

UGC NET PAPER-1

GENERAL APTITUDE

SOLVED PAPER JUNE 2023

Time Allotted: 1 Hour and 15 Minutes

Maximum Marks: 100

Important Instructions:-

1. Each question carries 2 marks.
2. This paper consists of fifty (50) multiple-choice type of questions.
3. Each item has four alternative options marked (a), (b), (c) and (d). You have to select the correct option.
Example: where (c) is the correct option then you will select it like this (a) (b) (c) (d) .
4. Use of any calculator or log table etc., is prohibited.
5. There is no negative marking for incorrect answers.

Direction for Questions (1-5):

The following table shows Net National Income (in Lac Crore) and Per capita Net National Income (in thousand) of India during the 5 year period from the year 2015-16 to 2019-20. Based on the data in the table, answer the questions that follow:

Year	Net National Income (in Lac, Crore rupees)	Per Capita Net National Income (in thousand rupees)
2015-16	122	95
2016-17	136	105
2017-18	151	115
2018-19	167	126
2019-20	177	132

- Q.1.** In which year the percentage (%) increase in the Net National Income over the previous year was maximum?
(a) 2019-20 (c) 2017-18
(b) 2018-19 (d) 2016-17
- Q.2.** Assuming that the per capita Net national Income grows beyond the year 2019-20 at the average annual rate of increase (%) of the period (2015-16 to 2019-20), what will be its value (in thousand ₹) at the end of the year 2020-21?
(a) 135.68 (c) 140.17
(b) 138.35 (d) 143.34
- Q.3.** What is the average per capita Net National Income (in thousand rupees) per year?
(a) 103.25 (c) 110.3
(b) 114.6 (d) 108.6
- Q.4.** With reference to the year 2015-16, the percentage growth in the population of India by the year 2019-20 is

- (a) ~ 6.2% (c) ~ 7.1%
(b) ~ 4.4% (d) ~ 3.1%

- Q.5.** What is the percentage increase (%) in per capita Net National Income during 5 years (i.e 2015-16 to 2019-20)?

- (a) ~ 38.94% (c) ~ 30.61%
(b) ~ 48.24% (d) ~ 42.40%

- Q.6.** Given below are two statements:

Statement I: Internet is commonly used service on the World Wide Web.

Statement II: HTTP is the protocol that web browsers and web servers use to communicate with each other over the Internet.

In the 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.

- Q.7.** Negative communicators usually express

- (A) Verbal softness
(B) Optimism
(C) Pessimism
(D) Resentment
(E) Distrust

Choose the correct answer from the options given below:

- (a) A, B & C only (c) C, D & E only
(b) B, C & D only (d) A, B & E only

- Q.8.** Given below are two statements:

Statement I: The NEP 2020 recommends the establishment of an academic bank of credit to facilitate the transfer of credits between the institutions.

Statement II: One of the objectives of NEP 2020 is to increase the number of multidisciplinary institutions in the country.

In the 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.

- Q.9.** Identify the correct order of the term A-E given below that completes the paragraph describing a method of operation for a keyboard.

A computer keyboard has a key matrix underneath the keys when a key is pressed, it presses a switch that completes a _____. This allows _____ to follow. The location of the key pressed is _____. The location of the key pressed is compared to a _____ map to find the _____ value for the key that has been pressed.

- (A) Binary
- (B) Calculated
- (C) Character
- (D) Circuit
- (E) Current

Choose the correct answer from the options given below:

- (a) E, D, B, C & A
- (b) D, E, B, C & A
- (c) C, D, B, E & A
- (d) A, E, B, C & D

- Q.10.** When inference is based on Causation but on Uniformity of co-existence as in the case of inferring cloven hoofs of an animal by its horns; it is called

- (a) Purvatat Anumana
- (b) Sesavat Anumana
- (c) Samanyatodrsta
- (d) Paksadharmata

- Q.11.** Which of the following are not the characteristic of teacher-centered methods of teaching?

- (A) Students are passive learners
- (B) Teachers act as facilitator for learning
- (C) Teacher directs learning activities
- (D) Learning is based on collaboration between students
- (E) Learning is based on student interest

Choose the correct answer from the options given below:

- (a) A, C & D only
- (b) B & E only
- (c) B, D & E only
- (d) A & C only

- Q.12.** From the view point communicators language and other symbolic systems are

- (a) Inactive tools
- (b) Economic targets
- (c) Social targets
- (d) Cultural fantasies

- Q.13.** A researcher obtains the following p-values for sample correlation coefficients of different samples. Which of these can be considered significant at 1% level of significance?

- (A) 0.004
- (B) 0.99
- (C) 0.995
- (D) 0.001
- (E) 0.1

Choose the correct answer from the options given below:

- (a) B & C only
- (b) B, D & E only
- (c) A, & D only
- (d) B, C & E only

- Q.14.** Which among the following would be the ethical issues in a research study that involves participation of human subjects?

