

Total No. of printed pages = 24

TR/IPS/P-I(One)/21

Paper – I

Full Marks – 100

Time – Three hours

The figures in the margin indicate full marks for the questions.

This question paper is divided into 2 (two) sections i.e., Section-I and Section-II. Section-I contains Comprehension and English Grammar and questions under this section are of Conventional type. Section-II contains 60 marks and questions under this section are of objective type.

2 (two) Answer books will be supplied to each candidate for writing answers of Section-I and Section-II. Candidates will have to answer questions of both the sections in the Answer books in **English** only.

SECTION – I

1. Read the following passage carefully and answer the questions that follow : $4 \times 5 = 20$

Half the world does not have enough to eat. Each year, as a result, many millions die young. The bodies and minds of many more are permanently damaged by hunger.

[Turn over

We say to you, this suffering can be and must be stopped. When all of us in the rich and poor countries, make up our minds to stop it, we can stop it.

The earth is ruled mainly by the people out of touch with the young world. They know that men starve and die in millions. But they think it more important to make guns and bombs, to send us to fight one other, than to provide seed and water, schools and hospitals, so that we might feed and serve one another.

If you live in a poor country, demand enough food for your countrymen. Do not turn your backs on the people who provide the food; instead, work with them for rural development.

If you are educated in special knowledge and skills, remember that Science and technology that can send men into space, need only to be released into the poor countries to work even greater miracles.

If you are a parent, resolve to end the sufferings of children. Know too, how to plan the size of your family, so that progress of all is not endangered.

Let us make plain to the rulers that the division of the world into rich and poor must end.

The many billions spent on armaments must be spent to develop the world. Let them know, too, that if political and financial systems prevent a just distribution of food and wealth, these systems must be replaced.

Above all we must show our willingness to work for world development. Mankind is one family in which each of us has the duty to help the others.

- ✓ (a) What is the suffering that 'can be and must be stopped' ?
- ✓ (b) What does the passage say about the rulers who rule the earth ?
- ✓ (c) Explain 'the greater Miracles' that Science and Technology can bring in the poor countries – other than space conquest.
- ✓ (d) Bring out the suggestions mentioned in the passage, regarding solutions of the problems, a poor country faces with.
- (e) Write in your own words the determination and the message indicated at the end of the passage.

2. Use the following idioms and phrases in sentences so as to bring out their meaning clearly :

1×5=5

- (a) Brought about
- (b) Called for
- (c) Cut down
- (d) Got away
- (e) Looking forward to.

3. Write the antonyms of the following : 1×3=3

- (a) Abbreviate
- (b) Anger
- (c) Beneficial.

4. Write the synonyms of the following : 1×2=2

- (a) Clarity
- (b) Clever.

5. Fill up the blanks with appropriate articles :

1×3=3

- (a) He is an European but his wife is a Indian.
- (b) Shakespeare is the Kalidas of England.
- (c) The higher we go, the cooler it is.

6. Fill up the blanks with appropriate prepositions :

1×2=2

(a) When I parted for my mother, there were tears in my eyes.

(b) They wanted advice on how they could produce funds for their new business.

7. Make necessary corrections in the following sentences without changing their meaning :

1×5=5

(a) You may ask one of the boy here.

(b) The vaccine ⁿ was distributed freely.

(c) Tea or Coffe, which do _{one} you prefer most ?

