

KVS Memory Based Question PDF - For TGT Science (12 Feb 2023, Shift 2)

KVS General English Memory Based Questions

Q1. Select the option that is nearer to the meaning to the bolded word.

REPAST

- (a) Rest
- (b) Fond memories
- (c) Peacefulness
- (d) Meal

Ans. (d)

Q2. Broken track brings hundreds of trains to a halt.

- (a) Hundreds of trains were brought to a halt by broken track.
- (b) Hundreds of trains had been brought to a halt by broken track.
- (c) Hundreds of trains are brought to a halt by broken tracks.
- (d) Hundreds of trains have been brought to a halt by broken tracks.

Ans. (c)

Q3. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.

“India has decided to go ahead and impose the retaliatory tariffs on U.S. items,” the Commerce Ministry official said.

- (a) The Commerce Ministry official said that India has decided to go ahead and impose the retaliatory tariffs on U.S. items.
- (b) The Commerce Ministry official said that India have decided to go ahead and impose the retaliatory tariffs on U.S. items.
- (c) The Commerce Ministry official said that India decided to go ahead and impose the retaliatory tariffs on U.S. items.
- (d) The Commerce Ministry official said that India had decided to go ahead and impose the retaliatory tariffs on U.S. items.

Ans. (d)

Q4. Fill in the blank with the appropriate article _____ milk is good for health.

- (a) A
- (b) An
- (c) The
- (d) None

Ans. (d)

Q5. Choose the one that best expresses the meaning of the given idiom/phrase.

Gall and wormwood

- (a) Source of irritation
- (b) To be ready
- (c) To gamble everything you have
- (d) Very intimate friends

Ans. (a)

Q6. Fill in the blank with the correct tense
At the moment the child ____ (play) in the park

- (a) Has been playing
- (b) Playing
- (c) Played
- (d) Is playing

Ans. (d)

Directions (7-8) Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

Q7. Shayna was so tired (A)/ that she could not hardly (B)/ talk to the guests for a few minutes. (C)/ No

error (D)

- (a) A
- (b) B
- (c) C
- (d) D

Ans. (b)

- Q8.** If I was knowing (A)/ why he was absent, (B)/ I would inform you. (C)/ No error (D)
(a) A
(b) B
(c) C
(d) D

Ans. (a)

- Q9.** Identify the part of speech of the bold words.
Would you like chocolate **or** vanilla?
(a) Conjunction
(b) Noun
(c) Pronoun
(d) Preposition

Ans. (a)

- Q10.** Find the antonym
SCRUPULOUS
(a) Lax
(b) Shameful
(c) Awful
(d) Pitiful

Ans. (a)

KVS General Hindi Memory Based Questions

- Q1.** निम्न में से कौन से शब्द में उपसर्ग और प्रत्यय दोनों हैं?
(a) धनवान
(b) प्रहार
(c) अनपढ़
(d) श्रोता

Ans. (a)

- Q2.** किरण का पर्यायवाची शब्द कौन सा नहीं है?
(a) मयूख
(b) अंशु
(c) रश्मि
(d) धरा

Ans. (d)

- Q3.** दुर्भाग्य का विलोम शब्द क्या होता है?
(a) सौभाग्य
(b) दुर्दशा
(c) भाग्य
(d) इनमें से कोई नहीं

Ans. (a)

Direction (4-7): निम्नलिखित प्रश्नों में चार अनुच्छेदों (गद्यांशों) पर आधारित पाँच-पाँच प्रश्न दिए गए हैं। अनुच्छेदों को ध्यान से पढ़िए तथा प्रत्येक प्रश्न के उत्तर के लिए दिए गए चार विकल्पों में से उचित विकल्प का चयन कीजिए।

