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## NVS TGT (Science) Official Papeld On\_ 28th Nov 2022 Shift 1) 1

- Q 1 Which of the following organisation is going to coordinate research funding with other funding agencies and work with scientists, engineers and other academics, to ensure the synergy of purpose and avoid duplication of efforts as per the NEP 2020 ?
- (1) University Grants Commission
  - (2) National Department of Science and Technology
  - (3) National Research Foundation
  - (4) Indian Council of Agricultural Research
- Q 2 Which of the following ministries took the initiative of Atal Ranking of Institutions on Innovation Achievements (ARIIA) ?
- (1) Ministry of Education
  - (2) Ministry of Skill Development and Entrepreneurship
  - (3) Ministry of Electronics and Information Technology
  - (4) Ministry of Science and Technology
- Q 3 In 2022 India will be conducting military exercises 'Yudh Abhyas' with which of the following country ?
- (1) Japan
  - (2) USA
  - (3) China
  - (4) Pakistan
- Q 4 Which of the following statements is/are correct with regard to the Vice President of India ?
- Select the correct option using the codes given below :
- A. He must be a member of Parliament.
  - B. He is elected in accordance with the system of proportional representation by means of single transferable vote.
  - C. He should not hold any other office of profit.
- (1) A only
  - (2) A and C only
  - (3) B and C only
  - (4) A and B only
- Q 5 Who among the following won the gold medal in the women's flyweight (50-52 Kilogram) category at the Women's World Boxing Championship 2022 held in Turkey ?
- (1) Mary Kom
  - (2) Jenny R.L.
  - (3) Sarita Devi
  - (4) Nikhat Zareen
- Q 6 Who among the following won the Men's Singles title in the French Open held in June 2022 ?
- (1) Novak Djokovic
  - (2) Rafael Nadal
  - (3) Casper Ruud
  - (4) Nicolas Mahut
- Q 7 Among the following physicists who was conferred the Templeton Prize in 2022 ?
- (1) Andre Jim
  - (2) Frank Wilczek
  - (3) Vera Rubin

- (4) Stephen Hawking
- Q 8 Which of the following country was the world's largest exporter of major arms in 2017-21, as per 'Trends in International Arms Transfers, 2021' the latest fact sheet of the Stockholm International Peace Research Institute ?
- (1) China
  - (2) USA
  - (3) Russia
  - (4) France
- Q 9 Which of the following is the aim of the Energy Conservation (Amendment) Bill, 2022 ?
- (1) To hasten green transition
  - (2) To conserve groundwater level
  - (3) To enhance usage of fossil resources
  - (4) To prohibit carbon emission
- Q 10 When is National Milk Day celebrated in India ?
- (1) 26<sup>th</sup> November, 2022
  - (2) 26<sup>th</sup> December, 2022
  - (3) 26<sup>th</sup> October, 2022
  - (4) 26<sup>th</sup> September, 2022





- Q 1 राष्ट्रीय शिक्षा नीति 2020 के अनुसार निम्न में से कौन-सी संस्था दूसरी निधिकरण एजेंसियों के साथ समन्वित होगी और वैज्ञानिकों, इंजीनियरों और अन्य शैक्षिकों के साथ कार्य करके यह सुनिश्चित करेगी कि उद्देश्य में सहयोग रहे और द्विगुणीकरण के प्रयासों से बचा जा सके ?
- (1) विश्वविद्यालय अनुदान आयोग
  - (2) राष्ट्रीय विज्ञान एवं प्रौद्योगिकी विभाग
  - (3) राष्ट्रीय अनुसंधान प्रतिष्ठान
  - (4) राष्ट्रीय कृषि अनुसंधान परिषद
- Q 2 निम्न में से किस मंत्रालय ने अटल रैंकिंग ऑफ इंस्टिट्यूशन्स ऑन इनोवेशन अचीवमेंट्स (ARIIA) प्रारंभ किया ?
- (1) शिक्षा मंत्रालय
  - (2) कौशल विकास और उद्यमिता मंत्रालय
  - (3) इलेक्ट्रॉनिकी और सूचना प्रौद्योगिकी मंत्रालय
  - (4) विज्ञान और प्रौद्योगिकी मंत्रालय
- Q 3 वर्ष 2022 में भारत निम्नांकित में से किस देश के साथ सैन्य अभ्यास अर्थात् 'युद्धाभ्यास' (YUDH) करेगा ?
- (1) जापान
  - (2) संयुक्त राज्य अमेरिका
  - (3) चीन
  - (4) पाकिस्तान
- Q 4 भारत के उप-राष्ट्रपति के संबंध में निम्नलिखित में से कौन-सा/से कथन सही है/हैं ?
- नीचे दिये गये कूट का प्रयोग कर सही विकल्प का चयन कीजिए :
- A. उसे संसद का सदस्य होना चाहिये ।
  - B. उसे एकल हस्तान्तरणीय मतों का उपयोग करके आनुपातिक प्रतिनिधित्व द्वारा चुना जाता है ।
  - C. वह लाभ का कोई अन्य पद धारण नहीं कर सकता हो ।
- (1) केवल A
  - (2) केवल A और C
  - (3) केवल B और C
  - (4) केवल A और B
- Q 5 निम्नलिखित में से किसने टर्की में आयोजित वुमन वर्ल्ड बॉक्सिंग चैंपियनशिप 2022 में वुमन फ्लाई-भार (50-52 किलोग्राम) वर्ग में स्वर्ण पदक जीता ?
- (1) मेरी कॉम
  - (2) जेनी आर.एल.
  - (3) सरिता देवी
  - (4) निखत ज़रीन
- Q 6 जून 2022 में आयोजित फ्रेंच ओपन एकल पुरुष का खिताब किसने जीता है ?
- (1) नौवैक जोकोविच
  - (2) राफेल नडाल
  - (3) कैस्पर रूड
  - (4) निकोलस माहूत



- Q 7 निम्नलिखित में से किस भौतिक विज्ञानी को 2022 के टेम्प्लेटन पुरस्कार से सम्मानित किया गया ?
- (1) आंद्रे जीम
  - (2) फ्रैंक विल्कजेक
  - (3) वेरा रूबिन
  - (4) स्टीफन हॉकिंग
- Q 8 स्टॉकहोम अंतर्राष्ट्रीय शांति अनुसंधान संस्थान की नवीनतम तथ्य-पत्रक 'अंतर्राष्ट्रीय हथियार हस्तांतरण के रुझान, 2021' के अनुसार, निम्नलिखित में से 2017-21 में हथियारों का विश्व का सबसे बड़ा निर्यातक देश कौन-सा था ?
- (1) चीन
  - (2) सं. रा. अमेरिका
  - (3) रूस
  - (4) फ्रांस
- Q 9 निम्नलिखित में से ऊर्जा संरक्षण (संशोधन) विधेयक, 2022 का क्या लक्ष्य है ?
- (1) हरित संक्रमण में तेजी लाना
  - (2) भू-जल स्तर का संरक्षण करना
  - (3) जीवाश्म संसाधनों के उपयोग में वृद्धि लाना
  - (4) कार्बन उत्सर्जन को रोकना
- Q 10 भारत में राष्ट्रीय दुग्ध दिवस कब मनाया जाता है ?
- (1) 26 नवंबर, 2022
  - (2) 26 दिसंबर, 2022
  - (3) 26 अक्टूबर, 2022
  - (4) 26 सितंबर, 2022





Q 11 Four friends A, B, C and D compared their height. It was found that A is taller than B but shorter than C. D is shorter than C but taller than A. Which of the following is true ?

