UGC NET Dec 2020 and June 2021 29th November Morning Shift

1.) Study the given table carefully and answer the questions that follow:-

Train Number	Source Station	Destination Station	Distance (km)	Speed (km/h)	Fare per person (Rs)	Total seats	Reserved seats
1001	A	P	1200	130	3000	680	400
1002	B	Q	1080	160	3600	870	550
1003	C	R	1280	155	2800	650	350
1004	D	S	1250	130	2900	980	620
1005	E	T	1180	125	3200	780	520

Which train has minimum per km cost?

(A) 1001

(B) 1003

(C) 1004

(D) 1005

2.) Study the given table carefully and answer the questions that follow:-

Train Number	Source Station	Destination Station	Distance (km)	Speed (km/h)	Fare per person (Rs)	Total seats	Reserved seats
1001	A	P	1200	130	3000	680	400
1002	B	Q	1080	160	3600	870	550
1003	C	R	1280	155	2800	650	350
1004	D	S	1250	130	2900	980	620
1005	E	T	1180	125	3200	780	520

Which train will take maximum time to reach the destination?

(A) 1001

(B) 1003

(C) 1004

(D) 1005

3.) Study the given table carefully and answer the questions that follow:-

Train Number	Source Station	Destination Station	Distance (km)	Speed (km/h)	Fare per person (Rs)	Total seats	Reserved seats
1001	A	P	1200	130	3000	680	400
1002	B	Q	1080	160	3600	870	550
1003	C	R	1280	155	2800	650	350
1004	D	S	1250	130	2900	980	620
1005	E	T	1180	125	3200	780	520

Which train has minimum number of vacant seats?

(A) 1001

(B) 1002

(C) 1003

(D) 1005

4.) Study the given table carefully and answer the questions that follow:-

Train Number	Source Station	Destination Station	Distance (km)	Speed (km/h)	Fare per person (Rs)	Total seats	Reserved seats
1001	A	P	1200	130	3000	680	400
1002	B	Q	1080	160	3600	870	550
1003	C	R	1280	155	2800	650	350
1004	D	S	1250	130	2900	980	620
1005	E	T	1180	125	3200	780	520

What is the average of the number of vacant seats for all trains?
(A) 302
(B) 304
(C) 306
(D) 308

5.) Study the given table carefully and answer the questions that follow:-

Train Number	Source Station	Destination Station	Distance (km)	Speed (km/h)	Fare per person (Rs)	Total seats	Reserved seats
1001	A	P	1200	130	3000	680	400
1002	B	Q	1080	160	3600	870	550
1003	C	R	1280	155	2800	650	350
1004	D	S	1250	130	2900	980	620
1005	E	T	1180	125	3200	780	520

What is the time difference between the train which takes the maximum duration and the train which takes the minimum duration?
(A) 2.78
(B) 2.64
(C) 2.86
(D) 2.68

6.) The name of the MOOC platform developed by IIT Kanpur is
(A) SWAYAM
(B) Causera
(C) mooKIT (MOOKIT)
(D) MOOCK

7.) In the role of a test constructor, how should a teacher proceed?
A. Prepare test items that match the instructional objectives
B. List the major course or unit objectives
C. Prepare a table of specifications
D. Specify the course or unit content
E. Discard unrealistic objectives
Choose the correct answer from the options given below:-
(A) A, B, C, D, E
(B) B, E, D, C, A

(C) C, A, E, D, B
(D) D, B, E, C, A

8.) Given below are two statements:-
Statement I: The brain continues to develop throughout childhood and adolescence.
Statement II: The logical and goal-directed actions begin in the sensorimotor period.
In light of the above statements, choose the most appropriate answer from the options given below:
(A) Both Statement I and Statement II are correct
(B) Both Statement I and Statement II are incorrect
(C) Statement I is correct but Statement II is incorrect
(D) Statement I is incorrect but Statement II is correct

9.) An undergraduate degree with Honours in a discipline may be awarded if a student completes:-
A. 14 core papers in that discipline
B. 2 Ability Enhancement Compulsory Courses
C. 2 Research paper published in any UGC CARE listed journal
D. Minimum 2 Skill Enhancement courses
E. 4 papers each from a list of discipline specific elective and generic elective papers
Choose the correct answer from the options given below:
(A) A, B, C and D only
(B) A, B, D and E only
(C) B, C, D and E only
(D) A, C, D and E only