- (A) Lack of informed consent
- (B) Physical and psychological harm
- (C) Excessive inducements
- (D) Debriefing

Choose the correct answer from the options given below:

- (a) A, B & C only
- (b) B, C & D only
- (c) A, C & D only
- (d) A, B, C & D

- Q.15.** Given below are two statements:

Statement I: A learner's cultural background has no impact on his/her learning experience.

Statement II: Gender is not a strong predictor of academic achievement.

In the 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.

- Q.16.** Which of the following is a tool used for creating and sharing online learning games?

- (a) Mentimeter
- (b) Padlet
- (c) Kahoot
- (d) Zoom

- Q.17.** A smart home application that automates the controlling of lighting, temperature, entertainment system and appliances is an example of

- (a) Evolutionary computing
- (b) Nature-inspired computing
- (c) Bio-inspired computing
- (d) Ubiquitous computing

- Q.18.** The population of a village is 11000. If the number of children increase by 11% and the number of adults increase by 20%, the population becomes 12660. Find the population of children and adults separately in the village.

- (a) 7000, 4000
- (b) 4500, 6500
- (c) 6000, 5000
- (d) 5500, 5500

Q.19. Given below are two statements:

Statement I: University of Punjab at Lahore and University of Allahabad were established during colonial rule in India.

Statement II: The main reason of their establishment was the increasing demand in these places for higher education including 'Oriental' as well as modern European education. In the light of the above statements, choose the most appropriate 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.

Q.20. If information flows from the media to the opinion leaders and from them to the target audience, the process is known as

- (a) One-step-flow
- (b) Two-step-flow
- (c) Step-by-step flow
- (d) Multi- step flow

Q.21. In the light of Causation which of the following is incorrect?

- (A) Qualities of cause are accidental antecedents
- (B) The cause of the cause is not the cause.
- (C) The co-effects of a cause are themselves causally related
- (D) Eternal substance like space are not unconditional antecedents.

Choose the correct answer from the options given below:

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

Q.22. Given below are two statements:

Statement I: In a ratio scale, zero point is arbitrary

Statement II: The nominal scale allows ordering/ranking of data

In the light of the above statements, choose the most appropriate 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.

Q.23. Carbon monoxide (CO), an air pollutant when inhaled readily binds with the hemoglobin in the blood stream to form a life threatening compound known as

- (a) Hemoglobous
- (b) Carbo hemoglobin
- (c) Carbon mono hemoglobin
- (d) Carboxy hemoglobin

Q.24. In the beginning of the 20th century in 1902, there were important engineering colleges at

- (A) Roorkee
- (B) Madras
- (C) Kanpur
- (D) Sibpur (Bengal)
- (E) Poona

Choose the correct answer from the options given below:

- (a) A, B & D only
- (b) A, B, D & E only
- (c) A, B, C & E only
- (d) D only

Q.25. Given below are two statements:

Statement I: $(1011101)_2 = (135)_8$

Statement II: $(71)_8 = (111001)_2$

In the light of the above statements, choose the most appropriate 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.

Q.26. What number would replace question mark (?) in the series given below?

3, 8, 17, 32, 57, ?, 177

- (a) 100
- (b) 89
- (c) 95
- (d) 106

Q.27. What are the various salient features of formative evaluation?

- (A) It provides feed back to the teachers to use teaching strategies according to the needs of the learners
- (B) It helps learners to actively and continuously engage in learning
- (C) It helps in enhancing the learning abilities of the learner
- (D) It contributes to the overall grading and certification of the learner
- (E) It 'sums-up' how much a students has learnt over a period of time.

Choose the most appropriate answer from the options given below:

- (a) B, D & E only
- (b) C & E only
- (c) A, B & C only
- (d) A & D only

Q.28. Match List I with List II

LIST I (Three Approaches of Education)	LIST II (Disciplinary Aspects)
A. Teacher- centred	I. Shared, Participatory
B. Learner- centred	II. Imposed
C. Learning- centred	III. Self-controlled

Choose the most appropriate answer from the options given below:

- (a) A-III, B-II, C-I
- (b) A-I, B-II, C-III
- (c) A-II, B-I, C-III
- (d) A-II, B-III, C-I

- Q.29. Which one of the following is included while estimating Air Quality Index (AQI)?
- (a) N₂O Nitrous oxide
 (b) NO₂ Nitrogen dioxide
 (c) N₂O₃ Dinitrogen trioxide
 (d) N₂O₅ Dinitrogen pentoxide

