



MACRO VISION ACADEMY, BURHANPUR

Sample Paper 2022-23

Office Use

Class: X

Time: 90 min

M.M.: 50

Student's Name:-_____ Father's Name:-_____

City:-_____ Mobile No:-_____ Exam Date:-_____

Studying in Class: _____ Appearing for class:-_____ Board: MP/CBSE/Other_____

GENERAL INSTRUCTIONS:

- The question paper has 50 questions in all. Each question carries 1 mark.
- All questions are compulsory.
- Section A contains 10 questions of Mathematics.
- Section B contains 5 questions of Physics.
- Section C contains 5 questions of Chemistry.
- Section D contains 5 questions of Biology.
- Section E contains 10 questions of Social Science.
- Section F contains 5 questions of MAT (Mental Ability Test).
- Section G contains 10 questions of English.

Mathematics (10)	Physics (05)	Chemistry (05)	Biology (05)	So. Science (10)	MAT (05)	English (10)	OBTAINED (50)

Section A

Mathematics

- Decimal representation of $\frac{-16}{45}$ is –
(a) $0.3\bar{5}$ (b) $-0.3\bar{5}$ (c) $-0.3\bar{5}$ (d) $0.4\bar{5}$
- If $2x + 5y = 17$ and $5x + 3y = 14$, then the value of $\frac{y}{x}$ is
(a) 2 (b) 6 (c) 5 (d) 3
- If $x + \sqrt{15} = 4$, then $x + \frac{1}{x} = ?$
(a) 2 (b) 8 (c) 4 (d) 1
- How many linear equations satisfies $x = 2, y = -3$?
(a) one (b) two (c) three (d) infinite
- The perpendicular distance of the point (3,4) from X-axis is –
(a) 3 unit (b) 4 unit (c) 5 unit (d) None of these

6. If X, Y and Z are angles on a line and $\frac{Y}{X} = 5$ and $\frac{Z}{X} = 4$ then angle X = ?
 (a) 12° (b) 15° (c) 8° (d) 18°
7. The sum of two sides of a triangle is always _____ than the third side.
 (a) less (b) equal (c) greater (d) None of these
8. If one angle of a parallelogram is 90° then it is –
 (a) Square (b) Rectangle (c) Rhombus (d) Trapezium
9. Length of the longest rod in a cube of side 8 cm would be –
 (a) 16 cm (b) $8\sqrt{3}$ cm (c) $\frac{8}{\sqrt{3}}$ cm (d) $8\sqrt{2}$ cm
10. The ratio of mean and median of a certain data is 2 : 3 then the ratio of mode and mean is –
 (a) 2 : 5 (b) 3 : 2 (c) 4 : 3 (d) 5 : 2

Section B

Physics

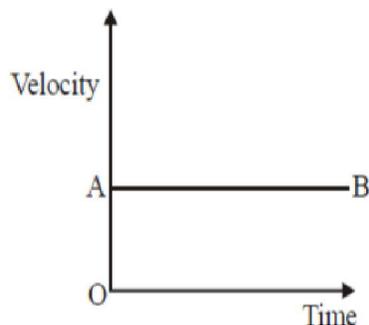
DIRECTIONS (Qs. 11 to 12): Read the passage given below and answer the questions that follow.

A substance which can flow is called a fluid. All liquids and gases are thus fluids. The tendency of a fluid to exert an upward force on a body immersed partly or wholly in it is called buoyancy. The resultant upward force experienced by a body when immersed in a fluid is called buoyant force or upward thrust. Archimedes's principle: When a body is immersed fully or partially in a fluid, it experiences an upward force that is equal to the weight of the fluid displaced by it.

Applications of Archimedes's principle: Archimedes's principle is applied for (1) Determination of density and relative density of substances (2) Design of ships and submarines

11. Buoyant force on an object due to a fluid always acts:
 (a) in the downward direction (b) side ways
 (c) in the upper direction (d) none of these
12. Archimedes's principle is not applied for
 (a) Design of ships (b) Determination of relative density of substances
 (c) Design of submarines (d) Determination of fluid pressure
13. Choose incorrect statement:
 (a) A body has a uniform motion if it travels equal distances in equal intervals of time.
 (b) A body has a non-uniform motion if it travels unequal distances in equal intervals of time.
 (c) Distance travelled by a moving body in (one second) unit time is called acceleration.
 (d) Average speed is given by the arithmetic mean of initial speed and final speed for a given period of time.
14. An object of 2 kg is moving with a velocity of 5 m/s. If its velocity is doubled, the kinetic energy will become
 (a) 100 J (b) 25 J (c) 200 J (d) 2.5 J

