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Part-I GENERAL KNOWLEDGE

Q 1 : To evolve a peaceful settlement of the conflict between India and China, which of the following non-aligned Afro-Asian nations participated in a conference held in December 1962?
A: Burma (now Myanmar), Cambodia, Indonesia and UAE
B: Burma, Sri Lanka, Cambodia and Indonesia
C: Burma, Indonesia, Ghana and Sri Lanka
D: All of the above
Answer : D

Q 2 : Under the Guptas in eastern India, there was probably an intermediate level of administration between vishayas (districts) and villages. Identify it.
A: Bukkit
B: Pradesh
C: Vighi
D: Ahara
Answer: c

Q 3 : The term Nirgrantha is associated with
A: Ajivikas
B: Charvakas
C: Jainas
D: Pasupatas
Ans:C

Q 4 : The Kalinga was fought in
A: 321 BC
B: 301 BC
C: 261 BC
D: 241 BC
Answer : C

Q 5 : Under the Government of India, Provincial Legislatures consisted of two chambers, except in the case of
A: Assam
B: Bihar
C: Madras
D: Punjab
Answer : D

Q6: Though Ashoka had many sons, the inscriptions mentioned only one who is not mentioned in any other source. He is
A: Kunala
B: Tivara
C: Mahendra
D: Jalauka
Answer : B

Q7: We can know about early vedic period from
A: archaeological excavations
B: the Rig Veda
C: Jatak Katha
D: contemporary culture
Answer : B

Q8 : The Upanishads ar
A: a source of Hindu philosophy
B: books of ancient Hindu laws
C: books on social behavior of man
D: prayers to God
Answer : A

Q 9 : Universities in the Presidency towns in India were established in
A: 1857
B: 1858
C: 1900
D: 1909
Answer : A

Q 10 : The Vijayanagara king who employed skilled archers of the Turkish clan and raised the fighting capacity of his bowmen was
A: Bukka I
B: Devaraya I
C: Krishnadevaraya
D: Ramaraya
Answer :

Q 11 : The Venetian traveler who travelled with his wife and reached Vijayanagar around 1420 was
A: Athanasius Nikitin
B: Nicolo de Conti
C: Ibn Batuta
D: Ferishta
Answer : B

Q 12 : The year 788 AD was a good one for Hinduism. Why?
A: Shankaracharya was born that year.
B: Harsha Vardhana, the last Buddhist king, died.
C: Samudragupta converted to Hinduism.
D: All Muslim invaders were defeated.
Answer : A

Q 13 : The Uprising of 1857 was described as the first Indian war of Independence by
A: S.N. Sen
B: R.C. Mazumdar
C: B.G. Tilak
D. DVD Savarkar
Answer : D

Q 14 : The twenty-third Jaina teacher, Parsva, the immediate predecessor of Mahavira enjoined on his disciples four great vows. To these Mahavira added which of the followings as the fifth vow?
A: Abstention from stealing
B: Non-injury
C: Brahmacharya or continence
D: Non-attachment
Answer : C

Q 15 : The Turko-Afghan rule in India lasted for about
A: two centuries
B: three centuries
C: four centuries
D: a little over one century
Answer : B

Q 16 : Visakhadatta sketches the event after the death of Samudragupta in his work
A: Mudrarakshasa
B: Devi Chand Gupta
C: Mrichchakatika
D: Malavikagnimitra
Answer : A

Q 17 : The system of Dual Government during the latter half of the 18th century AD is associated with the name of
A: Clive
B: Cornwallis
C: Warren Hastings
D: William Bentinck
Answer : A

Q 18 : 'The Vedas contain all the truth was interpreted by
A: Swami Vivekananda
B: Swami Dayananda
C: Raja Rammohan Roy
D: None of the above
Answer : B

Q 19 : The term samanta, meaning a feudatory from the sixth century AD, originally meant a A: slave
B: cultivator
C: neighbor
D: foreigner
Answer : C

Part-II GENERAL SCIENCE

Q20 : Detergents used for cleaning clothes and utensils contain?
A: bicarbonates
B: bismuth rates
C: sulphonates
D: nitrates
Answer : C

Q 21 : Epoxy resins are used as
A: detergents
B: insecticides
C: adhesives
D: moth repellents
Answer : C

Q 22 : Which of the following is commonly called a ‘polyamide’?
A: Terylene
B: Nylon
C: Rayon
D: Orlon
Answer : B

Q23: Which type of fire extinguisher is used for petroleum fire?
A: Powder type
B: Liquid type
C: Soda acid type
D: Foam type
Answer :

Q 24 : Which is/are the important raw material(s) required in cement industry?
A: Gypsum and Clay
B: Clay
C: Limestone and Clay
D: Limestone
Answer : C

Q25 : Deep blue colour is imparted to glass by the presence of
A: cupric oxide
B: nickel oxide
C: cobalt oxide
D: iron oxide
Answer : C

Q26 : In vulcanisation, natural rubber is heated with
A: Carbon
B: Silicon
C: Sulphur
D: Phosphorous
Answer : C