अहिंसात्मक अभ्यास का मार्ग ही अलग है। फौज में प्रतिदिन कवायद कसरत, क्रूरतापूर्ण शिकार इत्यादि कराए जाते हैं। अहिंसात्मक अभ्यास इससे बिल्कुल भिन्न है। उसका साधन यदि एक शब्द में कहना चाहें, तो बस संयम है। यहाँ संयम व्यापक अर्थ में उन तमाम नियमों के लिए व्यवहृत किया गया है, जिनका जिक्र हिन्दुओं के तथा दूसरे धर्मों के धर्म-ग्रन्थों में पाया जाता है। ये साधारण सदाचार के नियम खखती से पालन करके सीखे जाते हैं। इन सब नियमों का झुकाव अहिंसा और सत्य की ओर ही होता है। गंधीजी ने बार-बार लिखा है कि ईश्वर पर विश्वास इसका एक बहुत बड़ा सहायक होता है। यदि इस अहिंसात्मक प्रकृति को जाग्रत और पुष्ट करने में समय लगाया जाए, तो निर्भयता इत्यादि जो इसके मुख्य बह्य रूप देखने में आते हैं, अवश्य ही प्राप्त किए जा सकते हैं। यह कहना कि यह मुनष्य के लिए सम्भव नहीं-बेबुनियाद बात है।

- Q4.** सदाचरण की प्रमुख चर्चित दशाएँ हैं- -

- (a) माया-ममता
(b) श्रद्धा-भक्ति
(c) सत्य-अहिंसा
(d) पूजा-अर्चना

Ans. (c)

- Q5.** निर्भयता आदि गुणों को सीखने के लिए आवश्यक है-

- (a) बचपन में सैनिक शिक्षा का महत्त्व
(b) युवावस्था में सत्य का आचरण
(c) प्रत्येक अवस्था में निडर रहना
(d) बचपन से ही अहिंसात्मक प्रकृति का अभ्यास

Ans. (d)

- Q6.** उपर्युक्त गद्यांश का सर्वाधिक उपयुक्त शीर्षक है-

- (a) सदाचार का महत्त्व
(b) अहिंसा का मार्ग
(c) ईश्वर-भक्ति और सत्य
(d) बेबुनियाद बात

Ans. (b)

- Q7. उपर्युक्त गद्यांश में फौजी की गतिविधियों का उल्लेख इसलिए किया गया है, क्योंकि-
- (a) अहिंसात्मक अभ्यास का विवेचन किया जा सके
(b) अहिंसात्मक अभ्यास की उससे पृथक्ता प्रतिपादित की जा सके
(c) सैनिक शिक्षा की अनिवार्यता संकेतित की जाए
(d) फौज का महत्त्व निरूपित किया जाए
- Ans. (b)**

- Q8. 'हरिपद कोमल कमल से' इस पंक्ति में कौन सा अलंकार है?
- (a) यमक
(b) रूपक
(c) उपमा
(d) उत्प्रेक्षा
- Ans. (c)**

- Q9. 'पर्यावरण' शब्द का संधि विच्छेद कौन सा है?
- (a) पर्य + आवरण
(b) परि + आवरण
(c) परिध + आवरण
(d) पर्या + आवरण
- Ans. (b)**

- Q10. 'प्रत्युष्कार' का सही संधि-विच्छेद है-
- (a) प्रत् + उपकार
(b) प्रती + उपकार
(c) प्रति + उपकार
(d) प्रति + अपकार
- Ans. (c)**

KVS General Awareness & Current Affairs Memory Based Questions

- Q1. Who received Sahitya Academy Award 2022 for English literature?
- (a) Anuradha Roy
(b) Badri Narayan
(c) Praveen Bandekar
(d) Bhupinder Kaur Preet
- Ans. (a)**

- Q2. Math the following:
Dronacharya Award winner (2022)
- A. Jiwanjot Singh Teja
B. Mohammad Ali Qamar
C. Suma Siddharth Shirur
D. Sujeet Maan
- (a) A - 4, B - 2, C - 1, D - 3
(b) A - 4, B - 3, C - 3, D - 1
(c) A - 4, B - 1, C - 2, D - 3
(d) A - 4, B - 1, C - 3, D - 2
- Ans. (d)**

- Sport
1. Boxing
 2. Wrestling
 3. Para Shooting
 4. Archery

- Q3. Which among the following Magazine/Journal was not published by Mahatma Gandhi.
- (a) India Mirror
(b) Young India
(c) Swatantrata Kesari
(d) Navajivan
- Ans. (c)**

