a beam of light.

    d. Light travels in a straight line, this property of light is called rectilinear propagation of light.

18. **Order of substances in terms of increasing order of velocity of sound through the substance is:**

    a. Steel, Ocean water, Fresh water, Air   b. Fresh water, Ocean water, Air, Steel

    c. Steel, Fresh water, Ocean water, Air   d. Air, Fresh water, Ocean water, Steel

19. **The largest natural satellite is**

    a. Moon   b. Ganymede   c. Demos   d. Phobos

20. **Which metal is used to make fuse wire?**

    a. Zinc   b. Lead   c. Tin   d. Tin and Lead

21. **Which of the following fractions does not equal to 0.8 ?**

    a. $\dfrac{40}{50}$ b. $\dfrac{12}{15}$ c. $\dfrac{16}{20}$ d. $\dfrac{15}{75}$

22. $\dfrac{34}{100}$ **lies between**

    a. 0.3 and 0.33   b. 0.35 and 0.39   c. 0.3 and 0.35   d. 0.35 and 0.36

23. **What is the nth term of the sequence 4, 6, 8, 10,……….. ?**

    a. 5n   b. 2n+2   c. 2n+3   d. 5n+3

24. **What is sum of the prime numbers less than 10?**

    a. 26   b. 18   c.17   d. 15

25. **The total surface area of a cube with volume 1000 m³ is**

    a. 60 m²   b. 100 m²   c. 40 m²   d.600 m²

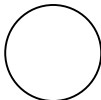26. **What is the sum of exterior angles of a polygon?**

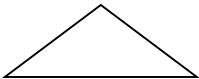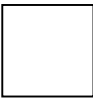   a. 60°   b. 120°   c. 180°   d. 360°

27. **If x + 11 = 9 and xy =20, what is the value of $(x - y)^2$?**

    a. −144   b. 144   c.64   d. −64

28. **The ratio of 80 m to 4 km is**

    a. 50:1   b. 1: 50   c. 1:5   d. 5:1

29. **What is the cube root of 512?**

    a. 6   b. 8   c. 10   d. 12

30. **The product of 0.002 and 0.5 is**

    a. 0.01   b. 0.001   c. 0.0001   d. 0.1

31. **The ratio of two complementary angles is 1:2 . The angles are**

    a. 30° and 60°   b. 45° and 90°   c. 60° and 120°   d. 50° and 100°

32. **If the average of 10, 30, 20, x and 40 is 30, find the value of x.**

    a. 20   b. 30   c. 40   d. 50

33. **What is the sum of all possible factors of 20 ?**

    a. 42   b. 22   c. 28   d. 16

34. **The product of $(x +3y)(x^2 - 3xy +9y^2)$ is**

    a. $x^3 + 3y^3$ b. $x^3 - 3y^3$ c. $x^3 - 27y^3$ d. $x^3 + 27y^3$

35. **The simple interest on Rs.1000 for 2 years at the rate of 12% is**

    a. Rs.2400   b. Rs.240   c. Rs.120   d. Rs. 60

36. **What is the value of (2.5+1.5) (6.25-3.75+2.25) ?**

    a. 19   b. 15   c. 7   d. 16

37. **In which of the following figures can be drawn the minimum number of symmetric lines ?**

    a.   b.   c.   d.

38. **The H.C.F. of 60, 90 and 180 is**

    a. 18   b. 60   c. 24   d. 30

39. **Which of the following is a prime number?**

    a. 35   b. 19   c. 87   d. 32

40. **If the cost price of a pen is Rs. 100 and its selling price is Rs. 120 then the profit percent is**

    a. 10%   b. 20%   c. 30%   d. 40%

Read the following passage and answer question No. 41 to 45.

Philosophy of Education is a label applied to the study of the purpose, process, nature and ideals of education. It can be considered a branch of both philosophy and education. Education can be defined as the teaching and learning of specific skills, and the imparting of knowledge, judgement and wisdom, and is something broader that the societal institution of education we often speak of.

Many educationalists consider it a week and wooly field, too far removed from the practical applications of the real world to be useful. But philosophers dating back to Plato and the Ancient Greeks have given the area much thought and emphasis, and there is little doubt that their work has helped shape the practice of education over the millennia.

Plato is the earliest important educational thinker, and education is an essential element in "The republic "(his most important work on philosophy and political theory, written around 360 B.C). In it, he advocates some rather extreme methods: removing children from their mothers' care and raising them as wards of the state, and differentiating children suitable to the various castes, the highest receiving the most education, so that they could act as guardians of the city and care for the less able. He believed that education should be holistic, including facts, skills, physical discipline, music and art. Plato believed that talent and intelligence is not disturbed genetically and thus is found in children born to all classes although his proposed system of selective public education for an educated minority of the population does not really follow a democratic model.