10.) Match List I with List II:-

List I	*List II*
Government of India Projects	Purpose
A. Shodhganga	I. Expert database + Researcher network
B. SWAYAM PRABHA	II. Thesis database
C. Vidwan	III. Online content delivery platform
D. SAKSHAT	IV. DTH educational channel

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

11.) The exercise of reviewing the relevant literature is most closely related for which one of the following?
(A) Formulating research problems
(B) In drawing a sample for the study
(C) For analysing quantitative data
(D) Generalization of the finding

12.) Which among the following is an example of descriptive statistic?
(A) Chi-square
(B) Regression
(C) Standard deviation
(D) t-statistic

13.) Which among the following are the source of threat to external validity?
A. Sample characteristics
B. Novelty/uniqueness of stimulus
C. Improper manipulation of I.V.
D. Lack of motivation on the part of the participants
E. Reactivity of the assessments
Choose the correct answer from the options given below:
(A) A, B and D only
(B) B, D and E only
(C) C, D and E only
(D) A, B and E only

14.) Given below are two statements:-
Statement I: Sample sizes for qualitative research vary by technique but are generally small. Statement II: Qualitative research involves non-probability sampling.
In light of the above statements, choose the correct answer from the options given below:
(A) Both Statement I and Statement II are true
(B) Both Statement I and Statement II are false
(C) Statement I is true but Statement II is false
(D) Statement I is false but Statement II is true

15.) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R:-
Assertion A: Student's t-statistic is a robust statistic.
Reason R: Student's t-statistic can yield accurate analysis of data, even if some of the assumptions of parametric statistics are violated.
In light of the above statements, choose the correct answer from the options given below
(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) A is true but R is false
(D) A is false but R is true

16.) In communication, a shrug of shoulders indicates:-
(A) Responsibility
(B) Honesty
(C) Interest
(D) Indifference

17.) Which one of the following is a strategy to overcome communication barriers

(A) Setting of ground rules
(B) Aggression
(C) Advance technology provision
(D) Use of jargon

18.) The communication between two persons through letters is an instance of:-
(A) Intrapersonal verbal communication
(B) Intrapersonal nonverbal communication
(C) Interpersonal verbal communication
(D) Interpersonal nonverbal communication

19.) Which one of the following is an example of form of New Media?
(A) Newspapers
(B) TV
(C) Radio
(D) Instagram

20.) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R:-
Assertion A: In classroom communication, Socratic questioning is one of the effective strategies to promote understanding.
Reason R: Feedback through student evaluation of teachers enhances the quality of classroom communication.
In light of the above statements, choose the correct answer from the options given below5:
(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) A is true but R is false
(D) A is false but R is true

21.) Given below are two statements:-
Statement I: At 8.55% rate of simple interest, a certain sum will be doubled in 12 years.
Statement II: In 3 years ₹1000 will become ₹1331 at compound interest rate of 10% per annum.
In light of the above statements, choose the correct answer from the options given below:
(A) Both Statement I and Statement II are true
(B) Both Statement I and Statement II are false
(C) Statement I is true but Statement II is false
(D) Statement I is false but Statement II is true

22.) Which of the following statements are correct?
A. The sum of three consecutive multiples of 3 is 7(B) The largest number is 27.
B. A number when multiplied by 13 is increased by 180. The number is 1(C)
C. The average of first 20 multiples of 7 is 73.5.
Choose the correct answer from the options given below:
(A) A and B only
(B) B and C only
(C) A and C only

(D) A only

23.) When a sum of money was distributed to 12 boys instead of 16 boys, each boy got ₹40 more. What was the sum?
(A) 1290
(B) 1920
(C) 480
(D) 840

24.) The ages of Lokendra and Dharmendra are in the ratio 6:5 and the sum of their ages is 44 years. What will be the ratio of their ages after 4 years?
(A) 8:7
(B) 7:8
(C) 7:6
(D) 9:7

25.) In the series 9, 18, 36....
What will be 12^{th} term?
(A) 18556
(B) 18652
(C) 18232
(D) 18432

26.) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R:-
Assertion A: Denotation cannot be used to define words that have an empty extension
Reason R: Although connotation determines denotation, denotation does not determine connotation
In light of the above statements, choose the most appropriate answer from the options given below:
(A) Both A and R are correct and R is the correct explanation of A
(B) Both A and R are correct but R is NOT the correct explanation of A
(C) A is correct but R is not correct
(D) A is not correct but R is correct

27.) Identify the fallacy committed in the argument:-
All cats are animals.
All dogs are animals.
Therefore, all dogs are cats.
(A) Fallacy of Four Terms
(B) Fallacy of the Undistributed Middle Term
(C) Fallacy of the Exclusive Premises
(D) Existential Fallacy

28.) Identify the fallacy committed in the following argument:-
"American Indians are disappearing.
That man is an American Indian.
Therefore, that man is disappearing."