- Q4. The Persons with Disabilities Act - 1995 has come into enforcement on ____
- (a) 7 January 1995
(b) 7 January 1996
(c) 7 February 1995
(d) 7 February 1996
- Ans. (d)**

- Q5. Which state was formed in 1986?
- (a) Nagaland
(b) Mizoram
(c) Sikkim
(d) Assam
- Ans. (b)**

- Q6. Aravali Range, located in
- (a) Eastern India
(b) Southern India
(c) Northern India
(d) Western India
- Ans. (c)**

- Q7. Which of the following is a folded mountain?
- (a) The Himalayas
(b) Deccan Plateau
(c) The Alps
(d) Rift Valley
- Ans. (a)**

- Q8.** Who was the president of the Fourth Buddhist Council?
 (a) Ashoka
 (b) Sabhakami
 (c) Mogaliputta
 (d) Vasumitra
Ans. (d)

- Q9.** By which constitutional amendment the voting age was reduced from 21 years to 18 years?
 (a) 47th Constitutional Amendment 19769
 (b) 61st Constitutional Amendment 1988
 (c) 87th Constitutional Amendment 2009
 (d) None of the above
Ans. (b)

- Q10.** Fundamental Duties is borrowed from which of the following constitution?
 (a) South Africa
 (b) Germany
 (c) Australia
 (d) USSR
Ans. (d)

KVS Reasoning Ability Memory Based Questions

- Q1.** Convert 31 from Decimal to hexadecimal:
 (a) 1e
 (b) 1f
 (c) 00011111
 (d) 20
Ans. (b)

- Q2.** Eight persons are seating around a square table, they are facing center. A sits 6th to the left of B, who is sitting third to the right of F. E sits 2nd to the left of F. G sits in between A and B. C sits immediate left of F, who is immediate left of D.
 Who sits second to the left of D?
 (a) E
 (b) A
 (c) C
 (d) F
Ans. (c)

- Q3.** Directions: Two statements are given followed by two/four conclusions I, II, III and IV. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow from the given statements.

Statements:

- (I) All fans are cups.
 (II) All cups are pillows.

Conclusion:

- (I) All fans are pillows.
 (II) All pillows are fans.

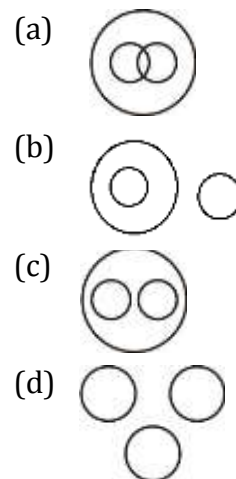
- (a) Conclusion I follows
 (b) Conclusion II follows
 (c) Neither I nor II follows
 (d) Both I and II follow

Ans. (a)

- Q4.** Pointing towards a boy, a girl says, "He is the only son of my mother's brother". How is the girl related to the boy ?
 (a) Grandmother
 (b) Mother
 (c) Cousin
 (d) Aunt

Ans. (c)

- Q5.** Which of the following correctly represents the relationship between.
 1. Chair
 2. Furniture
 3. Cup



Ans. (a)

**KVS Computer Literacy Memory
Based Questions**

- Q1.** Which of the following is an Input device
(a) Printer
(b) Speaker
(c) Mouse
(d) Monitor
Ans. (c)
- Q2.** Which one of the following is an operating system?
(a) Mozilla firefox
(b) Android
(c) MS word
(d) Chrome
Ans. (b)
- Q3.** Full form of DPI?
(a) Dots Per Inch
(b) Desktop pure interface
(c) Dot prescribed interface
(d) None of the above
Ans. (a)
- Q4.** Changing an existing document is called _____ the document.
(a) Creating
(b) Merging
(c) Editing
(d) Adjusting
Ans. (c)
- Q5.** What is the maximum limit of free cloud storage on Google drive?
(a) 2 GB
(b) 10 GB
(c) 15 GB
(d) 20 GB
Ans. (c)