- (1) A is taller than D.
- (2) C is the tallest.
- (3) B and C are taller than A.
- (4) C is shorter than B.

Q 12 Given below is a question followed by two statements - I and II. Decide which of the statements is/are sufficient to answer the question.

What is used for 'good' ?

- I. 'Ya Na Sa' means 'I am good' and 'Sa Na Ke' means 'I am hungry'.
- II. 'Pi Ya Se' means 'She is good' and 'Ya Su To' means 'You are good'.

- (1) I alone is sufficient while II alone is not sufficient
- (2) II alone is sufficient while I alone is not Sufficient
- (3) Either I or II is sufficient
- (4) Neither I nor II is sufficient

Q 13 A statement is given followed by two conclusions – I and II. Consider the statement to be true even if it seems to be at variance from commonly known facts. Decide which of the given conclusions can definitely be drawn from the given statement.

*Statement :*

Indians prefer to wear cotton clothes in summer.

*Conclusions :*

- I. Cotton clothes are more comfortable during summer.
  - II. India is a hot country.
- (1) Only conclusion I follows
  - (2) Only conclusion II follows
  - (3) Both conclusions I and II follow
  - (4) Neither conclusion I nor II follows

Q 14 Three statements have been given, which are followed by two conclusions I and II. Assuming that the given statements are true, find out which of the conclusions is/are definitely true.

*Statements :*

$$Q < W,$$

$$D \leq Q,$$

$$W = L$$

*Conclusions :*

I.  $D \leq W$

II.  $L \geq Q$



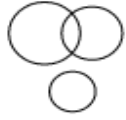
- (1) Only conclusion I is true  
(2) Only conclusion II is true  
(3) Both conclusions I and II are true  
(4) Neither conclusion I nor II is true
- Q 15 A is the brother of B; C is the mother of A; B is the granddaughter of D; and F is the son of A. How is F related to D ?
- (1) Grandson  
(2) Great Grandson  
(3) Brother  
(4) Son
- Q 16 Find the missing term of the given series.  
24, 96, 48, 192, \_\_?\_\_, 384, 192
- (1) 64  
(2) 96  
(3) 112  
(4) 144
- Q 17 Find the next term of the given series.  
T, Y, D, I, \_\_?\_\_
- (1) M  
(2) N  
(3) O  
(4) P
- Q 18 If North-West becomes South, South-West becomes East and so on, then South-East becomes
- (1) East  
(2) West  
(3) North  
(4) South
- Q 19 Two statements are labelled below as Assertion (A) and Reason (R). Select the correct answer with the help of code.
- Assertion (A) :*  
Plaster of Paris is used for setting fractured bones by doctors.
- Reason (R) :*  
If Plaster of Paris is mixed with water and used around the fractured limb, it sets into a hard mass.
- (1) Both A and R are true and R is the correct explanation of A.  
(2) Both A and R are true but R is not the correct explanation of A.  
(3) A is true but R is false.  
(4) A is false but R is true.
- Q 20 Identify the Venn Diagram that best represents the relationship among three groups of people – Fathers, Sons, and Men.
- (1)



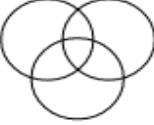




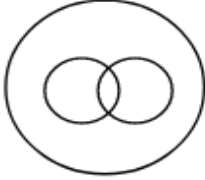
(2)



(3)



(4)



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- Q 11 चार मित्र A, B, C और D अपनी लम्बाई की तुलना करते हैं। यह पाया गया कि A की लम्बाई B से अधिक है लेकिन C से कम है। D की लम्बाई C से कम है किन्तु A से अधिक है। निम्नलिखित में से कौन-सा सत्य है ?
- (1) A की लम्बाई D से अधिक है।
  - (2) C की लम्बाई सबसे अधिक है।
  - (3) B तथा C की लम्बाई A से अधिक है।
  - (4) C की लम्बाई B से कम है।
- Q 12 नीचे एक प्रश्न दिया गया है जिसके बाद दो कथन I और II दिए गए हैं। निर्णय कीजिए कि कौन-सा/से कथन प्रश्न का उत्तर देने के लिए पर्याप्त है/हैं।

‘Good’ किसका अर्थ है ?

- I. ‘Ya Na Sa’ का अर्थ है ‘I am good’ और ‘Sa Na Ke’ का अर्थ है ‘I am hungry’.
- II. ‘Pi Ya Se’ का अर्थ है ‘She is good’ और ‘Ya Su To’ का अर्थ है ‘You are good’.

- (1) अकेला I पर्याप्त है जबकि अकेला II पर्याप्त नहीं है
- (2) अकेला II पर्याप्त है जबकि अकेला I पर्याप्त नहीं है
- (3) या तो I या II पर्याप्त है
- (4) न तो I न ही II पर्याप्त है

- Q 13 नीचे एक कथन दिया गया है जिसके बाद दो निष्कर्ष I और II दिए गए हैं। कथन को सत्य मानिए चाहे वह सामान्यतः ज्ञात तथ्यों से भिन्न प्रतीत होता हो। निर्णय कीजिए कि कौन-सा/से दिए गए निष्कर्ष निश्चित रूप से दिए गए कथन से निकलता है/निकलते हैं।

कथन:

गर्मियों में भारतीय लोग सूती कपड़े पहनना पसंद करते हैं।

निष्कर्ष:

- I. सूती कपड़े गर्मियों में ज्यादा आरामदायक होते हैं।
  - II. भारत एक गर्म देश है।
- (1) केवल निष्कर्ष I निकलता है
  - (2) केवल निष्कर्ष II निकलता है
  - (3) निष्कर्ष I और II दोनों निकलते हैं
  - (4) न तो निष्कर्ष I न ही निष्कर्ष II निकलता है

- Q 14 तीन कथनों के बाद दो निष्कर्ष I और II दिए गए हैं। दिए गए कथनों को सत्य मानते हुए, यह ज्ञात कीजिए कि कौन-सा/से निष्कर्ष निश्चित रूप से सत्य है/हैं।

कथन:

$$Q < W,$$

$$D \leq Q,$$

$$W = L$$



निष्कर्ष :

I.  $D \leq W$

II.  $L \geq Q$

- (1) केवल निष्कर्ष I सत्य है
- (2) केवल निष्कर्ष II सत्य है
- (3) निष्कर्ष I तथा II दोनों ही सत्य हैं
- (4) न तो निष्कर्ष I और न ही II सत्य है

Q 15 A, B का भाई है ; C, A की माँ है ; B, D की पौत्री है ; और F, A का पुत्र है । F का D से क्या सम्बन्ध है ?

- (1) पौत्र
- (2) प्रपौत्र
- (3) भाई
- (4) पुत्र

Q 16 दी गई श्रेणी का लुप्त पद ज्ञात कीजिए ।

24, 96, 48, 192, \_\_?\_\_, 384, 192

- (1) 64
- (2) 96
- (3) 112
- (4) 144

Q 17 दी गई श्रेणी का अगला पद ज्ञात कीजिए ।

T, Y, D, I, \_\_?\_\_

- (1) M
- (2) N
- (3) O
- (4) P

Q 18 यदि उत्तर-पश्चिम को दक्षिण, दक्षिण-पश्चिम को पूर्व, इसी प्रकार बाकी को किया जाये, तो दक्षिण-पूर्व को क्या कहेंगे ?