(d) I regret at the delay. ✓

(e) Where you are coming from ?
_x

SECTION – II (A)

Q. Nos. 1 to 20

Choose the correct option of the following :

1×20=20

1. Which of the following is not an input device ?

- (a) Keyboard (b) Joystick
(c) Scanner (d) Monitor

2. MICR stands for

- (a) Magnetic Ink Character Reader
(b) Magnetic Ink Code Reader
(c) Magnetic Ink Cases Reader
(d) None of the above

3. In the website, www.tpsc.tripura.gov.in, what is the meaning of gov.in ?

- (a) gov. stands for government and in means inside
(b) gov. stands for governing body and in means inside
(c) gov. stands for government and in means India
(d) None of the above

4. Which of the following Act is related to cyber related crimes ?

- (a) Cyber Act
- (b) Computer Act
- (c) IT Act
- (d) None of these

5. A Computer program that converts an entire program into machine language is called a/an

- (a) Interpreter
- (b) Simulator
- (c) Compiler
- (d) Commander

6. Which of the following is also known as brain of computer ?

- (a) Control unit
- (b) Central Processing unit
- (c) Arithmetic and language unit
- (d) Monitor

7. ASCII and EBCDIC are the popular character coding systems. What does EBCDIC stand for ?

- (a) Extended Binary Coded Decimal Interchange Code
- (b) Extended Bit Code Decimal Interchange Code
- (c) Extended Bit Case Decimal Interchange Code
- (d) None of these.

8. Which of the following is not an editor ?
✓ (a) MS Word (b) Notepad
(c) Wordpad (d) Spider
9. Which of the following is latest storage device ?
✓ (a) HDD (b) SDD
(c) Pen Drive (d) None of these
10. Integrated Circuits (ICs) are related to which generation of computers ?
✓ (a) First generation
(b) Second generation
✓ (c) Third generation
(d) Fourth generation
11. Which one of the following is also known as read/write memory ?
✓ (a) ROM (b) RAM
(c) DVD (d) Hard Disk
12. A byte consists of how many bits ?
✓ (a) 8 (b) 9
(c) 10 (d) 16

13. _____ has the shortest access times.
- (a) Virtual Memory
 - (b) Secondary Memory
 - (c) Cache Memory
 - (d) All of the above
14. Every computer connected to the Internet is identified by a unique four-part string, known as
- (a) IP address
 - (b) Host name
 - (c) Domain name
 - (d) None of the above
15. USB is a device used to store data and it stands for
- (a) Unlimited Service Band
 - (b) Unlimited Serial Bus
 - (c) Universal Serial Bus
 - (d) Universal Service Bus

16. IP address is
- (a) a unique address assigned to computer when it is connected to internet
 - (b) is a protocol used for establishing communication
 - (c) is a programmable internet device
 - (d) None of the above
17. Which of the following is not an Operating System ?
- (a) Windows XP
 - (b) COBOL
 - (c) Unix
 - (d) Windows 10
18. A quad core processor in a computer consists of
- (a) 2 CPU
 - (b) 4 CPU
 - (c) 4 ALU
 - (d) None of the above

19. What is the full form of GPU ?

- (a) Ground Processing Unit
- (b) General Processing Unit
- (c) Graphical Processing Unit
- (d) None of the above

20. Artificial Intelligence

- (a) is a technique for transferring intelligence from computer to human
- (b) is used to write programs for designing intelligent machines
- (c) is a technique to automatically transfer intelligence from human to computer.
- (d) None of the above.

SECTION – II (B)

Q. Nos. 21 to 40

Choose the correct option of the following :

$$1 \times 20 = 20$$

21. In the last three months, Mrs. Tripathi lost $5\frac{1}{2}$ kg, gained $2\frac{1}{4}$ kg and then lost $3\frac{3}{4}$ kg. If she now weighs 95kg, how much did Mrs. Tripathi weigh to begin with

- (a) 100 kg (b) 102 kg
(c) 106.5 kg (d) 104.5 kg

22. If $\left(\frac{3}{8}\right)^{-5} \times \left(\frac{16}{21}\right)^{-5} = \left(\frac{2}{7}\right)^x$, then the value of x^3 is

