



**CBRT - 2019
Question Paper Grid**

Government of Goa

26 May 2019

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Set Name

Subjects

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Assistant Professor(Botany)

Itemcode : **PB1127**

Q1 : Real Madrid won the 2018 UEFA Champions League. Who was the runner-up?

- (a) Juventus
- (b) Atletico Madrid
- (c) Liverpool
- (d) Manchester United

Key: **C**

Itemcode : **PB1128**

Q2 : In which year, Mamata Banerjee led Trinamool Congress came to power for the first time in West Bengal?

- (a) 2009
- (b) 2010
- (c) 2011
- (d) 2015

Key: **C**

Itemcode : **PB1129**

Q3 : As per Swachh Sarvekshan 2017, _____ was declared the cleanest City in India.

- (a) Indore
- (b) Bhopal
- (c) Surat
- (d) Mysore

Key: **A**

Itemcode : **PB1130**

Q4 : Who was the last Mughal Emperor in India?

- (a) Shah Alam II
- (b) Muhammad Shah Bahadur
- (c) Akbar Shah II
- (d) Bahadur Shah II

Key: **D**

Itemcode : **PB1131**

Q5 : Who among the following founded Google?

- (a) Jack Dorsey
- (b) Jan Koum
- (c) Larry Page
- (d) Jeff Bezos

Key: **C**

Itemcode : **PB1132**

Q6 : Mangalyan, the Mars Orbiting Mission by India was launched in _____ year.

- (a) 2013
- (b) 2014
- (c) 2015
- (d) 2016

Key: **B**

Itemcode : **PB1133**

Q7 : Gomant Vibhushan Award is the highest civilian honor by the Government of Goa. The last time this was given in 2016. Who received the award?

- (a) Laxman Pai
- (b) Lambert Mascarenhas
- (c) RA Mashelkar
- (d) Charles Correa

Key: **A**

Itemcode : **PB1134**

Q8 : Who has become the World's First Female Cricketer to take 200 wickets in One Day Internationals?

- (a) Jhulan Goswami
- (b) Veda Krishnamurthy
- (c) Smriti Mandhana
- (d) Neetu David

Key: **A**

Itemcode : **PB1135**

Q9 : The famous 'Hornbill Festival' is held in which of the following states?

- (a) West Bengal
- (b) Assam
- (c) Nagaland
- (d) Kerala

Key: **C**

Itemcode : **PB1136**

Q10 Who among the following is a founder of Wikipedia

:

- (a) Ward Cunningham
- (b) Larry Sanger
- (c) Rick Gates
- (d) Bill Gates

Key: **B**

Itemcode : **PB1091**

Q11 Spot the error in the following sentence. The Alphabet of that Part (containing the error) is your answer.

:

- (a) What to talk of charity
- (b) Rajan does not practise
- (c) even
- (d) ordinary humanity

Key: **A**

Itemcode : **PB1092**

Q12 Spot the error in the following sentence. The Alphabet of that Part (containing the error) is your answer.

:

- (a) No King in that period
- (b) was so intensely involved
- (c) in the welfare of his people
- (d) as King Ashoka

Key: **A**

Itemcode : **PB1093**

Q13 Fill in the blank with the correct preposition.

: I am not obsessed _____ such ideas as you are.

- (a) in
- (b) on
- (c) for
- (d) with

Key: **D**

Itemcode : **PB1094**

Q14 Fill in the blank with the correct preposition.

: India is committed _____ a policy of peaceful existence.

- (a) for
- (b) with
- (c) to
- (d) of

Key: **C**

Itemcode : **PB1095**

Q15 Choose the correct Antonym from the following word given.

: ANTIPATHY

- (a) indifference
- (b) willingness
- (c) fondness
- (d) artificial

Key: **C**

Itemcode : **PB1096**

Q16 Choose the correct Antonym from the following word given.

: MOROSE

- (a) healthy
- (b) gloomy
- (c) haggard

(d) cheerful

Key: **D**

Passage:

Read the following passage and answer the following questions on the basis of information provided in the passage.