15. In the given velocity-time graph AB shows that the body has



- (a) Uniform acceleration
(b) Uniform velocity throughout the motion
(c) Uniform deceleration
(d) None of these

Section C

Chemistry

16. Elements having same atomic number but different atomic masses are called –
(a) Isotones (b) Isobars (c) Isotopes (d) Isomers
17. What is the electronic configuration of an element X having atomic number 12.
(a) 2,6,4 (b) 2,8,2 (c) 2,4,4,2 (d) 2,10
18. Which of the following is a compound?
(a) Carbon (b) Sodium (c) Soil (d) Calcium carbonate
19. Mixture of oil and water can be separated by –
(a) distillation (b) crystallization (c) sublimation (d) separating funnel
20. Who discovered the nucleus inside an atom?
(a) Neil Bohr (b) J. J. Thomson
(c) E. Rutherford (d) None of the above

Section D

Biology

21. The cell organelle in which hydrolytic enzymes are stored.
(a) Mitochondria (b) Lysosome
(c) Ribosome (d) Plastid
22. The cell will plasmolyse, if placed in
(a) Hypertonic solution (b) Hypotonic solution
(c) Isotonic solution (d) Concentration of water molecules doesn't matter.
23. Meristematic cells are characterized by
(a) Thin-walled and living cell (b) Cell wall formed of cellulose
(c) Capable of cell division (d) All of these
24. Select the group of viral diseases among the following
(a) Polio, Tetanus and Measles (b) Chicken pox, Polio and AIDS.
(c) AIDS, Malaria, Sickle cell anemia (d) Syphilis, AIDS, Hepatitis
25. CFC rays causes
(a) Green house effect (b) Ozone layer depletion
(c) Global warming (d) All of the above

Section E
Social Science

Read the following paragraph and answer the following questions. (Q.26 - Q.29)

Russia at the time of the revolution was under the autocratic rule of Tsar Nicholas II who believed in the Divine Right of Kings. Serfdom was abolished in 1861. Vast estates were under the control of Russian nobility and Church. There was lack of interrelation between state and society. The Tsar autocracy declined on 1917 due to social economic and political reason. The February revolution 1917 was set off by many incidents. It ends the monarchy system in Russia. The October revolution led by Lenin was supported by Bolsheviks. All Russian congress of soviets became the parliamentary of the country.

26. Which of the following was the ruler of Russia during Russian revolution?
(a) Louis XVI (b) Tsar Nicholas II
(c) Tsar Nicholas I (d) Louis XIV
27. When did serfdom was abolish?
(a) 1859 (b) 1860 (c) 1861 (d) 1863
28. What was lacking during revolution?
(a) Interrelation between king and peasants
(b) Relation between king and nobles.
(c) Relation between state and society
(d) Relation between Tsar and workers.
29. Which was the majority religion of Russia?
(a) Greek orthodox church (b) Protestantism
(c) Russian orthodox Christianity (d) Catholicism
30. From Gujarat to Arunachal Pradesh there is a time lag of:
(a) 24 hours (b) 12 hours
(c) 2 hours (d) 30 minutes
31. Which is the second highest peak in the world?
(a) Mt. Everest (b) Kanchenjunga
(c) Nanga Parbat (d) K2.
32. Zimbabwe attained independence from white minority in:
(a) 1970 (b) 1980 (c) 1990 (d) 2000.
33. Which of the following is true with reference to the resignation of Prime Minister?
A. If he/she resigns, the entire ministry quits.
B. The Prime Minister gives his resignation to the Speaker of the Lok Sabha.
- Options:**
(a) A is true but B is false (b) A is false but B is true
(c) Both A and B are true (d) Both A and B are false.
34. When was Constitution of India adopted?
(a) 26th Nov, 1949 (b) 26th Jan, 1949
(c) 26th Jan., 1950 (d) 26th Nov., 1950.

35. Which of the following statements is against the principle of democratic elections?
- (a) Parties and Candidates should be free to contest election
 - (b) Election must be held at regular intervals
 - (c) Election should be conducted in a free and fair manner
 - (d) The Right to Vote should be given to the selected people only.