Q27 : How does common salt help in separating soap from the solution after saponification?
A: By decreasing density of Soap
B: By decreasing solubility of Soap
C: By increasing density of Soap
D: By increasing solubility of Soap
Answer : B

Q28 : What are the soaps?
A: Salts of silicates
B: Mixture of glycerol and alcohols
C: Sodium or potassium salts of heavier fatty acids
D: Esters of heavy fatty acids
Answer : C

Q 29 : The major ingredient of leather is
A: collagen
B: carbohydrate
C: polymer
D: nucleic acid
Answer : A

Q 30: Optic fibres are mainly used for which of the following?
A: Musical instruments
B: Food industry
C: Weaving
D: Communication
Answer : D

Q 31 : Rayon is chemically
A: cellulose
B: pectin
C: glucose
D: amylase
Answer : A

Q 32 : Wood is the main raw material for the manufacture of
A: paint
B: paper
C: ink
D: gunpowder
Answer : B

Q 33: Which of the following is a protein?
A: Natural rubber
B: Starch
C: Cellulose
D: None of these
Answer : A

Q34 : Which of the following is used for removing air bubbles from glass during its manufacture?
A: Arsenous oxide
B: Potassium carbonate
C: Soda ash
D: Feldspar
Answer : A

Q 35: Soap is a mixture of sodium or potassium salts of
A: dicarboxylic acids
B: monocarboxylic acids
C: glycerol
D: tricarboxylic acids
Answer : B

Q 36 : Gypsum is added to cement clinker to
A: increase the tensile strength of cement
B: decrease the rate of setting of cement
C: facilitate the formation of colloidal gel
D: bind the particles of calcium silicate
Answer : B

Q 37 : Paper is manufactured by
A: Wood and resin
B: Wood, sodium and bleaching powder
C: Wood, calcium, hydrogen sulphite and resin
D: Wood and bleaching powder
Answer : C

Q38 : The vast resources of unutilised natural gas can be used in the production of
A: graphite
B: Synthetic petroleum
C: fertilisers
D: carbide
Answer : C

Q39: Glass is made of the mixture of
A: quartz and mica
B: sand and silicates
C: salt and quartz
D: sand and
salt Answer : B

Part-III MATHEMATICS

4o. The probability that an electronic device produced by a company does not function properly is equal to 0.1. If 10 devices are bought, then the probability, to the nearest thousandth, that 7 devices function properly is
A. 0.057
B. 0.478
C. 0.001
D. 0
Ans-a

41. The period of 2 sin x cos x is
A. 4 pi^2
B. 2 pi
C. 4 pi
D. pi
Ans-d

42. When a metallic ball bearing is placed inside a cylindrical container, of radius 2 cm, the height of the water, inside the container, increases by 0.6 cm. The radius, to the nearest tenth of a centimeter, of the ball bearing is
A. 1 cm
B. 1.2 cm
C. 2 cm
D. 0.6 cm
Ans- b

43.The period of | sin (3x) | is
A. 2 pi
B. 2 pi / 3
C. pi / 3
D. 3 pi
Ans- C

43.If f(x) is an odd function, then | f(x) | is
A. an odd function
B. an even function
C. neither odd nor even
D. even and odd
Ans-B

44.The mean of a data set is equal to 10 and its standard deviation is equal to 1. If we add 5 to each data value, then the mean and standard deviation become
A. mean = 15 , standard deviation = 6
B. mean = 10 , standard deviation = 6
C. mean = 15 , standard deviation = 1
D. mean = 10 , standard deviation = 1
Ans. C

45.Five different books (A, B, C, D and E) are to be arranged on a shelf. Books C and D are to be arranged first and second starting from the right of the shelf. The number of different orders in which books A, B and E may be arranged is
A. 5!
B. 3!
C. 2!
D. 3! * 2!
Ans- b

46. A school committee consists of 2 teachers and 4 students. The number of different committees that can be formed from 5 teachers and 10 students is
A. 10
B. 15
C. 2100
D. 8
Ans- C

47.The three solutions of the equation f(x) = 0 are - 4, 8, and 11. Therefore, the three solutions of the equation f(2 x) = 0 are
A. - 2, 4, and 11/2
B. - 8, 16 and 22
C. - 4, 8, and 11
D. 2, 19 / 2 and 7 / 2
Ans- A

48. The graphs of the two equations $y = a x^2 + b x + c$ and $y = A x^2 + B x + C$, such that a and A have different signs and that the quantities $b^2 - 4 a c$ and $B^2 - 4 A C$ are both negative,
A. intersect at two points
B. intersect at one point
C. do not intersect
D. none of the above
Ans. C

49. The graphs of the two linear equations ax + by = c and bx - ay = c, where a, b and c are all not equal to zero,
A. are parallel
B. intersect at one point
C. intersect at two points
D. perpendicular
Ans-d

50. When a parabola represented by the equation $y - 2x^2 = 8 x + 5$ is translated 3 units to the left and 2 units up, the new parabola has its vertex at
A. (-5 , -1)
B. (-5 , -5)
C. (-1 , -3)
D. (-2 , -3)
Ans-A