- (1) पूर्व
- (2) पश्चिम
- (3) उत्तर
- (4) दक्षिण

Q 19 नीचे दो कथन दिए गए हैं जिन्हें अभिकथन (A) और तर्क (R) चिह्नित किया गया है । कूट की सहायता से सही उत्तर का चयन कीजिए ।

अभिकथन (A) :

डॉक्टर टूटी हड्डियों को बिठाने के लिए प्लास्टर ऑफ पैरिस का प्रयोग करते हैं ।

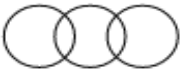
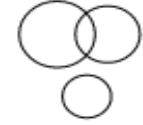
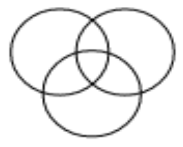
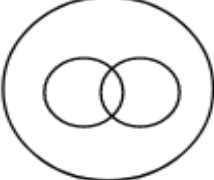
तर्क (R) :

यदि प्लास्टर ऑफ पैरिस में पानी मिला दिया जाए और टूटी हड्डी के चारों ओर प्रयोग किया जाए, तो यह कठोर सतह बन जाता है ।



- (1) A और R दोनों सही हैं और R, A की सही व्याख्या है ।
- (2) A और R दोनों सही हैं परन्तु R, A की सही व्याख्या नहीं है ।
- (3) A सही है परन्तु R गलत है ।
- (4) A गलत है परन्तु R सही है ।

Q 20 उस वेन आरेख को चुनिए जो तीन तरह के व्यक्तियों – पिता, पुत्र और पुरुषों के बीच के संबंध को सही निरूपित करता हो ।

- (1) 
- (2) 
- (3) 
- (4) 





- Q 21 I am a friendly software created specifically to prevent, detect, scan and remove malicious software from files or computer systems. Who am I ?
- (1) Firewall
  - (2) Cookies
  - (3) Antivirus
  - (4) Malware
- Q 22 Which of following device can **not** be used as input device in a computer system ?
- (1) Joystick
  - (2) Touch Pad
  - (3) Keyboard
  - (4) Plotter
- Q 23 What is the expansion of CU ?
- (1) Central Unit
  - (2) Control Unit
  - (3) Compress Unit
  - (4) Creative Unit
- Q 24 Which of the following is **not** an example of a web browser ?
- (1) Microsoft Edge
  - (2) Google Chrome
  - (3) Safari
  - (4) Unix
- Q 25 I can be a hardware device or a software program or a combination of both and I am used to filter out data that comes through a network or the Internet. Who am I ?
- (1) Malware
  - (2) Cookies
  - (3) Antivirus
  - (4) Firewall
- Q 26 Radhika wants to maintain the test scores of all her students in a tabular format to perform mathematical calculations and prepare result sheets. Which of the following software of the Microsoft Office package is the best suited for this purpose ?
- (1) MS Word
  - (2) MS PowerPoint
  - (3) MS Access
  - (4) MS Excel
- Q 27 I am a shortcut key which is used to undo your last action while working on MS Word. Who am I ?
- (1) Alt + Z
  - (2) Ctrl + Z
  - (3) Ctrl + X
  - (4) Alt + X
- Q 28 Which of the following is **not** an effective practice to secure our passwords ?
- (1) Use password managers
  - (2) Passwords should contain memorable data for easy recall
  - (3) Passwords should be changed frequently
  - (4) Passwords should not be written down in a file



- Q 29 I am unsolicited and unwanted email that has not received permission from a recipient to enter his/her inbox. Who am I ?
- (1) Virus
  - (2) Hacker
  - (3) Spam
  - (4) Spyware
- Q 30 Services available on the Internet include :
- a. Locating people using social networking sites
  - b. Downloading and uploading files from or to remote sites
  - c. Playing community games
  - d. Maintaining journals
  - e. Forming groups and sharing views with like-minded people
- (1) a, c, d, e
  - (2) a, b, c, e
  - (3) a, b, c, d
  - (4) a, b, c, d, e





Q मैं एक हितैषी सॉफ्टवेयर हूँ जिसे विशेष रूप से फाइलों या कम्प्यूटर सिस्टम को दुर्भावपूर्ण सॉफ्टवेयर से बचाने,  
21 उसका पता करने, स्कैन करने और उसे रिमूव करने के लिए बनाया गया है। मैं कौन हूँ ?

- (1) फायरवॉल
- (2) कुकीज़
- (3) एंटीवायरस
- (4) मालवेयर

Q किसी कम्प्यूटर सिस्टम में निम्नलिखित में से किसे इनपुट डिवाइस के रूप में प्रयोग **नहीं** किया जा सकता है ?

- (1) जॉयस्टिक
- (2) टच पैड
- (3) कीबोर्ड
- (4) प्लॉटर

Q सी यू (CU) का विस्तार क्या है ?

- (1) सेन्ट्रल यूनिट
- (2) कंट्रोल यूनिट
- (3) कम्प्रेस यूनिट
- (4) क्रिएटिव यूनिट

Q निम्नलिखित में से कौन-सा एक वेब ब्राउजर का उदाहरण **नहीं** है ?

- (1) माइक्रोसॉफ्ट एज
- (2) गूगल क्रोम
- (3) सफारी
- (4) यूनिक्स

Q मैं एक हार्डवेयर डिवाइस अथवा एक सॉफ्टवेयर प्रोग्राम अथवा दोनों का संयोजन (कंबीनेशन) हो सकता हूँ और मेरा  
25 प्रयोग किसी नेटवर्क अथवा इंटरनेट के माध्यम से आने वाले डाटा को फिल्टर करने के लिए किया जाता है। मैं कौन हूँ ?

- (1) मालवेयर
- (2) कुकीज़
- (3) एंटीवायरस
- (4) फायरवॉल

Q राधिका अपने सभी विद्यार्थियों के टेस्ट स्कोर को तालिकाबद्ध (टैब्यूलर) फॉर्मेट में रखना चाहती है ताकि गणितीय  
26 परिकलन करके रिजल्ट शीट तैयार की जा सके। इस प्रयोजन के लिए माइक्रोसॉफ्ट ऑफिस पैकेज का निम्नलिखित में से कौन-सा सॉफ्टवेयर सर्वाधिक उपयुक्त रहेगा ?

- (1) एम एस वर्ड
- (2) एम एस पावरप्वाइंट
- (3) एम एस एक्सेस
- (4) एम एस एक्सेल

Q मैं एक शॉर्टकट की हूँ जिसका प्रयोग एम एस वर्ड में कार्य करते समय अपने पिछले एक्शन को अनडू (Undo) करने  
27 के लिए किया जाता है। मैं कौन हूँ ?

- (1) Alt + Z



- (2) Ctrl + Z
- (3) Ctrl + X
- (4) Alt + X

Q 28 अपने पासवर्ड को सुरक्षित करने के लिए निम्नलिखित में से कौन-सी प्रक्रिया प्रभावी **नहीं** है ?

- (1) पासवर्ड मैनेजर का प्रयोग करना
- (2) आसानी से याद करने के लिए पासवर्ड में स्मरणीय डाटा होना चाहिए
- (3) पासवर्ड को जल्दी-जल्दी बदलते रहना चाहिए
- (4) पासवर्ड को किसी फाइल में नहीं लिखना चाहिए

Q 29 मैं एक अप्रार्थित और अनचाही ईमेल हूँ जिसे किसी प्राप्तकर्ता से उसके इनबॉक्स में प्रवेश करने हेतु कोई अनुमति प्राप्त नहीं हुई है। मैं कौन हूँ ?