**KVS Perspectives on Education and
Leadership Memory Based Questions**

- Q1.** National Education Policy (NEP) 2020 recommends the study of foreign languages as _____
1. An additional option at the secondary stage
2. An option under three language formula
3. A language during the primary stage
4. NEP does not recommend the study of foreign languages
(a) 1
(b) 2
(c) 3
(d) 4
Ans. (a)
- Q2.** Which of the following disability is directly associated with the difficulty in social interactions?
(a) Autism
(b) Dyslexia
(c) Locomotor Disability
(d) Visual impairment
Ans. (a)
- Q3.** Right to Education was added to Article 21 by:
(a) 85th Amendment Act
(b) 86th Amendment Act
(c) 87th Amendment Act
(d) 88th Amendment Act
Ans. (b)
- Q4.** What type of evaluation identifies learning deficiencies and difficulties of the learners?
(a) Placement
(b) Summative
(c) Continuous
(d) Diagnostic
Ans. (d)

Q5. Dysgraphia is related to-

- (a) Writing
- (b) Reading
- (c) Listening
- (d) Speaking

Ans. (d)

Q6. Which one of the following is not related to Continuous and Comprehensive Evaluation?

- (a) It has been mandated by the Right to Education Act of India.
- (b) It is an integral part of teaching- learning process.
- (c) It focuses on the child's achievement in different learning areas.
- (d) It is useful to label children as slow, poor or intelligent.

Ans. (d)

Q7. NCF-2005 has some guiding principles of the given statements, which one is not a part of it?

- (a) creating a mix of exam and classroom life
- (b) discouraging the conventional rote learning
- (c) advancement in the curriculum and making it beyond textbooks
- (d) a mix of knowledge with the life inside the school

Ans. (d)

Q8. As per NCF-2005, the teacher's classroom practices and materials used as well as evaluation technique used must be with each other.

- (a) internally consistent
- (b) externally consistent
- (c) externally promotional
- (d) internally promotional

Ans. (a)

Q9. As per RTE Act 2009, the preparation of the school development plan is the responsibility of-

- (a) School Head Teacher
- (b) School Management Committee
- (c) Block Education Officer
- (d) Cluster Resource Person

Ans. (b)

Q10. Students respect their teacher primarily owing to his/her-

- (a) legal authority
- (b) personal integrity and goodwill
- (c) popularity and influence
- (d) adult status

Ans. (b)

Q11. Which of the following information about the child need not be emphasized in guidance?

- (a) child's previous experiences and examination results
- (b) child's interests, aspirations, and other qualities
- (c) parent's religion, caste, and social status
- (d) parental aspirations

Ans. (c)

Q12. The role of the teacher in the Frontline curriculum happens to be of a/an _____

- (a) academic leader
- (b) pacesetter
- (c) neutral person
- (d) co-learner

Ans. (a)

Q13. How can a teacher promote creativity in her class?

- (a) Lecture method
- (b) Brainstorming
- (c) Audio-visual aids
- (d) All of these

Ans. (b)

Q14. Teachers need to study the errors made by students as it indicates -

- (a) Remedial strategies needed
- (b) Need for a different curriculum
- (c) Pathway for ability grouping
- (d) The extent of their knowledge

Ans. (a)

Q15. Successful inclusion of students with locomotor disabilities requires:

- (a) Accessible infrastructure
- (b) Segregation of students
- (c) Biased attitudes of teachers
- (d) Sympathy and pity among peers

Ans. (a)

- Q16.** An example of an effective problem solving strategy is-
- (a) Not paying any attention to evaluating the solution.
 - (b) Functional fixedness – focusing on only the conventional function of an object.
 - (c) Response set – getting stuck on one way of representing a problem.
 - (d) Means-end analysis – dividing the problem into number of sub-goals.

Ans. (d)

- Q17.** Which of the following is NOT an effective strategy for teaching-learning?
- (a) Encouraging children to make intuitive guesses
 - (b) Experimentation and exploration
 - (c) Dialogue and discussion
 - (d) Focusing on the reproduction of knowledge as given

Ans. (d)

- Q18.** In the context of assessment, National Education Policy 2020 proposes-
- (a) Testing of higher-order skills such as analysis and critical thinking.
 - (b) Recall-based objective types tests.
 - (c) Summative methods of assessment.
 - (d) Learning-for-exams.