(A) Fallacy of Composition
(B) Fallacy of Division
(C) Fallacy of Accident
(D) Fallacy of Converse Accident

29.) The condition that there should be an absence of contradiction in the relation of the objects denoted in the combination of words, for the sentence to be significant is known as which one of the following
(A) Ākārkṣā
(B) Yogyatā
(C) Sannidhi
(D) Tātparya

30.) Given below are two statements:-
Statement I: A vyapti between two terms of equal extension is called Samavyapti.
Statement II: The relation between fire and smoke is that of Samavyapti.
In light of the above statements, choose the correct answer from the options given below:
(A) Both Statement I and Statement II are true
(B) Both Statement I and Statement II are false
(C) Statement I is true but Statement II is false
(D) Statement I is false but Statement II is true

31.) The World Wide Web (WWW) is:-
(A) A massive network of networks which are made up of various computers
(B) The Internet makes use of TCP/IP protocol
(C) A company which allows a user to connect to the Internet
(D) A collection of multimedia web pages and other documents which are stored on websites

32.) Hypertext Transfer Protocol (HTTP) is:-
(A) Transferring file from one computer to another
(B) A text-based protocol used when sending emails
(C) Protocol used to find an IP address
(D) Fetching an HTML document from a web server

33.) Given below are two statements regarding phishing: -
Statement I: It is a program code that can replicate itself with the intention of deleting files. Statement II: It can be filtered but at the Internet Service Provider's (ISP) level.
In light of the above statements, choose the correct answer from the options given below:
(A) Both Statement I and Statement II are true
(B) Both Statement I and Statement II are false
(C) Statement I is true but Statement II is false
(D) Statement I is false but Statement II is true

34.) Which of the following statements regarding Intranets are correct?
A. The Intranet can be accessed from anywhere by anyone
B. The Intranet has public access
C. They are more secure than internet

D. In Intranet, it is possible to control external links
Choose the correct answer from the options given below:8
(A) A, B and C only
(B) C and D only
(C) A, C and D only
(D) B and C only

35.) Match List I with List II:-

List I	*List II*
Name of Memory Size	Number of bits
A. MB (Megabyte)	I. 2^{30}
B. GB (Gigabyte)	II. 2^{50}
C. TB (Terabyte)	III. 2^{20}
D. PB (Petabyte)	IV. 2^{40}

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

36.) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R:-
Assertion A: The in-situ passive soil remediation process is the easiest to implement and the least expensive
Reason R: It relies upon several natural processes to destroy the contaminants
In light of the above statements, choose the most appropriate answer from the options given below:
(A) Both A and R are correct and R is the correct explanation of A
(B) Both A and R are correct but R is NOT the correct explanation of A
(C) A is correct but R is not correct
(D) A is not correct but R is correct

37.) Dewatering of sewage sludge can be achieved by:-
A. Gravity thickening
B. Mechanical stirring
C. Osmosis
D. Floatation
E. Screening
Choose the correct answer from the options given below:
(A) A, B and D only
(B) B, C and E only
(C) A, C and D only
(D) C, D and E only

38.) Match List I with List II:-

List I	*List II*
Acts	Year of Inception

A. Water Prevention and Control Act	I. 1986
B. Air Prevention and Control Act	II. 1974
C. Environment Protection Act	III. 1987
D. The Factories Amendment Act	IV. 1981

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

39.) Which one of the following isotopes of Uranium is fissile material and can be used for nuclear reactions?
(A) U-234/U-234
(B) U-235/U-235
(C) U-236/U-236
(D) U-238/U-238

40.) Rain is termed as acid rain when its pH value is:-
(A) 1-3/1 - 3
(B) Less than 5.6/5.6
(C) 5.6-7.0/5.6 - 7.0
(D) More than 7/7