Aristotle considered human nature, habit and reason to be equally important forces to be cultivated in education, the ultimate aim of which should be to produce good and virtuous citizens. He proposed that teachers lead their students systematically, and that repetition be used as a key tool to develop good habits, unlike Socrates emphasis on questioning his listeners to bring out their own ideas. He emphasized the practical aspects of subjects taught, among which he explicitly mentions reading, writing, mathematics, music, physical education, literature, history, and a wide range of sciences, as well as play, which he also considered important.

During the Medieval period, the idea of Perennialism was first formulated by St. Thomas Aquinas in his art work "De Magistro". Perennialism holds that one should teach those things deemed to be of everlasting importance to all people everywhere, namely principles and reasoning, not just facts (which are apt to change over time), and that one should teach about people, not machines or techniques. It was originally religious in nature, and it was only much later that a theory of secular perennialism developed.

During the Renaissance, the French skeptic Michel de Montaigne (1533-1592) was one of the first to critically look at education. Unusually for his first time, Montaigne was willing to question the conventional wisdom of the period, calling into question the whole edifice of the educational system, and the implicit assumption that university-educated philosophers were necessarily wiser than uneducated farm workers.

41. **What is the difference between the approaches of Socrates and Aristotle?**

   a. Aristotle felt the need for rote-learning: Socrates emphasized on dialogic learning.

   b. Aristotle felt the need for repetition to develop good habits in students; Socrates felt the need to be constantly questioned.

   c. Aristotle emphasized on the importance of paying attention to human nature; Socrates emphasized upon science.

   d. There is no difference

42. **Why do educationists consider philosophy a 'weak and woolly' field?**

a. It is not practically applicable.

b. Its theoretical concepts are easily understood.

c. It is irrelevant for education.

d. None of the above

43. **The term 'Perennialism', in the context of the given comprehension passage refers to something _____.**

a. Which is quite unnecessary.

b. Which is of ceaseless importance.

c. Which is abstract and theoretical.

d. Which is existed in the past and no longer exists now.

44. **What were Plato's beliefs about education ?**

a. He believed that only the rich have the right.

b. He believed people are democratic.

c. He believed that only a select few are meant to attend schools.

d. He believed that all pupils are not talented.

45. **Why did Aquinas propose a model of education which did not lay much emphasis on facts?**

a. Facts are not important.

b. Facts do not lead to holistic education.

c. Facts change with the changing times.

d. Facts are frozen in time.

46. **The widower murmured in grief, "Shall I ever forget her?" The indirect speech of it is-----**

a. The widower wondered if he would ever forget her.

b. The widower said that he should never forget her.

c. The widower asked me whether he would ever forget her.

d. The widower said that he would always remember his wife.

47. **Have you reminded the maid that you want -------------early in the morning?**

a. to wake   b. to have been awakened

c. to have awakened   d. to be awaken

48. **I want to ----------these exercises before I give them to the teacher.**

a. look over   b. count on   c. keep on   d. point out

49. **What really surprised everybody was that he saved the company from bankruptcy quite---.**

a. competently   b. relatively   c. decidedly   d. scarcely

50. 'A man mustn't think that his task is too difficult before he begins doing.' It means---------.

a. Everything comes to him who waits.

b. Live not to eat but eat to live.

c. Keep your mouth shut and your eyes open.

d. Don't cross the bridge before you come to it.

51. If they -------what sort of a person he was, they--------------him their support.

a. would know/didn't give   b. knew/won't give

c. had known/wouldn't have given   d. would have known/hadn't given

(Question No. 52 to 59 carry 0.5 marks each)

52. ……….. one-legged race the competitors ran was worth watching, wasn't it?

a. A   b. An   c. The   d. X (Nothing)

53. I wonder why government officials always write -----------black ink.

a. on   b. at   c. by   d. in

54. The teacher had the students complete their assignment, ------------------?

a. hadn't they   b. hadn't he   c. didn't he   d. did he

55. Diabetes ------------------many people around the world.

a. have affected   b. has affected   d. is affected   d. are affected

56. He is very bright, and -------all the competitions.

a. goes into   b. gives out   c. gives in   d. goes in for

57. Which one of the following words is spelt correctly?

a. hierarchy   b. arguement   c. greatfully   d. amateure

58. If something "rings a bell" it ------------------.

a. makes a lot of noise   b. is frightening   c. sounds familiar   d. plays with a ring

59. --------------- tense is used to describe action that occurred after another past action.

a. Past Perfect   b. Past simple

c. Past Perfect Continuous   d. Past Continuous

60. In about 100 words, put your argument in favor or against the topic "**Wealth Brings Happiness in Life.**" **(5)**

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