- (1) वायरस
- (2) हैकर
- (3) स्पैम
- (4) स्पाइवेयर

Q 30 इंटरनेट पर उपलब्ध सर्विस में शामिल है :

- a. सोशल नेटवर्किंग साइट का प्रयोग करने वाले लोगों का पता लगाना
  - b. रिमोट साइट से अथवा पर फाइलें डाउनलोड और अपलोड करना
  - c. कम्युनिटी गेम्स खेलना
  - d. जर्नल का रख-रखाव करना
  - e. ग्रुप (समूह) बनाना और समान विचार वाले लोगों के साथ व्यूज (विचार) साझा करना
- (1) a, c, d, e
  - (2) a, b, c, e
  - (3) a, b, c, d
  - (4) a, b, c, d, e







- Q 31 Interaction inside the classroom, in teaching-learning scenario, should generate
- (1) information
  - (2) argument
  - (3) ideas
  - (4) debate
- Q 32 For developing creative thinking among the students, which type of questions should be asked by the teacher ?
- (1) Open-ended and subjective questions
  - (2) Multiple choice questions
  - (3) Short answer type questions
  - (4) Closed-ended questions
- Q 33 Read the following statements (a) to (f) about the nature and objectives of teaching :
- (a) Teaching and learning are integrally related.
  - (b) There is no difference between teaching and training.
  - (c) Concern of all teaching is to ensure social transformation in students.
  - (d) All good teaching is formal in nature.
  - (e) A teacher is a senior person.
  - (f) Teaching is a social act whereas learning is a personal act.

Select the correct options from the statements (a) to (f) that best describe the nature and objectives of teaching.

- (1) (a), (c) and (f) are correct
  - (2) (d), (e) and (f) are correct
  - (3) (b), (c) and (e) are correct
  - (4) (a), (b) and (d) are correct
- Q 34 Sunita, aged 5, tends to repeat a particular 'act' over and over; then moves on to another 'act', which in turn she repeats again. Her behaviour indicates
- (1) She is probably mentally retarded
  - (2) Nothing unusual, this is normal process of development
  - (3) She feels insecure and is suffering from tunnel vision
  - (4) She seems to have persistence and will power
- Q 35 Frustration of one's motive always results in
- (1) increased motivation
  - (2) personality distortion
  - (3) increased tension
  - (4) downgrading self-concept
- Q 36 In classrooms, learning proceeds most effectively if there is \_\_\_\_\_ by the teacher.
- Select the correct option to fill in the blank.
- (1) exclusive motivation
  - (2) rapid feedback
  - (3) frequent questioning
  - (4) immediate recapitulation
- Q 37 For good teaching in the class, first of all, a teacher should be well aware
- (1) of motivational techniques to be used in the class.

- (2) of response which he is looking for in the class.
- (3) of teaching-learning material to be used in the class.
- (4) about what does he want to teach in the class.

Q 38 Which one of the following is **not** a nature of “teaching” profession ?

- (1) Learner oriented
- (2) Helping in being obedient to the Governments
- (3) Dynamism
- (4) Humane

Q 39 During curriculum development, the evaluation used to improve the content learning is called

- (1) formative evaluation
- (2) summative evaluation
- (3) diagnostic evaluation
- (4) critical evaluation

Q 40 Which of the following is **not** a projected teaching aid ?

- (1) OHP
- (2) Epidiascope
- (3) Blackboard
- (4) Slide projector





Q 31 कक्षा में शिक्षण-अधिगम प्रक्रिया में पारस्परिक क्रिया से

- (1) सूचना उत्पन्न होनी चाहिए
- (2) तर्क-वितर्क उत्पन्न होना चाहिए
- (3) विचार उत्पन्न होने चाहिए
- (4) वाद-विवाद उत्पन्न होना चाहिए

Q 32 विद्यार्थियों में सर्जनात्मक चिंतन विकसित करने हेतु, अध्यापक को किस प्रकार के प्रश्न पूछने चाहिए ?

- (1) असीमित एवं व्यक्तिनिष्ठ प्रश्न
- (2) वस्तुनिष्ठ प्रश्न
- (3) लघु-उत्तर प्रकार के प्रश्न
- (4) सीमित प्रश्न

Q 33 शिक्षण की प्रकृति एवं उद्देश्यों के बारे में निम्न वक्तव्यों (a) से (f) को पढ़िए :

- (a) शिक्षण एवं अधिगम अंतर्भूत रूप से जुड़े हुए हैं ।
- (b) शिक्षण एवं प्रशिक्षण में कोई अंतर नहीं है ।
- (c) सभी प्रकार के शिक्षण का संबंध विद्यार्थियों में कुछ रूपांतरण सुनिश्चित करने से है ।
- (d) स्वाभाविक रूप से सभी अच्छा शिक्षण औपचारिक होता है ।
- (e) एक शिक्षक वरिष्ठ व्यक्ति होता है ।
- (f) शिक्षण एक सामाजिक क्रिया है जबकि अधिगम एक व्यक्तिगत क्रिया है ।

वक्तव्य (a) से (f) के बारे में सही विकल्प का चयन कीजिए जो शिक्षण की प्रकृति एवं उद्देश्यों का सर्वोत्तम वर्णन करते हैं ।

- (1) (a), (c) एवं (f) सही हैं
- (2) (d), (e) एवं (f) सही हैं
- (3) (b), (c) एवं (e) सही हैं
- (4) (a), (b) एवं (d) सही हैं

Q 34 सुनीता, जिसकी आयु 5 वर्ष है, एक विशिष्ट 'क्रिया' को बार-बार दोहराती है, फिर वह कोई दूसरी 'क्रिया' करने लगती है और फिर उसे भी बार-बार दोहराती है । उसका व्यवहार दर्शाता है कि

- (1) वह मानसिक रूप से पिछड़ी हुई है
- (2) यह कोई असामान्य नहीं है और यह एक सामान्य विकास प्रक्रिया है
- (3) वह असुरक्षित अनुभव करती है और उसका एकांगी दृष्टिकोण है
- (4) ऐसा प्रतीत होता है कि वह दृढ़ है और इच्छा शक्ति रखती है

Q 35 किसी के उद्देश्य के विफलकरण से सदैव जनित होता/होती है

- (1) बढ़ा हुआ अभिप्रेरण
- (2) व्यक्तित्व विकार
- (3) तनाव में वृद्धि
- (4) स्व-अवधारणा में गिरावट

Q 36 कक्षा में अधिगम बहुत प्रभावशाली तरीके से होता है यदि अध्यापक द्वारा \_\_\_\_\_ ।

रिक्त स्थान को भरने हेतु सही विकल्प का चयन कीजिए ।

- (1) प्रचुर अभिप्रेरण दिया जाता है
- (2) शीघ्र प्रतिपुष्टि की जाती है



- (3) अकसर प्रश्न पूछे जाते हैं
- (4) तात्कालिक सारकथन किया जाता है

Q 37 कक्षा में अच्छे शिक्षण हेतु, सर्वप्रथम एक शिक्षक को बोध होना चाहिए

- (1) कक्षा में प्रयोग होने वाली अभिप्रेरण तकनीकों का
- (2) उन प्रतिक्रियाओं का जिनकी वह कक्षा में अपेक्षा कर रहा है
- (3) कक्षा में प्रयोग होने वाली शिक्षण-अधिगम सामग्री का
- (4) कि वह कक्षा में क्या पढ़ाना चाहता है

Q 38 निम्न में से कौन-सा एक “शिक्षण” व्यवसाय की एक प्रकृति **नहीं** है ?