41.) Who chaired the first committee constituted by Government of India on Women's education after independence?
(A) Dr. Radhakrishnan
(B) Dr. Durga bai Deshmukh
(C) Hansa Mehta
(D) Kamala Chaudhary

42.) Disruptive technologies in education mean:-
(A) New technologies that completely change the way things are done in education
(B) Prevention of technology in education
(C) Use of Artificial Intelligence
(D) Obsolete technology

43.) Given below are two statements:-
Statement I: "The improvement of Secondary Education was an essential foundation for the improvement of Secondary Education", was the view held by the Calcutta University Commission Statement II: The Calcutta University Commission recommended the use of mother tongue in the intermediate colleges for teaching all the subjects
In light of the above statements, choose the most appropriate answer from the options given below:
(A) Both Statement I and Statement II are correct
(B) Both Statement I and Statement II are incorrect
(C) Statement I is correct but Statement II is incorrect
(D) Statement I is incorrect but Statement II is correct

44.) The presence of which of the following points poses challenge for higher education system as per NEP-2020?
A. Large affiliating universities
B. Ineffective regulatory system
C. Limited teacher and institutional autonomy
D. Emphasis on research10
E. Efficient merit based career management and progression of faculty members
Choose the correct answer from the options given below:
(A) A, B and C only
(B) B, C and D only
(C) C, D and E only
(D) A, D and E only

45.) Match List I with List II:-

List I	*List II*
Schools of Philosophy	Propounders
A. Samkhya	I. Gautam
B. Nyaya	II. Kanada
C. Vaisheshika	III. Kapila
D. Purvamimansa	IV. Jamni

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

46.) Read the passage carefully and answer the questions that follows:-
Throughout history, people have turned to mythology, folklore and religion for explanations of life's origins, and to this day, there are many who firmly believe what has been written in religious books and passed down from generation to generation. With the advent of the Age of Reason in the 18 century and scientific advances in the 19 century, however, the quest for deeper knowledge could be satisfied by digging for empirical evidence and putting it to empirical test. In 1865, Gregor Mendel, an Austrian monk who had been experimenting for eight years with garden peas, announced to the scientific community that specific characteristics, or traits, were transmitted from parent to offspring in an organized and predictable manner. Along with Charles Darwin's Theory of Natural Selection and evolution, as stated in his 1859 publication, 'On the Origin of Species'. Mendel's work set the stage for the science of genetics to become the prominent explanation of where life comes from. With the help of improved microscopes, scientists discovered the existence and structure of cells containing chromosomes. In the early 1900s, experiments with fruit flies revealed that chromosomes located in the cell's nucleus were made of genes. The Drosophila, commonly called fruit fly, was the first living organism to be genetically mapped. In 1944, Oswald Avery identified genes in bacteria as genetic messengers made of DNA. In 1953, th th10 2) James Watson and Francis Crick discovered the double-helix structure of DNA, for which they received the Nobel Prize nine years later. With each ground breaking discovery, molecular biologists were able to form an even clearer picture of the mechanics of life. To crack the code of life, prominent scientists proposed compiling a comprehensive genetic map of a human being.

What is the meaning of 'empirical evidence'?
(A) based on observation and capable of being verified
(B) based on received knowledge
(C) based on knowledge from historical empires
(D) based on mythology and folklore

47.) Read the passage carefully and answer the questions that follows:-
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According to the author, what were the initial sources of information for understanding the beginning of life?
(A) Scientific discoveries
(B) Folk knowledge and scriptures
(C) Imaginative literature
(D) Discoveries of Mendel and Darwin

48.) Read the passage carefully and answer the questions that follows:-
Throughout history, people have turned to mythology, folklore and religion for explanations of life's origins, and to this day, there are many who firmly believe what has been written in religious books and passed down from generation to generation. With the advent of the Age of Reason in the 18th century and scientific advances in the 19th century, however, the quest for deeper knowledge could be satisfied by digging for empirical evidence and putting it to empirical test. In 1865, Gregor Mendel, an Austrian monk who had been experimenting for eight years with garden peas, announced to the scientific community that specific characteristics, or traits, were transmitted from parent to offspring in an organized and predictable manner. Along with Charles Darwin's Theory of Natural Selection and evolution, as stated in his 1859 publication, 'On the Origin of Species'. Mendel's work set the stage for the science of genetics to become the prominent explanation of where life comes from. With the help of improved microscopes, scientists discovered the existence and structure of cells containing chromosomes. In the early 1900s, experiments with fruit flies revealed that chromosomes located in the cell's nucleus were made of genes. The Drosophila, commonly called fruit fly, was the first living organism to be genetically mapped. In 1944,