- (a) 125 (b) -27
(c) 27 (d) -125

23. If $\left(\frac{60}{7}\right)^{x-2} = \left(\frac{7}{60}\right)^{x-6}$, then x is equal to

- (a) 3 (b) 4
(c) 5 (d) 6

24. If $\sqrt{15625} = 125$, then $\sqrt{15625} + \sqrt{156.25} + \sqrt{1.5625}$ is equal to

(a) 1.3875

(b) 13.875

(c) 138.75

(d) 156.25

25. If $x + \frac{1}{x} = 2$, then the value of $x^4 + \frac{1}{x^4}$ is

(a) 34

(b) 6

(c) 4

(d) 2

26. If $x + 2y = 2x + y$, then the value of $\frac{x^2}{y^2}$ is

(a) 0

(b) 1

(c) 2

(d) 4

27. A sum of ₹ 27 is in the form of 50 paise, 25 paise and 20 paise coins. The number of 25 paise coins is double the number of 20 paise coins but half the number of 50 paise coins. Then the number of 25 paise coins, is

(a) 5

(b) 10

(c) 15

(d) 20

28. A shopkeeper bought locks at the rate of 8 locks for ₹ 34 and sold them at the rate of 12 locks for ₹ 57. His percentage gain is

(a) $\frac{100}{7}$

(b) $\frac{100}{14}$

(c) $\frac{100}{17}$

(d) $\frac{200}{17}$

29. Two men can do a piece of work in 6 hrs. and 4 hrs. respectively. After the first has worked for 2 hrs. he is joined by the other. Then the time taken to complete the work will be

(a) 1.6 hrs.

(b) 2.0 hrs.

(c) 2.4 hrs.

(d) 3.0 hrs.

30. A cylindrical pillar is 1m in diameter and 4.2m in height. The cost of white washing the curved surface of the pillar at the rate of ₹15 per m², is

(a) ₹ 198

(b) ₹ 19.8

(c) ₹ 1.98

(d) ₹ 200

31. The HCF of two numbers is 11 and their LCM is 7700. If one of the numbers is 275, then the other number is
- (a) 28 (b) 308
(c) 700 (d) 37
32. Rita invested 25% more than Sunil. Sunil invested 30% less than Abhinav who invested Rs. 6,000. What is respective ratio between the amount that Rita invested and the total amount invested by all of them together?
- (a) 35:104
(b) 13:29
(c) 101:36
(d) 35:103
33. If the height of triangle is decreased by 40% and its base is increased by 40%. What will be the area percentage change in its area?
- (a) 20% increase
(b) 20% decrease
(c) 16% decrease
(d) 12% increase

34. A pulley revolves at a speed that is inversely proportional to its diameter. A pulley with a diameter of 12 cm is belted to a pulley with diameter of 8 cm. If the smaller pulley is revolving at a rate of 96 rpm (revolution per minute), how fast is the larger pulley revolving?

- (a) 144 rpm (b) 64 rpm
(c) 40 rpm (d) 48 rpm

35. The value of $8\frac{1}{4}$ of $\frac{3}{4} + 6 \div \left[4 \times \left\{ 3 - \left(2 - \frac{1}{3} \right) \right\} \right]$ is

- (a) $6\frac{5}{16}$ (b) $7\frac{5}{16}$
(c) $8\frac{5}{16}$ (d) $9\frac{5}{16}$

36. A basket had 250 mangoes. $\frac{1}{10}$ were rotten.

Rakesh and his friends had $\frac{1}{9}$ of the remaining mangoes. What fraction of the total number of mangoes was left?

- (a) $\frac{4}{5}$ (b) $\frac{5}{4}$
(c) $\frac{3}{4}$ (d) $\frac{6}{4}$

37. The sum of two rational numbers is $\frac{-3}{5}$. If one of the numbers is $\frac{-2}{15}$, find the other.

(a) $\frac{7}{15}$

(b) $-\frac{7}{15}$

(c) $-\frac{8}{15}$

(d) $\frac{8}{5}$

38. The perimeter of a rectangle is 144 cm. If one of the two adjacent sides is 20 cm longer than the other, then the lengths of the sides are