- (1) अधिगमकर्ता उन्मुखी
- (2) सरकारों के प्रति आज्ञाकारी बनने में सहायक होना
- (3) गत्यात्मकता
- (4) मानवोचित

Q 39 पाठ्यचर्या विकास में विषय-वस्तु अधिगम को सुधारने हेतु प्रयोग किया जाने वाला मूल्यांकन कहलाता है

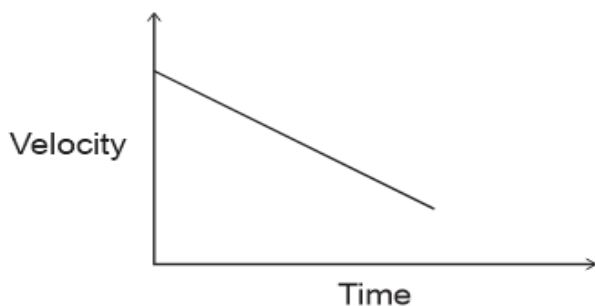
- (1) निर्माणात्मक मूल्यांकन
- (2) संकलनात्मक मूल्यांकन
- (3) नैदानिक मूल्यांकन
- (4) आलोचनात्मक मूल्यांकन

Q 40 निम्न में से कौन-सा एक प्रक्षिप्त शिक्षण सहायक सामग्री **नहीं** है ?

- (1) ओ.एच.पी.
- (2) पारापार चित्रदर्शी
- (3) श्यामपट्ट
- (4) स्लाइड प्रोजेक्टर



Q 41 Which of the following situations is depicted by the given graph ?

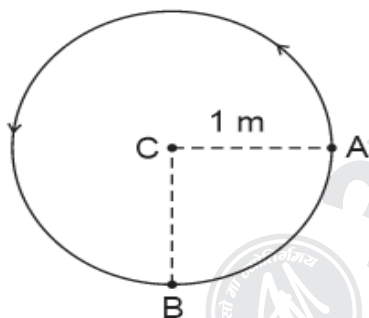


- (1) The object is moving with non-uniform acceleration
- (2) The object is moving with non-uniform retardation
- (3) The object is moving with uniform acceleration
- (4) The object is moving with uniform retardation

Q 42 A particle moves along a semicircular path of radius 20 m in 10 seconds. The average speeds of the particle is

- (1) 2 m/s
- (2) 4 m/s
- (3)  $2\pi$  m/s
- (4)  $4\pi$  m/s

Q 43 An object travels from point A to point B as shown in the figure. The distance and the magnitude of displacement for the motion are respectively

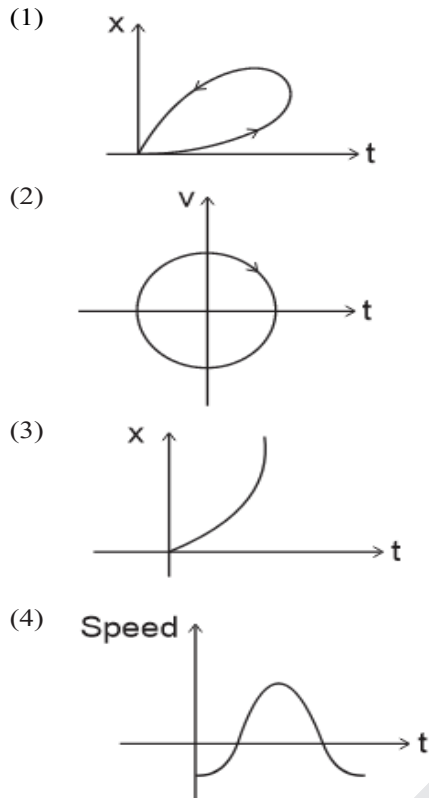


- (1)  $\sqrt{2}$  m,  $\sqrt{2}$  m
- (2)  $1.5\pi$  m,  $\sqrt{2}$  m
- (3)  $1.5\pi$  m,  $1.5\pi$  m
- (4)  $\sqrt{2}$  m,  $1.5\pi$  m

Q 44 In which of the following situations, the velocity of an object may be zero at some instant but its acceleration is not zero at that instant ?

- A. An object released from a certain height
  - B. A ball thrown up
  - C. An object moving in a uniform circular motion
- (1) A and B
  - (2) B and C
  - (3) A and C
  - (4) A only

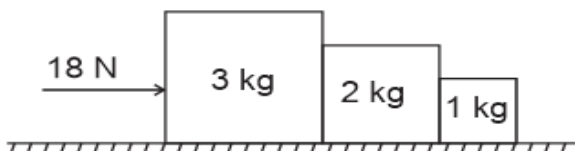
Q 45 Which of the following graphs can possibly represent one-dimensional motion of a particle ?



Q 46 Two spheres of mass  $m_1$  and  $m_2$  have gravitational force  $F$  acting between them, when placed in air at a distance  $d$ . On placing the same spheres at the same distance in a liquid medium of relative density 4, the gravitational force between them will

- (1) become  $4 F$
- (2) become  $\frac{F}{4}$
- (3) be  $F$
- (4) become zero

Q 47 Three blocks of mass 3 kg, 2 kg, and 1 kg respectively are placed in contact with each other on a smooth horizontal surface as shown in the figure. A horizontal force of 18 N is applied on the 3 kg block. Find the net force on the 2 kg block.



- (1) 18 N
- (2) 6 N
- (3) 9 N
- (4) 0 N

Q 48 Two balls A and B of the same size are dropped from the top of a building. The mass of A is greater than the mass of B. Assuming that air resistance acting on the balls is the same, which ball reaches the ground first ?



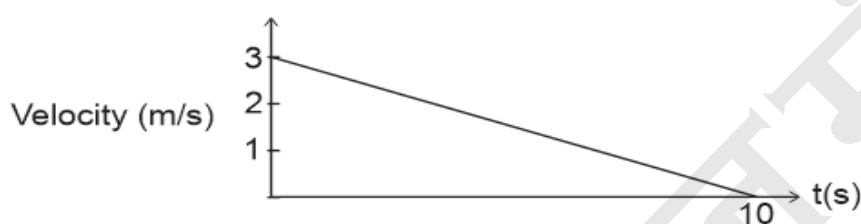
- (1) Ball A
- (2) Ball B
- (3) Both reach at the same time
- (4) Cannot be concluded

Q 49 Rahul raises a ball of mass 1.0 kg through a height of 2.0 m. The work done by Rahul and the force of gravity are respectively ( $g = 10 \text{ m/s}^2$ )

- (1) 20 J, 20 J
- (2) -20 J, -20J
- (3) 20 J, -20 J
- (4) -20 J, 20 J

Q 50 The velocity-time graph of a ball of mass 50 g moving along a straight line on a table is depicted in the following figure.

Calculate the force exerted on the ball by the table to bring it to rest.



- (1) 15 N
- (2) 0.015 N
- (3) Zero
- (4) 1.5 N

Q 51 A bullet of mass 25 g is fired horizontally with a velocity of 120 m/s from a pistol of 2.5 kg. The recoil velocity of the pistol is

- (1) -0.6 m/s
- (2) 0.6 m/s
- (3) -1.2 m/s
- (4) 1.2 m/s

Q 52 Two solid objects X and Y float in water such that X floats with  $\left(\frac{1}{2}\right)$  of its body immersed in water whereas Y floats with  $\left(\frac{1}{4}\right)$  of its volume above the water level. The ratio of density of X to that of Y is

- (1) 4 : 3
- (2) 3 : 4
- (3) 2 : 3
- (4) 1 : 2

Q 53 The lower half of a concave mirror is made opaque. What can you say about the nature of the image formed when an object is placed in front of it ?