Our body is a wondrous mechanism and when subjected to unusual stress over a period of time, it adapts itself to deal more effectively with that stress. So when you exert your muscles against resistance, they are forced to adapt and deal with this extraordinary workload. This is the principle of weight training. Strands of muscle fibres become thicker and stronger in response to the demands placed on them.

One of the great merits of weight training is the strength of your heart. During weight training, your heart is forced to beat faster and stronger in order to pump sufficient blood to the muscles being worked. In time, your heart, like your body will adapt to this extra workload by becoming stronger and more efficient. Since your body needs a given amount of blood to perform its daily tasks your heart will now need fewer beats to pump the same quantity of blood. Sounds good? There's more. Your entire circulatory system is given a thorough workout every time you exercise, which increases its overall efficiency. Even the neural paths from your brain's command centres to each individual muscles become more effective, enabling easier recruitment of muscle fibres for carrying out physical tasks. In essence, your body becomes a well-oiled and finely-tuned piece of machinery, whirring along without any break-down. In today's stress filled world, you need all the help you can get.

Itemcode : **PB1097**

Q17 What is the principle training of weight lifting?

:

- (a) Adapting the body to muscle force
- (b) Adapting muscles to force implied on them
- (c) Disposing extra workload
- (d) Mechanised response to external conditions

Key: **B**

Itemcode : **PB1098**

Q18 How does the heart become stronger owing to physical exercise?

:

- (a) Thorough acclimatisation
- (b) Naturalisation
- (c) Adapting to excessive workload
- (d) By accelerating the circulation of blood

Key: **C**

Itemcode : **PB1099**

Q19 What does the term 'well-oiled' in the passage do note?

:

- (a) Healthy
- (b) Efficient
- (c) Managed
- (d) None of these

Key: **A**

Itemcode : **PB1100**

Q20 What affects the nature of muscle fibres?

:

- (a) Intensity of workload
- (b) Alimentary System
- (c) Nutrition
- (d) Stress imposed on them

Key: **D**

Itemcode : **PB1106**

Q21 Let P, Q, S, R, T, U and V represent seven distinct digits from 0 to 6, not necessarily in that order. If PQ and RS are both two digit numbers adding up to the three digit number TUV, find the value of V.

- (a) 3
- (b) 6
- (c) 5
- (d) Cannot be determined

Key: **C**

Itemcode : **PB1107**

Q22 Each one of Mr. Ugle, his mother, his wife and his son is a different professional among lawyer, doctor, engineer and accountant. The accountant is not the son of the lawyer, who is a blood relative of the doctor. The engineer is the son of the accountant who is not a blood relative of the doctor. Who can never be the doctor?

- (a) Mr. Ugle
- (b) Mr. Ugle's wife
- (c) Mr. Ugle's son
- (d) Both a & c

Key: **B**

Itemcode : **PB1108**

Q23 A and B start simultaneously from P and Q towards Q and P respectively. The speed of A and B are 25 kmph and 32 kmph respectively. They meet at R and immediately return to their respective starting points after exchanging their

speeds. If the distance between P and Q is 2000 km, then the difference in time taken by A and B to reach their starting position is

- (a) 15.5 hours
- (b) 20 hours
- (c) 16 hours
- (d) 17.5 hours

Key: **D**

Itemcode : **PB1109**

Q24 Find the number of two-digit numbers that are divisible by both 6 and 7 :

- (a) 4
- (b) 3
- (c) 2
- (d) 1

Key: **C**

Itemcode : **PB1110**

Q25 The sentences given in the question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. From among the four choices given below the question, choose the most logical order of sentences that constructs a coherent paragraph.

P. In their popular-philosophizing mode, physicists like to quote the poets Keats ("beauty is truth, truth beauty") or Blake on the subject of nature's "fearful symmetry".

Q. From Euclid and Pythagoras down to 20th century physicists, many who explore the underlying laws of natural world have been truth and beauty as inextricable intertwined.