Ans. (a)

- Q19.** Successful inclusion of students with learning difficulties in reading requires:
- (a) Compulsory learning of multiple language subjects
 - (b) Reasonable exemptions from language subjects
 - (c) Frequent use of punishment for students
 - (d) Permanent segregation of these students

Ans. (b)

- Q20.** Optimizing access to tools and assistive technologies will help in the inclusion of:
- (i) students with loss of vision
 - (ii) students with Attention Deficit Hyperactive Disorder
 - (iii) students with Cerebral Palsy
 - (iv) students with extraordinary talent
- Choose the correct option.

- (a) (i)
- (b) (ii), (iii)
- (c) (i), (ii), (iii)
- (d) (i), (ii), (iii), (iv)

Ans. (d)

KVS Science Memory Based
Questions - Main Subject

- Q1.** Which ore cannot be concentrated by froth floatation method?
- (a) calamine
 - (b) zinc blende
 - (c) copper pyrites
 - (d) cinnabar

Ans. (a)

- Q2.** Which of the following do not cause acid rain?
- (a) $\text{SO}_2(\text{g})$
 - (b) $\text{NO}_2(\text{g})$
 - (c) $\text{CH}_4(\text{g})$
 - (d) $\text{SO}_3(\text{g})$

Ans. (c)

- Q3.** Which one will only act as an oxidising agent?
- (a) HNO_2
 - (b) NO_2
 - (c) N_2O_5
 - (d) NH_3

Ans. (c)

- Q4.** What is a wrong statement about the troposphere?
 (a) it is a region in which human beings along with other organisms live
 (b) it is dusty one containing air, much water vapour and clouds
 (c) it is lowest region of atmosphere
 (d) it has a lot of ozone that cuts off ultraviolet light from the sun to a great extent
Ans. (d)
- Q5.** Amongst the following the essential amino acid is:
 (a) alanine
 (b) lysine
 (c) serine
 (d) tyrosine
Ans. (b)
- Q6.** Which of the 3 d series transition metal exhibits the largest number of oxidation states?
 (a) Sc
 (b) Cr
 (c) Fe
 (d) Mn
Ans. (d)
- Q7.** Which statement is not true about sucrose?
 (a) it is a reducing sugar
 (b) it is a disaccharide
 (c) it is a dextrorotatory sugar
 (d) the product of hydrolysis is also known as invert sugar
Ans. (a)
- Q8.** Carbon occurs in nature as a mixture of atoms of which 98.9% have a mass of 12.00 and the remaining have a mass of 13.00. The atomic weight of carbon is:
 (a) 11
 (b) 12.01
 (c) 13.05
 (d) 12
Ans. (b)
- Q9.** The pH at which a 1.0×10^{-3} M solution of an indicator with $K_b = 1.0 \times 10^{-10}$ changes colour is:
 (a) 3
 (b) 2
 (c) 4
 (d) 5
Ans. (c)
- Q10.** A solid has a structure in which W atoms are located at the cube corners of the unit cell, O atoms are located at the cube edge centres, and Na atoms at the cube centres. The formula for this compound is:
 (a) Na WO_3
 (b) Na
 (c) NaO_3
 (d) Na WO
Ans. (a)
- Q11.** Which of the following compounds is not chiral?
 (a) 1-Chloropentane
 (b) 1-Chloro-2-methylpentane
 (c) 2-Chloropentane
 (d) 3-Chloro-2-methylpentane
Ans. (a)
- Q12.** A mixture containing 100g H_2 and 100 g O_2 is ignited so that water is formed according to the reaction $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
 The amount of water formed is:
 (a) 100g
 (b) 113 g
 (c) 200 g
 (d) 900 g
Ans. (b)
- Q13.** The number of unshared pair of valence electrons in the Lewis electron dot structure of CO is:
 (a) 2
 (b) 4
 (c) 5
 (d) 3
Ans. (d)

Q14. In paper chromatography, the stationary phase is:
(a) Water
(b) Solid
(c) Organic
(d) Paper
Ans. (a)