- (1) Intensity of image increases
- (2) The image will show half of the object
- (3) Intensity of image decreases
- (4) No change in image

Q 54 Two lenses  $L_1$  (10 D) and  $L_2$  (12.5 D) are arranged parallel to each other coaxially at a separation of 44 cm, in vertical planes. An object is placed to the left of  $L_1$ , at a distance of 20 cm from  $L_1$ , at its principal axis. The distance between the object and its final image formed is



- (1) 66 cm
- (2) 76 cm
- (3) 86 cm
- (4) 96 cm

Q 55 A ray of light passes from a block of ice ( $n = 1.31$ ) to kerosene ( $n = 1.44$ ). In kerosene it bends \_\_\_\_\_ the normal and \_\_\_\_\_.

- (1) away from, slows down
- (2) towards, slows down
- (3) away from, speeds up
- (4) towards, speeds up

Q 56 The refractive index of glass is 1.5 for light whose wavelength in vacuum is 6000 Å. The wavelength of this light when it passes through glass is

- (1) 4000 Å
- (2) 6000 Å
- (3) 9000 Å
- (4) 15000 Å

Q 57 A ball of mass 200 g is thrown vertically upward with a velocity of 40 m/s at  $t = 0$  s. At  $t = 1.0$  s, the ratio of its potential energy (P) to its kinetic energy (K),  $\left(\frac{P}{K}\right)$  is ( $g = 10 \text{ m/s}^2$ )

- (1)  $\frac{5}{7}$
- (2)  $\frac{6}{7}$
- (3)  $\frac{7}{9}$
- (4)  $\frac{8}{9}$

Q 58 Read the following statements carefully and select the correct option :

Assertion (A) :

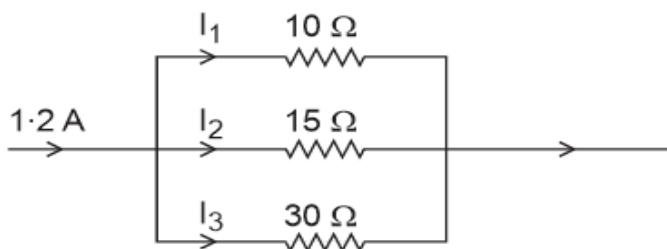
The resistance of a metal increases with increasing temperature.

Reason (R) :

The number of conduction electrons increases with temperature.

- (1) Both A and R are true and R is the correct explanation for A.
- (2) Both A and R are true but R is not the correct explanation for A.
- (3) A is true but R is false.
- (4) Both A and R are false.

Q 59 In the following circuit, find the value of  $I_2$ .



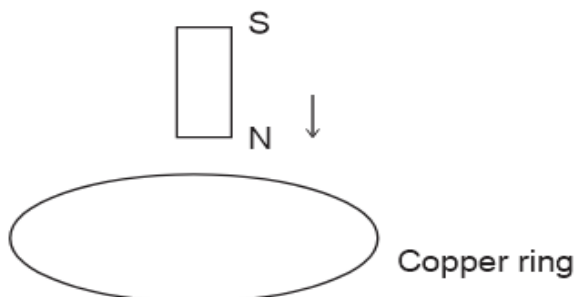


- (1) 1.2 A
- (2) 0.4 A
- (3) 0.6 A
- (4) 0.2 A

Q A bar magnet is dropped and it passes through a copper ring as shown in the diagram.

60

The acceleration of the falling magnet while passing through the ring is



- (1) equal to acceleration due to gravity
- (2) more than the acceleration due to gravity
- (3) less than the acceleration due to gravity
- (4) zero

Q If the length and radius of a wire are doubled, then

61

- (1) the resistance is doubled and the electric resistivity is halved
- (2) the resistance is halved and electric resistivity remains the same
- (3) the resistance is halved and the electric resistivity is doubled
- (4) the resistance is doubled and the electric resistivity remains the same

Q The alloy constantan is used to make standard resistance because of

62

- A. low resistivity
  - B. high resistivity
  - C. low temperature coefficient of resistivity
  - D. high temperature coefficient of resistivity
- (1) A and C
  - (2) B and C
  - (3) A and D
  - (4) B and D

Q Medha (mass 40 kg) climbs through 24 stairs, each of 20 cm in one minute. The power expended by her is ( $g =$

63  $10 \text{ m/s}^2$ )

- (1) 16 W
- (2) 24 W
- (3) 32 W
- (4) 48 W

Q In a hearing aid, which of the following of sound wave is changed ?

64

- (1) Amplitude
- (2) Frequency
- (3) Velocity
- (4) Wavelength

Q 65 A man standing on a cliff hears the echo of his shout after 1 s. If the velocity of sound in air is 340 m/s, what is the distance between the man and the mountain from which his voice is reflected ?

- (1) 340 m
- (2) 170 m
- (3) 680 m
- (4) 85 m

Q 66 Two substances A and B react to form C. Which of the following statements is correct ?

- (1) A and B are elements whereas C may be an element or a compound
- (2) A, B and C are all elements
- (3) A and B are elements only whereas C is a compound
- (4) A and B may be elements or compounds and C is a compound

Q 67 Which of the following statement(s) is/are *incorrect* ?

- A. A molecule of a compound has atoms of different elements only.
  - B. A compound cannot be separated into its constituent elements by physical methods.
  - C. A compound retains the physical properties of its constituent elements.
- (1) A and B
  - (2) A and C
  - (3) B and C
  - (4) C only

Q 68 Which of the following is a correct formula for sodium carbonate ?

- (1)  $\text{NaCO}_3$
- (2)  $\text{Na}_2\text{CO}_3$
- (3)  $\text{NaHCO}_3$
- (4)  $\text{Na}_3\text{CO}_3$

Q 69 What is the mass of 0.5 mole of nitrogen gas ?

- (1) 7 g
- (2) 14 g
- (3) 28 g
- (4)  $6.02 \times 10^{23}$  g

Q 70 A bivalent metal 'X' has an equivalent mass of 32. The molecular mass of the nitrate salt of this metal 'X' would be

- (1) 182
- (2) 192
- (3) 188
- (4) 168

Q 71 Which of the following is an amphoteric oxide ?

- (1)  $\text{Na}_2\text{O}$
- (2)  $\text{CaO}$
- (3)  $\text{CuO}$
- (4)  $\text{Al}_2\text{O}_3$

Q 72 Which of the following is *not* a chemical change ?

- (1) Burning of magnesium in air



- (2) Tarnishing of silver spoon
- (3) Electrolysis of water
- (4) Sublimation of iodine

Q 73 Which of the following statements is true in context of the following reaction :



- (1)  $\text{H}_2\text{S}$  is oxidised and  $\text{Cl}_2$  is reduced
- (2)  $\text{H}_2\text{S}$  is reduced and  $\text{Cl}_2$  is oxidised
- (3) This is an example of double displacement reaction
- (4) This is an example of combination reaction

Q 74 Which of the following methodology should be adopted for diluting acids ?

- (1) Acid should be added to water slowly.
- (2) Water should be added to acid slowly.
- (3) Water and acid should be mixed simultaneously.
- (4) Alcohol should be added to acid before adding water to it.