- Q.30. Match List I with List II

LIST I (Fallacies)	LIST II (Description)
A. Bandwagon Argument	I. Arguer misrepresents an opponent's position.
B. Strawman Argument	II. Arguer assumes the point to be proven.
C. Red herring Argument	III. Arguer appeals to reader's or listener's desire to be accepted or valued
D. Begging the question	IV. Arguer tries to distract the attention of the audience by raising irrelevant issue

Choose the most appropriate answer from the options given below:

- (a) A-II, B-IV, C-I, D-III
 (b) A-IV, B-II, C-III, D-I
 (c) A-III, B-I, C-IV, D-II
 (d) A-I, B-III, C-II, D-IV
- Q.31. Which of the following is a chemical treatment in water treatment process?
- (a) Filtration (c) Coagulation
 (b) Sedimentation (d) Screening
- Q.32. There are fifteen successive percentage discounts given in a series of 2%, 4%, 6%, 8% _____ on an item. After how many such percentage discounts in succession will the effective discount be higher than 50%?
- (a) 7th (c) 8th
 (b) 10th (d) 6th
- Q.33. Identify the fallacy committed in the following argument:
- "There must be intelligent life on other planets. No one has proven that there isn't".
- (a) Appeal to ignorance
 (b) False alternative
 (c) Slippery slope
 (d) Hasty Generalization
- Q.34. 'Sound is eternal because it is produced' refers to which of the following Hetvabhasa?
- (a) Badhita (c) Asiddha
 (b) Virruddha (d) Savyabhicara
- Q.35. Which of the following are true in the case of the audience for analog media? They are:
- (A) Personally addressable
 (B) Active campaigners

- (C) Large
 (D) Heterogenous
 (E) Anonymous

Choose the correct answer from the options given below:

- (a) A, B & C only (c) A, B & E only
 (b) B, C & D only (d) C, D & E only

- Q.36. Secretariate of Convention on Biodiversity (CBD) is situated in

- (a) Geneva, Switzerland
 (b) New York, United States
 (c) London, England
 (d) Montreal, Canada

- Q.37. Which among the following are Natural Green House Gases (GHGs)?

- (A) CO₂ (Carbon dioxide)
 (B) H₂O (Water vapor)
 (C) CH₄ (Methane)
 (D) O₃ (Ozone)
 (E) CFC (Chlorofluorocarbon)

Choose the correct answer from the options given below:

- (a) A, B, C & D only (c) B, C, D & E only
 (b) A, C, D & E only (d) A, B, C & E only

- Q.38. "We become builders by building and we become just by doing what is just" In the light of this statement what can not be asserted?

- (a) Man is a virtuous being
 (b) Virtues are like skill
 (c) Skills are acquired by performing relevant activity
 (d) Virtue is a mechanical and non-ethical skill.

- Q.39. Given below are two statements:

Statement I: The standard deviation of a series of repeated measurements estimates the likely size of the chance error in a single measurement.

Statement II: Bias affects all the measurements the same way, pushing them in the same direction.

In the light of the above statements, choose the most appropriate 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.

- Q.40. If in a certain code 'Generalization' is written as 52627134819406, how the word 'Oreganos' be written in that code?

- (a) 07521680 (c) 07251806
 (b) 07251608 (d) 72085106

- Q.41. Salary of a person decreases by 10% every year and his bonus increases by 24% every year. If his salary and bonuses at the end of 2020 were ₹ 8000 and ₹ 2500 respectively, find the difference between his total earning in March, 2020 and March 2022.

- (a) ₹ 165, increase (c) ₹ 180, decrease
(b) ₹ 176, increase (d) ₹ 176, decrease

Q.42. Given below are two statements:

Statement I: The centralised control of signs and symbols of mediated communication may affect plurality of opinions on the Internet.

Statement II: The global corporate owners of Internet companies aim only at profits, not the existence of pluriverse.

In the light of the above statements, choose the most appropriate 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.

Q.43. Which of the following statements A-C are correct about a Hard-Disk Drive (HDD) used as a storage device in computer?

- (A) It has no moving parts
(B) It is non-volatile
(C) It uses magnetic properties to store data

Choose the correct answer from the options given below:

- (a) A & B only (c) B & C only
(b) A & C only (d) A, B & C

Q.44. Which aspect of the researcher may cause psychosocial effect in the participant of a study?

- (a) Age (c) Sex
(b) Race (d) Attitude

Q.45. In the light of Buddhist system of education students was expected to follow 'Das Sikha Padam'. Which of the following does not represent the code of conduct:-

- (A) To avoid food at odd times
(B) To avoid untrue speech
(C) To relish music and dance
(D) To avoid stealing
(E) To accept gifts in charity

Choose the correct answer from the options given below:

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

Direction for Questions (46 -50):

Read the following passage and answer the question.