Section F

MAT

36. If 'WATER' is written as 'YCVGT', then what is written as 'HKTG'?
- (a) IRFE (b) FIRE (c) REFI (d) ERIF
37. A class of boys stands in a single line, one boy is 19th in order from both the ends, How many boys are there in the class?
- (a) 37 (b) 39 (c) 27 (d) 38
38. On January 12, 1980, it was Saturday. The day of week on January 12, 1979 was –
- (a) Saturday (b) Friday (c) Sunday (d) Thursday
39. 'Doctor' is related to 'Patient', in the same way 'Lawyer' is related to
- (a) Customer (b) Criminal (c) Magistrate (d) Client
40. Find the correct mirror image of JUDGEMENT :
- (a) **TNEMEGDUJ** (b) **TNEMENTJUD**
 - (c) **TNEMENTJUD** (d) **JUDGEMENT**

Section G

English

Read the following passage and answer the questions by choosing the correct option.

(Q. 41 – Q. 45)

Reading

Did you know that some people don't do their reading assignments? It's shocking, but it's true. Some students don't even read short texts that they are assigned in class. There are many reasons for this. They may be distracted or bored. They may be unwilling to focus. They may be unconfident readers. Whatever the reason, it has to stop today. Here's why.

Reading stimulates your mind. It is like a workout for your brain. When people get old, their muscles begin to deteriorate. They get weaker and their strength leaves them. Exercise can prevent this loss. The same thing happens to people's brains when they get older. Brain power and speed decline with age. Reading strengthens your brain and prevents these declines.

You can benefit from reading in the near-term too. Reading provides knowledge. Knowledge is power. Therefore, reading can make you a more powerful person. You can learn to do new things by reading. Do you want to make video games? Do you want to design clothing? Reading can teach you all this and more. But you have to get good at reading, and the only way to get good at something is to practice.

Read everything that you can at school, regardless of whether you find it interesting. Reading expands your vocabulary. Even a "boring" text can teach you new words. Having a

larger vocabulary will help you better express yourself. You will be able to speak, write, and think more intelligently. What's boring about that?

Do not just discount a text because it is unfamiliar to you. Each time you read, you are exposed to new ideas and perspectives. Reading can change the way that you understand the world. It can give you a broader perspective on things. It can make you worldlier. You can learn how people live in far away places. You can learn about cultures different from your own.

Reading is good for your state of mind. It has a calming effect. It can lower your stress levels and help you relax. You can escape from your troubles for a moment when you read, and it's a positive escape. The benefits of reading far outweigh those of acting like a doofus. So do yourself a favor: the next time you get a reading assignment, take as much as you can from it. Squeeze it for every drop of knowledge that it contains. Then move on to the next one.

41. Which best expresses the main idea of the second paragraph?
(a) Reading is exciting. (b) Reading strengthens your mind.
(c) Age affects the body in many ways. (d) Working out keeps your body in shape.
42. Why does the author think that you should read books that are boring?
(a) You will eventually grow to love them if you read them enough.
(b) You will get better grades in reading class.
(c) You will make your teacher very happy.
(d) You will learn new words.
43. Which is not a reason given by the author why students fail to complete reading assignments?
(a) Students may be bored. (b) Students may be distracted.
(c) Students may be unwilling to focus. (d) Students may be tired.
44. Which best expresses the author's main purpose in writing this text?
(a) He is trying to persuade students to do their reading work.
(b) He is teaching people how to become better readers.
(c) He is explaining why people don't do their reading work.
(d) He is entertaining readers with facts about the mind and body.
45. Which best describes the author's tone in the first three sentences?
(a) Surprised (b) Sarcastic (c) Informative (d) Irate

Choose the right/most appropriate word from the options given below and complete the following passage. (Q. 46 – Q. 50)

Rivers are considered holy (i) _____ India but they are hardly treated (ii) _____ respect. All kinds of dust and filth find (iii) _____ way into the rivers. If we have to treat and purify the water (iv) _____ drinking it, how can (v) _____ fish survive in waters?

46. (i) (a) in (b) on (c) at (d) of
47. (ii) (a) in (b) with (c) of (d) off
48. (iii) (a) their (b) his (c) its (d) over
49. (iv) (a) of (b) in (c) on (d) for
50. (v) (a) these (b) this (c) that (d) their