R. Does science have a "beauty" problem?

S. "Beauty is a successful criterion of selecting the right theory," the Noble Prize-winning physicist Murray Gell-Mann said in a much quoted TED talk in 2007.

T. David Orrell, a mathematician and consultant argues that it does - or, at least, the some of its practitioners are enthralled to ideals involving "elegance", "symmetry", and "unity" that are beckoning them down false paths.

- (a) SPQRT
- (b) SQPRT
- (c) RTQSP
- (d) RSPQT

Key: **C**

Itemcode : **PB1111**

Q26 There are two blanks in question. From the pairs of words given below sentence choose the pair that fills the blank most appropriately.

A borrowed book is like a guest in the house; it must be treated with _____, with a certain considerate _____.

- (a) respect .. understanding
- (b) punctiliousness .. formality
- (c) propriety .. modesty
- (d) reverence .. decorum

Key: **B**

Itemcode : **PB1112**

Q27 There are two blanks in question. From the pairs of words given below sentence choose the pair that fills the blank most appropriately.

The government health sector in India has been on a _____ path since 2005, with substantial _____ of central government funds under the National Rural Health Mission (NRHM).

- (a) change .. mixture
- (b) modification .. combination
- (c) transformation .. blend
- (d) reform .. infusion

Key: **D**

Itemcode : **PB1115**

Q28 Clock is related to Time in the same ways as Vehicle is related to which of the following? :

- (a) Driver
- (b) Road
- (c) Journey
- (d) Fuel

Key: **C**

Itemcode : **PB1116**

Q29 A student received an average score of N points on her first 3 tests. If her fourth test score exceeds the average score of previous 3 tests by 20 points, then what is the average score for the four tests?

- (a) $N + 20$
- (b) $N + 10$
- (c) $N + 4$
- (d) $N + 5$

Key: **B**

Itemcode : **PB1117**

Q30 A thief running at 8 km/hr is chased by a policeman whose speed is 10 km/hr. If the thief is 100 m ahead of the

: policeman, then the time required for the policeman to catch the thief will be:

- (a) 2 min
- (b) 3 min
- (c) 4 min
- (d) 6 min

Key: **B**

Itemcode : **PB1118**

Q31 Which of the following situations below describes the best, as an example of 'Speculation'?

:

- (a) Francine decides that it would be appropriate to wear jeans to her new office on Friday after reading about "Casual Fridays" in her employee handbook.
- (b) Mary spends thirty minutes sitting in traffic and wishes that she took the train instead of driving.
- (c) After consulting several guidebooks and her travel agent, Jennifer feels confident that the hotel she has chosen is first-rate.
- (d) When Emily opens the door in tears, Theo guesses that she's had a death in her family.

Key: **D**

Itemcode : **PB1119**

Q32 Which situation below is the best example of 'Embellishing the Truth'?

:

- (a) Isabel goes to the theater, and the next day, she tells her coworkers she thought the play was excellent.
- (b) The realtor describes the house, which is eleven blocks away from the ocean, as prime waterfront property.
- (c) During the job interview, Fred, who has been teaching elementary school for ten years, describes himself as a very experienced teacher.
- (d) The basketball coach says it is likely that only the most talented players will get a college scholarship.

Key: **B**

Itemcode : **PB1120**

Q33 Statements: Some businessmen are fools. Some fools are rich.

: Conclusions:

- I. Some businessmen are rich
- II. Some rich are businessmen.

Which of the following is correct?

- (a) Only conclusion I follows
- (b) Only conclusion II follows
- (c) Either I or II follows
- (d) Neither I nor II follows

Key: **D**

Itemcode : **PB1121**

Q34 The price of a product is P. A shopkeeper raises its prices by X% and then offers a discount by Y% on the raised price.

: The discounted price again becomes P. if Y is the difference between X and Y, find Y.

- (a) 20
- (b) 25
- (c) 50
- (d) 100

Key: **C**

Itemcode : **PB1122**

Q35 If instead of multiplying a number by 6 the number was divided by 6. What should be the percentage error?