Q 75 Which of the following statements are correct and can be inferred from the following table :

Substance	pH scale
A	1.5
B	7.2
C	4.5
D	12.5
E	9.2

- I. A is more acidic than C
- II. B is more basic than D
- III. D is the most basic substance
- IV. C is more basic than E

- (1) I and III
- (2) II and III
- (3) III and IV
- (4) I and IV

Q 76 Match the chemical formula of the compound correctly with its use :

Compound	Use
a. $\text{CaOCl}_2$	i. Soap and detergent
b. $\text{NaHCO}_3$	ii. Putting casts on bones
c. $\text{Na}_2\text{CO}_3$	iii. Disinfecting water
d. $\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$	iv. Used in antacids
e. $\text{NaOH}$	v. Removing permanent hardness of water

- (1) a - ii, b - i, c - v, d - iii, e - iv
- (2) a - iii, b - iv, c - v, d - ii, e - i
- (3) a - v, b - iv, c - i, d - iii, e - ii
- (4) a - iii, b - v, c - iv, d - ii, e - i

Q 77 Which of the following chemical reactions represents the following statement ?

“Limestone decomposes on heating to give quick lime.”

- (1)  $\text{CaCO}_3 (\text{s}) \xrightarrow{\text{Heat}} \text{Ca(OH)}_2 (\text{s}) + \text{CO}_2 (\text{g}) + \text{H}_2 (\text{g})$
- (2)  $\text{CaCO}_3 (\text{s}) \xrightarrow{\text{Heat}} \text{CaO} (\text{s}) + \text{CO}_2 (\text{g})$
- (3)  $\text{Ca(OH)}_2 (\text{s}) \xrightarrow{\text{Heat}} \text{CaO} (\text{s}) + \text{H}_2\text{O} (\text{l}) + \text{CO}_2 (\text{g})$
- (4)  $\text{Ca(OH)}_2 (\text{s}) \xrightarrow{\text{Heat}} \text{CaCO}_3 (\text{s}) + \text{H}_2\text{O} (\text{l})$

Q 78 Identify the following metals on the basis of their reaction with water :

- A. Reacts violently with cold water
- B. Floats on water on reacting with water
- C. Reacts with hot water only
- D. Reacts with steam only
- E. Does not react with water at all

A, B, C, D, E respectively are

- (1) Potassium, Sodium, Magnesium, Copper, Silver
- (2) Potassium, Calcium, Magnesium, Aluminium, Copper
- (3) Sodium, Magnesium, Aluminium, Zinc, Silver
- (4) Magnesium, Calcium, Copper, Zinc, Silver

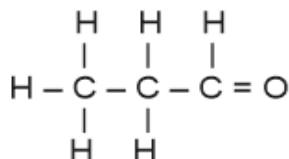
Q 79 Which of the following is an olfactory indicator ?

- (1) Phenolphthalein
- (2) Litmus solution
- (3) Vanilla essence
- (4) Methyl orange

Q 80 Which of the following reaction produces 'Ethene' ?

- (1)  $\text{CH}_3 \text{CH}_2 \text{OH} + \text{Na} \longrightarrow$
- (2)  $\text{CH}_3 \text{CH}_2 \text{OH} \xrightarrow[\text{H}_2 \text{SO}_4]{\text{hot conc.}}$
- (3)  $\text{CH}_3 \text{CH}_2 \text{OH} + \text{CH}_3 \text{COOH} \xrightarrow{\text{acid}}$
- (4)  $\text{CH}_3 \text{CH}_2 \text{OH} \xrightarrow[\text{Heat}]{\text{alkaline KMnO}_4}$

Q 81 The name of the compound represented by the following formula is :



- (1) Propanol
- (2) Propanone
- (3) Propanal
- (4) Propanoic acid



Q Which of the following hydrocarbons will undergo addition reaction ?

82

$C_2H_6, C_3H_8, C_3H_6, C_2H_2, CH_4$

- (1)  $C_2H_6, C_3H_8, C_2H_2$  only
- (2)  $C_3H_8, CH_4, C_2H_6$  only
- (3)  $C_3H_6, C_2H_2$  only
- (4)  $C_2H_6, C_2H_2, CH_4$  only

Q Which of the following statements is **not correct** regarding properties of elements from left to right across the periods of Periodic Table ?

83

- (1) The elements become less metallic
- (2) The number of valence electrons increases
- (3) The atoms lose their electrons more easily
- (4) The oxides become more acidic

Q According to Modern Periodic Table, an Element A is present in Group 1, Period 3 and Element B is present in Group 17, Period 3. A reacts with B to form compound C. The chemical formula of compound C is

84

- (1)  $A_2 B$
- (2)  $A B$
- (3)  $A_2 B_3$
- (4)  $A B_3$

Q Read the following statements carefully and select the correct option :

85

*Assertion (A) :*

Atomic radius decreases on moving from left to right along a period.

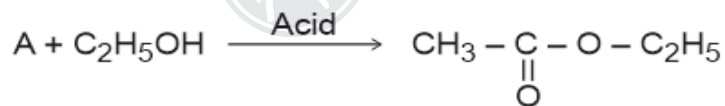
*Reason (R) :*

Increase in nuclear charge tends to pull the electrons closer.

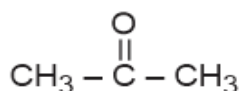
- (1) Both A and R are true and R is correct explanation of A.
- (2) Both A and R are true but R is not the correct explanation of A.
- (3) A is true but R is false.
- (4) Both A and R are false.

Q Identify 'A' in the following reaction :

86



- (1)  $CH_3CHO$
- (2)  $CH_3COOH$
- (3)  $C_2H_5COOH$
- (4)



Q Silver articles become black after some time when exposed to air. This is due to formation of

87

- (1) Silver carbonate
- (2) Silver oxide
- (3) Silver sulphide
- (4) Silver nitrate

Q 88 A ores are converted into oxides by heating strongly in the B of air. This process is known as C.

A, B, C respectively are

- (1) Carbonate, absence, roasting
- (2) Carbonate, absence, calcination
- (3) Sulphide, presence, roasting
- (4) Sulphide, absence, calcination

Q 89  $x \text{MnO}_2 + y \text{Al} \longrightarrow x \text{Mn} + z \text{Al}_2\text{O}_3$

For the above reaction to be balanced, the values of x, y, z are respectively

- (1) 4, 2, 2
- (2) 3, 4, 2
- (3) 2, 3, 2
- (4) 2, 2, 3

Q 90 Isotopes differ in their

- (1) Chemical structure
- (2) Atomic number
- (3) Number of neutrons
- (4) Physical and chemical properties

Q 91 A plant cell is likely to swell up on putting it in a solution which is \_\_\_\_\_ to it.

- (1) hypotonic
- (2) isotonic
- (3) hypertonic
- (4) saturated

Q 92 The main reason for viruses not showing any characteristics of life until they enter a living body is absence of

- (1) protoplast
- (2) nucleic acids
- (3) organized structure
- (4) mutations

Q 93 Which of the following cell organelle helps in waste disposal in an animal cell ?