Q15. Which oxide is most acidic?
(a) N₂O
(b) NO
(c) N₂O₃
(d) NO₂
Ans. (d)

Q16. The combination of solutes that would result in the formation of a buffer solution is:
(a) CH₃COONa + CH₃COOH
(b) HCl + NaCl
(c) HCl + CH₃COOH
(d) NaOH + HCl
Ans. (a)

Q17. A genetic cross between the F₁ hybrid and any of the parents is called _____
(a) Black cross
(b) White cross
(c) Back cross
(d) None of the above
Ans. (c)

Q18. Which protein is responsible for the packaging of DNA in a helix?
(a) H₁ histones
(b) F₂
(c) H₂ histones
(d) R₁ histones
Ans. (a)

Q19. In which stage of Meiosis I chiasmata form?
(a) Leptotene
(b) Zygotene
(c) Pachytene
(d) Diplotene
Ans. (d)

Q20. Rate of heartbeat is determined by _____?
(a) NA node
(b) SA node
(c) RT node
(d) none of the above
Ans. (b)

Q21. Which region of the nasal cavity contains oil glands?
(a) Sebaceous
(b) Respiratory region
(c) Vestibular Region
(d) None of the above
Ans. (c)

Q22. All eukaryotic unicellular organisms belong to which kingdom?
(a) Monera
(b) Fungi
(c) Bacteria
(d) Protista
Ans. (d)

Q23. Which among the following is not the correct statement of carbohydrates?
(a) carbohydrates are called the staff of life
(b) it is most abundant biomolecular on earth
(c) the general formula of carbohydrates is (C₂HO)_n
(d) carbohydrates are digested by salivary amylase in the buccal cavity
Ans. (c)

Q24. In which shape Actinomycetes are found?
(a) Filamentous
(b) Square
(c) Circular
(d) None of the above
Ans. (a)

Q25. Which among the following is the smallest bacterium?
(a) dialister pneumosinetes
(b) spirochaete
(c) Corynebacterium diphtheriae
(d) pseudomonas pocyanea
Ans. (a)

Q26. In which class of bryophytes, order Calobryales is present?

- (a) Hepaticae
- (b) Anthocerotopsida
- (c) Bryops
- (d) None of the above

Ans. (a)

Q27. Assertion: mosses are of great importance
Reason: Mosses prevent soil erosion by forming dense mats on the soil

- (a) Both A and R are true and R is the correct explanation of A
- (b) Both A and R are true but R is not the correct explanation of A
- (c) Neither A nor R is true
- (d) A is true but R is not true

Ans. (b)

Q28. Which of the following is found in freshwater?

- (a) Ulothrix
- (b) Spirogyra
- (c) Batrachospermum
- (d) All

Ans. (d)

Q29. Primary succession occurs in _____?

- (a) Newly formed river delta
- (b) black water
- (c) rocks
- (d) none of the above

Ans. (a)

Q30. Plakea stage is found in life cycle of?

- (a) Chlamydomonas
- (b) Volvox
- (c) Ulothrix
- (d) Spirogyra

Ans. (b)

Q31. An object is thrown upwards with a velocity of 4.9 m/s. After how much time will it hit the ground?

- (a) 2 seconds
- (b) 1 second
- (c) 1.5 second
- (d) 0.5 second

Ans. (b)

Q32. An object having mass 2 kg is moving on a frictionless table with a constant velocity of 4 m/s. The force required to keep the object moving with same velocity is-

- (a) 8 Newton
- (b) zero
- (c) 12 Newton
- (d) 2 Newton

Ans. (b)

Q33. Angular momentum of a moving object will always remain constant if -

- (a) resultant external force is applied
- (b) resultant pressure is applied
- (c) resultant external torque is applied
- (d) resultant external torque is not applied

Ans. (d)

Q34. The coefficient of thermal conductivity of a metal depends on -

- (a) on change of temperature between the two ends
- (b) on the thickness of plate
- (c) on the area of the plate
- (d) none of the above

Ans. (d)

Q35. A particle executes simple harmonic motion with a frequency f . The frequency with which its kinetic energy oscillates is

- (a) $f/2$
- (b) F
- (c) $2f$
- (d) $4f$

Ans. (c)

Q36. An electric motor creates a tension of 4500 N in hoisting cable and reels it at the rate of 2 m/s. What is the power of electric motor?