:

- (a) 100%
- (b) 96.00%
- (c) 94.00%
- (d) 98.00%

Key: **B**

Itemcode : **PB1123**

Q36 35% of 480 + 120% of 120 = _____ ?

:

- (a) 312
- (b) 222
- (c) 322
- (d) 212

Key: **A**

Itemcode : **PB1124**

Q37 The film director wants an actress for the lead role of Lucy who perfectly fits the description that appears in the original screenplay. He is not willing to consider actresses who do not resemble the character as she is described in the screenplay, no matter how talented they are. The screenplay describes Lucy as an average-sized, forty something redhead, with deep brown eyes, very fair skin, and a brilliant smile. The casting agent has four actresses in mind.

Actress #1 is a stunning red-haired beauty who is 5'9" and in her mid-twenties. Her eyes are brown and she has an olive complexion.

Actress #2 has red hair, big brown eyes, and a fair complexion. She is in her mid-forties and is 5'5".

Actress #3 is 5'4" and of medium build. She has red hair, brown eyes, and is in her early forties.

Actress #4 is a blue-eyed redhead in her early thirties. She's of very slight build and stands at 5'.

Which two actresses should the casting agent send to meet the director?

- (a) 1, 2
- (b) 2, 3
- (c) 1, 4
- (d) 2, 4

Key: **B**

Itemcode : **PB1125**

Q38 Three of the following four are alike in a certain way and so form a group. Which is the one that does not belong to that group?

- (a) Orange
- (b) Pear
- (c) Radish
- (d) Mango

Key: **C**

Itemcode : **PB1126**

Q39 A mixture comprises of water and liquids A and B. The volume of water is $\frac{1}{3}$ rd of the total mixture and the volume of liquids A and B are in the ratio of 5 : 3. To remove the water, the mixture is passed through a porous medium which completely absorbs the water and partially absorbs liquid A. Altogether this porous medium absorbs 200 ml of the initial mixture. If the ratio of volume of liquids A and B in the residual concentrated mixture becomes 7 : 9, then find the volume of water absorbed by the porous medium.

- (a) 60 ml
- (b) 100 ml
- (c) 80 ml
- (d) 120 ml

Key: **D**

Passage:

Answer the questions on the basis of the information given below.

Mr De Souza, a car dealer, sold cars of only two brands, A and B, in the previous year. This year, he introduced a new brand, C. The number of cars of brand A and brand B sold in the previous year were in the ratio 3 : 2, and the ratio of the number of cars sold in the previous year to that sold in this year is 2 : 3 for brand A and 2 : 5 for brand B. Further, the number of cars of brand C sold this year forms 81% of the total number of cars sold this year.

Itemcode : **PB1102**

Q40 Find the number of cars of brand C sold this year, given that a total of 24 cars of brand A were sold in the previous year.

- (a) 243
- (b) 324
- (c) 648
- (d) 162

Key: **B**

Itemcode : **PB1103**

Q41 What is the percentage increase in the total number of cars sold this year when compared to the total number of cars sold in the previous year?

- (a) 1000%
- (b) 600%
- (c) 900%
- (d) 400%

Key: **C**

Passage:

Answer the questions on the basis of the information given below.

A sports club shortlisted five persons - Andrew, Bradman, John, Whitefield and Chang. Each of them is from a different country among Australia, India, Japan, Pakistan and Canada, not necessarily in that order. At present, each of them is coaching the team of a different country among Australia, Bangladesh, China, Wales and Bermuda, not necessarily in that order. The following details were also observed about their particulars:

(i) For any person, each of his three particulars - his name, the name of the country from which he is and the name of the country that he is coaching at present, starts with a different letter.

(ii) Whitefield is coaching Australia and John is from neither Australia nor Pakistan.

(iii) Bradman is not coaching China and the person who is coaching Bermuda is from Canada.

(iv) Anshuman is neither from Canada nor from Pakistan and also the person from Pakistan is coaching Bangladesh.