Given the precarious condition of its ground and surface water resources (rivers, stream, lakes, wetlands and reservoirs). India could be a water-scarce country in the next 40 years. With 1,486 cubic meters (~1.5 million litres) of water available per person, per annum. India falls in the water stressed category. A dip below 1000 cubic meters per person, per annum will push it into the water-scarce category.

The manner of water consumption also compounds the problem. Central Ground Water Board (CGWB) statistics show the indiscriminate use of ground water turned 4% of the total 7,809 assessed units in the country critical

in 2022 while 14% were assessed as over-exploited. The situation was worse in 2017 when 17% of the units over-exploited. Various recharge and conservation efforts have borne fruit but the number of such units remain high in state like Punjab, Rajasthan, Haryana, Delhi, Tamil Nadu and Karnataka.

In India, 87% of groundwater is extracted for irrigation and experts say excess withdrawal round the year may be the biggest reason for depletion, as the recharge primarily happens in the monsoon. On the other hand encroachment of water bodies and the discharge of untreated waste water into rivers and streams have reduced the surface water resources.

Q.46. Assuming that the total number of ground units assessed by CWGB in the years 2017 and 2022 were same (i.e., 7089). What is the difference between the number of over-exploited units in 2017 and 2022?

- (a) ~ 213 (c) ~ 260
(b) ~ 216 (d) ~ 354

Q.47. India will become water-scarce country if the availability of water per person per annum falls below:

- (a) ~ 1 million litre
(b) ~ 1.5 million litre
(c) ~ 1.2 million litre
(d) ~ 100000 litre

Q.48. Which of the following states have been found to be have high number of over exploited units of ground water?

- (A) Rajasthan and Delhi
(B) Punjab & Haryana
(C) Uttar Pradesh
(D) Tamil Nadu & Karnataka
(E) Madhya Pradesh

Choose the correct answer from the options given below:

- (a) A, B, C & D only (c) B, C, D & E only
(b) A, B & D only (d) A, B, C, D & E

Q.49. In the year 2022 how many units of water assessed by CGWB were found to be over-exploited?

- (a) ~ 283 (c) ~ 1276
(b) ~ 992 (d) ~ 1006

Q.50. Identify the factors responsible for depletion of water resources.

- (A) High consumption of water in agricultural sector
(B) High consumption of water in Commercial sector
(C) Encroachment of water bodies
(D) Excessive water use in domestic sector
(E) Discharge of untreated waste water in rivers and streams.

Choose the correct answer from the options given below:

- (a) A, C, D & E only (c) A, B, C, D & E
(b) A, B, C & E only (d) A, C & E only

Answer Key			
Q. NO	ANSWER	Topic	Unit/Chapter
1	d	Data Interpretation	Data Interpretation
2	d	Data Interpretation	Data Interpretation
3	b	Data Interpretation	Data Interpretation
4	b	Data Interpretation	Data Interpretation
5	a	Data Interpretation	Data Interpretation
6	d	Terminology	ICT
7	c	Types of Communication	Communication
8	a	New Education Policy	Higher Education
9	b	Computer Hardware	ICT
10	c	Indian Logic	Logical Reasoning
11	c	Methods of Teaching	Teaching Aptitude
12	c	General Aptitude	Communication
13	a	Level of Significance	Research Aptitude
14	a	Research Ethics	Research Aptitude
15	d	Affecting Factors To Learning	Teaching Aptitude
16	c	Software	ICT
17	d	General Awareness	ICT
18	c	Percentage	Mathematical Reasoning
19	a	Indian Universities	Higher Education
20	d	Types of Communication	Communication
21	a	Terminology	Logical Reasoning
22	b	Types of Scale	Research Aptitude
23	d	Pollution	People And Environment
24	b	Indian Universities	Higher Education
25	a	Number System	ICT
26	a	Number Series	Mathematical Reasoning
27	a	Types of Evaluation	Teaching Aptitude
28	d	Methods of Teaching	Teaching Aptitude
29	b	Pollution	People And Environment
30	c	Types of Fallacies	Logical Reasoning
31	c	Water Pollution	People And Environment
32	c	Percentage	Mathematical Reasoning
33	a	Argument	Logical Reasoning
34	c	Types of Fallacies	Logical Reasoning
35	a	Terminology	Communication

36	d	Conventions On Environment	People And Environment
37	d	Pollutants	People And Environment
38	c	Argument And Conclusion	Logical Reasoning
39	a	Research Awareness	Research Aptitude
40	b	Coding Decoding	Mathematical Reasoning
41	d	Percentage	Mathematical Reasoning
42	c	Barriers of Communication	Communication
43	d	Hardware	ICT
44	d	Research Biasness	Research Aptitude
45	d	Ancient Education	Higher Education
46	a	Comprehension	Comprehension
47	a	Comprehension	Comprehension
48	b	Comprehension	Comprehension
49	b	Comprehension	Comprehension
50	d	Comprehension	Comprehension