- (a) 9 W
- (b) 9 kW
- (c) 225 W
- (d) 9000 H.P.

Ans. (b)

Q37. What is the Electric Flux passing through the surface of circle of radius 2m due to an electric field of magnitude 4V/m inclined at an angle of 60° with the area vector?

- (a) 24 V-m
- (b) 8 V-m
- (c) 25.1 V-m
- (d) 15.5 V-m

Ans. (c)

Q38. A ray of light makes an angle of 10° with horizontal above it and strikes a plane mirror which is inclined at an angle to the horizontal. The angle for which the reflected ray becomes vertical is

- (a) 40°
- (b) 50°
- (c) 80°
- (d) 100°

Ans. (a)

Q39. A horse pulls the cart in the forward direction with a given force. According to the Newton's third law, the cart must be pulling on the horse backward with an equal and opposite force. Given this, the cart must not move forward. What makes the cart and horse move forward?

- (a) The cart is rolling on the wheel while the horse is moving due to the traction offered by the track, and the two forces are acting on different bodies
- (b) for a brief moment the horse pulls the cart before the cart exert a reaction force
- (c) the forward and the backward reaction forces are equal and are acting in opposite direction so the cart won't move forward
- (d) the forward forces exerted by the horse is greater than the reaction force exerted by the cart, therefore the cart will move forward

Ans. (a)

Q40. If the normal force is doubled, then the coefficient of friction between the two surfaces,

- (a) it is halved
- (b) it is doubled
- (c) it remains unchanged
- (d) it is four times the normal force

Ans. (c)

Q41. A plane mirror is approaching you at a speed of 10 cm/sec. You can see your image in it. At what speed will your image approach you?

- (a) 10 cm/sec
- (b) 5 cm/sec
- (c) 20 cm/sec
- (d) 15 cm/sec

Ans. (c)

Q42. A body starts with 10m/s and applied brake certain time t the retardation of the body is 5 ms^{-2} . Find the value of t.

- (a) 5 seconds
- (b) 10 seconds
- (c) 2 seconds
- (d) 2.5 seconds

Ans. (c)

Q43. A 6 volt battery is connected to a three meter long wire of equal thickness and 100 ohm resistance. The potential difference between two points at a distance of 50 cm on the wire will be -

- (a) 1 volt
- (b) 1.5 volt
- (c) 2 volt
- (d) 3 volt

Ans. (a)

Q44. If we double the voltage across a resistor and also double the value of the current passing through the resistor. What change would be observed in the resistor?

- (a) the value of the resistor will be decreased
- (b) the value of the resistor will increase
- (c) it is not possible to determine
- (d) the value of the resistor will remain unchanged

Ans. (d)

Q45. What is the shape of the graph between the speed and kinetic energy of a body?

- (a) straight line
- (b) hyperbola
- (c) parabola
- (d) exponential

Ans. (c)

Q46. A hollow pendulum bob filled with water has a small hole at the bottom through which water escape at a constant rate. Which of the following statements describes the variation of the time period (T) of the pendulum as the water flows out?

- (a) T decreases first and then increases
- (b) T increases first and then decreases
- (c) T increases throughout
- (d) T does not change

Ans. (b)

Q47. With increase in temperature, the flow of liquid -

- (a) increases
- (b) decreases
- (c) remains constant
- (d) no effect

Ans. (a)

Q48. What is the reason for rise of any liquid in the capillary tube?

- (a) viscosity
- (b) osmosis
- (c) diffusion
- (d) surface tension

Ans. (d)

Q49. Which of the following will make a virtual and erect image for each position of the object?

- (a) convex mirror
- (b) convex lens
- (c) concave mirror
- (d) none of these

Ans. (a)

Q50. A galvanometer can be converted into an ammeter by addition of which of the following?

- (a) a low resistance in series sequence
- (b) a low resistance in parallel sequence
- (c) a high resistance in series sequence
- (d) a high resistance in parallel sequence

Ans. (b)