Itemcode : **PB1104**

Q42 Whitefield is from which country?

- (a) India
- (b) Japan
- (c) Canada

(d) Cannot be determined

Key: **D**

Itemcode : **PB1105**

Q43 Who is the person from Australia?

:

- (a) Bradman
- (b) John
- (c) Whitefield
- (d) Cannot be determined

Key: **A**

Passage:

Answer the question on the basis of information given below:

In a locality there are five buildings - A, B, C, D and E. All of them are of different heights. The tallest building has five floors, the next tallest has four floors, and so on, till the shortest has only one floor. Further it is known that:

(i) The sum of the number of floors of A and E is equal to the sum of the number of floors of C and D.

(ii) C is not the tallest building and A is not the shortest building

(iii) C is taller than A and D is taller than B

Itemcode : **PB1113**

Q44 Which building is the shortest?

:

- (a) B
- (b) A
- (c) C
- (d) Either B or A

Key: **A**

Itemcode : **PB1114**

Q45 Building C has _____ floors.

:

- (a) 2
- (b) 3
- (c) 4
- (d) 5

Key: **B**

Itemcode : **PB1061**

Q46 If the cell is placed in hypertonic solution, what will happen?

:

- (a) Endosmosis
- (b) Exosmosis
- (c) Deplasmolysis
- (d) No change

Key: **B**

Itemcode : **PB1062**

Q47 The soil is physiologically dry when:

:

- (a) It has no hygroscopic water
- (b) Conc. of soil solution is higher than cell
- (c) Soil temp. is 4 Degree Celsius
- (d) Excess of CO₂ in soil

Key: **B**

Itemcode : **PB1063**

Q48 The rate of absorption of water is slow at temperature near freezing point because:

:

- (a) It is mainly a metabolic process
- (b) Cell membranes become more permeable
- (c) Growth of cell stops
- (d) Transpiration is retarded

Key: **D**

Itemcode : **PB1064**

Q49 If chlorophyll is burnt, what element will be left?

:

- (a) Fe
- (b) Mn
- (c) Mg
- (d) Na

Key: **C**

Itemcode : **PB1065**

Q50 In succulent plants, the stomata open in night and close by day, which of the following would be best hypothesis to explain the mechanism of stomatal action in night only?

- (a) CO₂ used up, increased the pH results in accumulation of sugars
- (b) CO₂ accumulates, reduces pH, stimulates enzymes resulting in accumulation of sugars
- (c) Increase in CO₂ concentration., conversion of organic acids into starch resulting in the increased uptake of potassium ions and water
- (d) Low CO₂ conc., accumulation of organic acids resulting in the increased conc. Of cell sap

Key: **D**

Itemcode : **PB1066**

Q51 Which of the following statements is true with regard to the light reaction of photosynthesis?

:

- (a) In PS-II the reaction centre chlorophyll-a has an absorption peak at 700 nm, hence is called P₇₀₀
- (b) In PS-I the reaction centre chlorophyll-a has an absorption peak at 680 nm, hence is called P₆₈₀
- (c) the splitting of water molecules is associated with PS-I
- (d) PS-I and PS-II are involved in Z scheme

Key: **D**

Itemcode : **PB1067**

Q52 Which is the correct sequence in Kreb's cycle?

:

- (a) Iso-citric acid → oxalosuccinic acid → α-ketoglutaric acid
- (b) Oxalosuccinic acid → Iso-citric acid → α-ketoglutaric acid
- (c) α-ketoglutaric acid → Iso-citric acid → oxalosuccinic acid
- (d) Iso-citric acid → α-ketoglutaric acid → oxalosuccinic acid

Key: **A**

Itemcode : **PB1068**

Q53 The cut surface of an apple fruit turn brown when in contact with air. If the cut apple is dipped in ascorbic acid (Vitamin C solution), browning does not occur. This is because ascorbic acid:

- (a) Overcomes cell injury caused by cutting
- (b) Inhibits activity of polyphenol oxidase (PPO)
- (c) Prevents release of polyphenol from damaged cells
- (d) Prevents drying of cut surface

Key: **B**

Itemcode : **PB1069**

Q54 A plant bends towards the source of light when exposed to the light on only one side. Which of the following is the best explanation of the phenomenon?