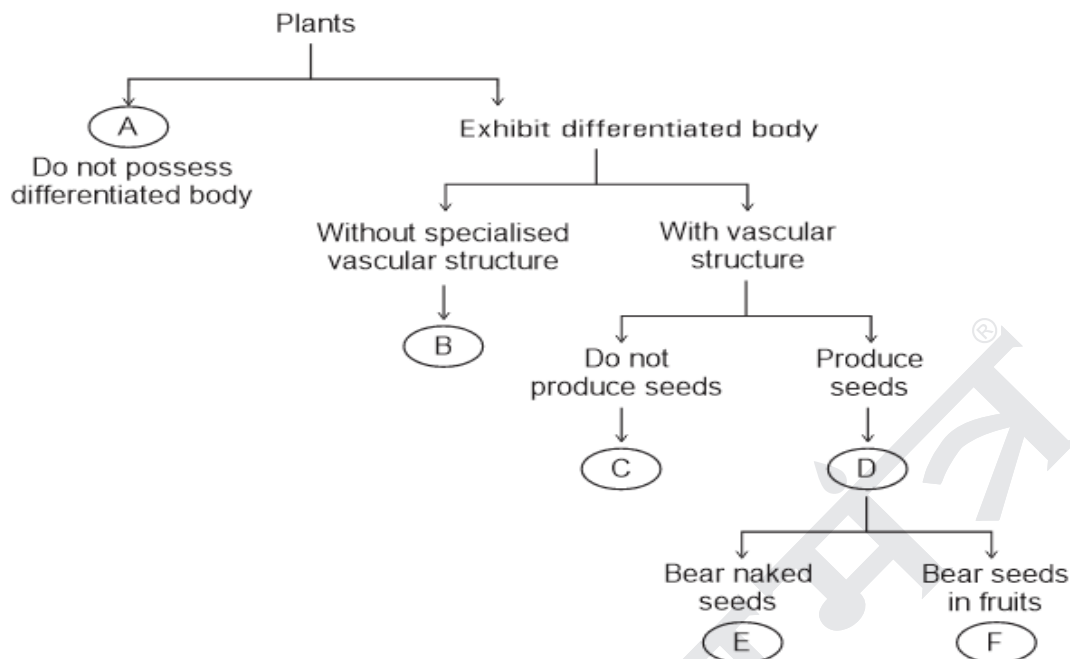
- (1) Vacuoles
- (2) Lysosomes
- (3) Plastids
- (4) Golgi bodies

Q 94 Which type of Epithelial tissue is present in respiratory tract of human beings ?

- (1) Simple squamous
- (2) Columnar
- (3) Stratified squamous
- (4) Cuboidal

Q 95





A, B, C, D, E, F respectively are

- (1) Thallophyta, Bryophyta, Phanerogams, Pteridophyta, Gymnosperms, Angiosperms
- (2) Thallophyta, Bryophyta, Pteridophyta, Phanerogams, Gymnosperms, Angiosperms
- (3) Bryophyta, Pteridophyta, Thallophyta, Gymnosperms, Phanerogams, Angiosperms,
- (4) Pteridophyta, Bryophyta, Thallophyta, Phanerogams, Gymnosperms, Angiosperms

Q 96 A is an exocrine as well as an endocrine gland in human beings. It secretes B which contains enzymes to aid digestion of food in the small intestine.

A and B respectively are

- (1) Liver, Bile Juice
- (2) Pancreas, Bile Juice
- (3) Pancreas, Pancreatic Juice
- (4) Liver, Pancreatic Juice

Q 97 Fraternal twins in human beings are formed when

- (1) One egg is fertilized by two sperms
- (2) Two eggs are fertilized by one sperm
- (3) Two eggs are fertilized by two sperms
- (4) One egg is fertilized by one sperm

Q 98 Which of the following statements is true regarding the cells in a dog and an elephant ?

- (1) The size of cells in an elephant are larger than that in a dog
- (2) The number of cells in an elephant are more than that in a dog
- (3) The shape of cells in an elephant are different than that in a dog
- (4) The variety of cells in an elephant are different than that in a dog

Q 99 Which of the following are characteristic features of group Arthropoda ?

- A. Bilateral symmetry
- B. Open circulatory system

- C. Spiny skin  
D. Backbone  
(1) A and B only  
(2) A and C only  
(3) B and C only  
(4) B and D only

Q 100 Which set from the following is the odd one on the basis of classification of animals ?

- (1) Frogs, Toad, Salamander  
(2) Snake, Turtle, Lizard  
(3) Frog, Lizard, Crocodile  
(4) Butterfly, Spider, Scorpion

Q 101 Identify the group of animals that

- A. have three-chambered heart  
B. respire through gills or lungs  
C. lay eggs in water  
(1) Pisces  
(2) Amphibia  
(3) Reptilia  
(4) Aves

Q 102 Growing two or more crops simultaneously on the same field in a definite pattern is called

- (1) Mixed cropping  
(2) Inter-cropping  
(3) Crop rotation  
(4) Field fallow

Q 103 Which of the following does **not** sublime ?

- (1) Camphor  
(2) Dry ice  
(3) Ammonium acetate  
(4) Ammonium chloride

Q 104 Transpiration helps in absorption of water and minerals by the roots through

- (1) creating suction  
(2) temperature regulation  
(3) evaporation  
(4) osmosis

Q 105 Choose the correct sequence that represents a human excretory system :

- (1) Kidneys  $\longrightarrow$  Ureter  $\longrightarrow$  Urethra  $\longrightarrow$  Urinary bladder  
(2) Ureter  $\longrightarrow$  Kidneys  $\longrightarrow$  Urinary bladder  $\longrightarrow$  Urethra  
(3) Kidneys  $\longrightarrow$  Ureter  $\longrightarrow$  Urinary bladder  $\longrightarrow$  Urethra  
(4) Ureter  $\longrightarrow$  Urinary bladder  $\longrightarrow$  Kidneys  $\longrightarrow$  Urethra

Q Which of the following statements are true regarding arteries in a human circulatory system ?



- 106
- All arteries carry pure blood
  - Arteries have valves
  - Arteries have thick walls
  - Arteries carry blood from heart to other organs
- A and B only
  - B and C only
  - C and D only
  - A and C only

Q Match the following correctly :

107

<i>Plant Hormone</i>	<i>Function</i>
a. Auxins	i. Growth of stem
b. Gibberellins	ii. Promotes cell division
c. Cytokinins	iii. Inhibits growth
d. Abscisic acid	iv. Movement of shoot

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

Q Which of the following statements is true ?

108

- Asexual reproduction takes place only in plants
- Angiosperms reproduce both by sexual and asexual reproduction
- Sexual reproduction takes place only in bisexual flowers
- Asexual reproduction takes place only in unicellular animals

Q Which of the following statements is/are true ?

109

*Statement A :*

Variations arising during the process of reproduction can be inherited.

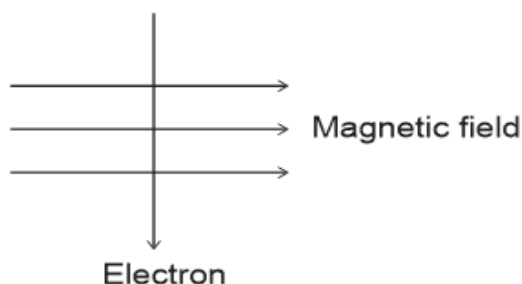
*Statement B :*

Changes in the non-reproductive tissues caused by environmental factors are not inheritable.

- Statement A is true and Statement B is false
- Statement B is true and Statement A is false
- Both Statement A and Statement B are true
- Both Statement A and Statement B are false

Q An electron enters a magnetic field at right angles as shown in the figure.

110



The direction of force acting on the electron will be

- to the right