(a) 10 cm, 35 cm

(b) 35 cm, 40 cm

(c) 20 cm, 30 cm

(d) 26 cm, 46 cm

39. The circumference and the area of a circle at radius 21 cm are

(a) 132 cm, 1386 cm²

(b) 1386 cm², 132 cm

(c) 132 cm, 132 cm²

(d) 1386 cm, 1386 cm²

40. If a, b, c are three numbers such that $a:b = 5:9$
and $b:c = 27:35$, find a:c.

- (a) 3:7
- (b) 7:3
- (c) 4:7
- (d) 7:4

SECTION – II(C)

Q. Nos. 41 to 60

Choose the correct option of the following :

1×20=20

✓ 41. A person is standing freely in a bus. When the bus starts suddenly he gets thrown backwards (reverse to the direction of motion of the bus). This is an example of which type of inertia ?

(a) Rest

(b) Motion

(c) Direction

(d) Force

✓ 42. Force of gravity on the surface of earth is least at

(a) the equator

✗ (b) the poles

(c) a point in between equator and any pole

✓ (d) None of these

✓ 43. The most non-polluting and efficient lighting device is

(a) CFL

✓ (b) LED

(c) Fluorescent light

(d) None of these

44. Cells that lack a true nucleus and do not have nuclear membrane are called

- (a) Eukaryotic
- (b) Mononucleate
- (c) Prokaryotic
- (d) Multinucleate

45. The carbon content in anthracite is about

- (a) 40%-45%
- (b) 50%-55%
- (c) 60%-65%
- (d) 90%-98%

46. An example of a liquid metal is _____ and that of a liquid non-metal is _____ at room temperature.

- (a) gallium, mercury
- (b) mercury, fluorine
- (c) mercury, bromine
- (d) bromine, mercury

47. Mirage is a phenomenon due to

- (a) refraction of light
- (b) diffraction of light
- (c) total internal reflection of light
- (d) None of these

48. When white light passes through a prism, it splits into its component colours. This phenomenon is called

- (a) Spectrum
- (b) Reflection
- (c) Refraction
- (d) Dispersion

49. An electric fuse is based on

- (a) the heating effect of current
- (b) the chemical effect of the current
- (c) the magnetic effect of the current
- (d) None of the above

50. Atom bomb is based on

- (a) Chemical reaction
- (b) Nuclear fission
- (c) Nuclear fusion
- (d) None of these

51. The latest technique used for purification of organic compound is

- (a) Chromatography
- (b) Vacuum distillation
- (c) Fractional distillation
- (d) None of these

52. Choose the correct pair from the following :

- (a) Aluminium – Non metal
- (b) Bronze – Alloy
- (c) Steel – Radio active metal
- (d) Carbon – Gas

53. Nylon threads are made of

- (a) Polyester polymer
- (b) Polyamide polymer
- (c) Polyethylene polymer
- (d) Polyvinyl polymer

54. Acid rain is caused by

- (a) SO_2 and CO
- (b) SO_2 and NO_2
- (c) NH_3 and CO
- (d) PH_3 and CO

55. Algal bloom results in

- (a) Global warming
- (b) Salinization
- (c) Eutrophication
- (d) Biomagnification

56. The outbreak of Corona Virus (Covid-19) is treated as

- (a) Epidemic disease
- (b) Endemic disease
- (c) Pandemic disease
- (d) Non communicable disease

57. The disease caused by deficiency of iodine is called

- (a) Anaemia
- (b) Beriberi
- (c) Scurvy
- (d) Goitre

58. If heart beat rate increases

- (a) the pulse rate increases
- (b) the pulse rate decreases
- (c) the pulse stops
- (d) the pulse rate remains constant

59. The expression "Survival of the fittest" was coined by

- (a) H. Spencer
- (b) Charles Darwin
- (c) A. Oparin
- (d) None of them

60. The term "Vaccine" was first coined by

- (a) Koch
- (b) Jenner
- (c) Pasteur
- (d) Kohler.