Oswald Avery identified genes in bacteria as genetic messengers made of DNA. In 1953, James Watson and Francis Crick discovered the double-helix structure of DNA, for which they received the Nobel Prize nine years later. With each ground breaking discovery, molecular biologists were able to form an even clearer picture of the mechanics of life. To crack the code of life, prominent scientists proposed compiling a comprehensive genetic map of a human being.
What is the theme of this passage?
(A) Origin and mechanics of life
(B) Scientific knowledge from ancient times
(C) Structure of cell
(D) Belief versus science

49.) Read the passage carefully and answer the questions that follows:-
Throughout history, people have turned to mythology, folklore and religion for explanations of life's origins, and to this day, there are many who firmly believe what has been written in religious books and passed down from generation to generation. With the advent of the Age of Reason in the 18th century and scientific advances in the 19th century, however, the quest for deeper knowledge could be satisfied by digging for empirical evidence and putting it to empirical test. In 1865, Gregor Mendel, an Austrian monk who had been experimenting for eight years with garden peas, announced to the scientific community that specific characteristics, or traits, were transmitted from parent to offspring in an organized and predictable manner. Along with Charles Darwin's Theory of Natural Selection and evolution, as stated in his 1859 publication, 'On the Origin of Species'. Mendel's work set the stage for the science of genetics to become the prominent explanation of where life comes from. With the help of improved microscopes, scientists discovered the existence and structure of cells containing chromosomes. In the early 1900s, experiments with fruit flies revealed that chromosomes located in the cell's nucleus were made of genes. The Drosophila, commonly called fruit fly, was the first living organism to be genetically mapped. In 1944, Oswald Avery identified genes in bacteria as genetic messengers made of DNA. In 1953, James Watson and Francis Crick discovered the double-helix structure of DNA, for which they received the Nobel Prize nine years later. With each ground breaking discovery, molecular biologists were able to form an even clearer picture of the mechanics of life. To crack the code of life, prominent scientists proposed compiling a comprehensive genetic map of a human being.
Whose scientific contributions inaugurated the science of genetics?
(A) Charles Darwin
(B) Gregor Mendel
(C) Gregor Mendel and Charles Darwin
(D) James Watson and Francis Crick

50.) Read the passage carefully and answer the questions that follows:-
Throughout history, people have turned to mythology, folklore and religion for explanations of life's origins, and to this day, there are many who firmly believe what has been written in religious books and passed down from generation to generation. With the advent of the Age of Reason in the 18th century and scientific advances in the 19th century, however, the quest for deeper knowledge could be satisfied by digging for empirical evidence and putting it to empirical test. In 1865, Gregor Mendel, an Austrian monk who had been experimenting for eight years with garden peas, announced to the scientific community that specific characteristics, or traits, were transmitted from parent to offspring in an organized and predictable manner. Along with Charles Darwin's Theory of Natural Selection and evolution, as stated in his 1859 publication, 'On the Origin of Species'. Mendel's work set the stage for the science of genetics to become

the prominent explanation of where life comes from. With the help of improved microscopes, scientists discovered the existence and structure of cells containing chromosomes. In the early 1900s, experiments with fruit flies revealed that chromosomes located in the cell's nucleus were made of genes. The Drosophila, commonly called fruit fly, was the first living organism to be genetically mapped. In 1944, Oswald Avery identified genes in bacteria as genetic messengers made of DNA. In 1953, James Watson and Francis Crick discovered the double-helix structure of DNA, for which they received the Nobel Prize nine years later. With each ground breaking discovery, molecular biologists were able to form an even clearer picture of the mechanics of life. To crack the code of life, prominent scientists proposed compiling a comprehensive genetic map of a human being.

What helped molecular biologists to form a clearer picture of the mechanisms of life?

(A) Knowledge from myths
(B) Incentives like Nobel Prize
(C) Evidence based discoveries
(D) Technical limitations