- (a) They need light for photosynthesis
- (b) The apices of their stems are attracted by light
- (c) Some auxin accumulates on the shaded side to induce greater cell elongation on that side.
- (d) Light stimulates the cells on the illuminate side to increase in length.

Key: **C**

Itemcode : **PB1070**

Q55 Pick out the correct statements.

:

- A. Cytokinins specially help in delaying senescence
- B. Auxins are involved in regulating apical dominance
- C. Ethylene is specially useful in enhancing seed germination
- D. Gibberellins are responsible for immature falling of leaves

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

Key: **D**

Itemcode : **PB1071**

Q56 Which of the statements regarding the six principles of International code of botanical nomenclature is correct?

:

- (a) The application of names of taxonomic groups (taxa) is determined by means of nomenclature type
- (b) The nomenclature of taxonomic group is based upon priority of publication
- (c) Scientific names of taxonomic groups are treated as Latin regardless of their derivation
- (d) All of the above

Key: **B**

Itemcode : **PB1072**

Q57 Match the following:

:

List –I	List- II
I. Carolus Linnaeus	A. Swedish naturalist
II. Engler	B. English botanist
III. Bentham	C. Greek naturalist
IV. Theophrastus	D. German botanist

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

Key: **C**

Itemcode : **PB1073**

Q58 Outermost layers of cell wall of Gram +ve and Gram -ve bacteria are of:
 :

- (a) Glycoproteins and Lipoproteins respectively
 (b) Lipoproteins and Muramic acid respectively
 (c) Lipoproteins and Teichoic acid respectively
 (d) Teichoic acid and Lipopolysaccharides respectively

Key: **D**

Itemcode : **PB1074**

Q59 Mycelium of Rhizopus is:
 :

- (a) Unbranched coenocytic
 (b) Branched uninucleate
 (c) Unbranched uninucleate
 (d) Branched coenocytic

Key: **D**

Itemcode : **PB1075**

Q60 The sexual reproduction in Spirogyra can be described as:
 :

- (a) Morphological anisogamy and physiological isogamy
 (b) Morphological as well as physiological isogamy
 (c) Morphological as well as physiological anisogamy
 (d) Morphological isogamy and physiological anisogamy

Key: **D**

Itemcode : **PB1076**

Q61 Selected the correctly matched ones:
 :

A. Phaeophyceae	Mannitol
B. Rhodophyceae	<i>Dictyota</i>
C. Chlorophyceae	Non-motile gametes
D. Rhodophyceae	r-phycoerythrin

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

Key: **D**

Itemcode : **PB1077**

Q62 What is the correct sequence of different zones of atmosphere from below?
 :

- (a) Troposphere, Stratosphere, Mesosphere, Ionosphere

- (b) Stratosphere, Troposphere, Ionosphere, Mesosphere
- (c) Mesosphere, Stratosphere, Troposphere, Ionosphere
- (d) Ionosphere, Mesosphere, Stratosphere, Troposphere

Key: **A**

Itemcode : **PB1078**

Q63 Correct definition of ecosystem is:

:

- (a) A community of organisms interacting with one another
- (b) The abiotic component of a habitat
- (c) The part of the earth and its atmosphere which inhabits living organism
- (d) The community of the organisms together with the environment in which they live.

Key: **D**

Itemcode : **PB1079**

Q64 The term 'biosphere' is used for the zone of earth where life exists:

:

- (a) On the lithosphere surface
- (b) In the hydrosphere
- (c) In the lithosphere and hydrosphere
- (d) In the lithosphere and hydrosphere and atmosphere

Key: **D**

Itemcode : **PB1080**

Q65 Match the following:

:

- I. Intraspecific interaction
- II. Interspecific interaction
- III. Habitat
- IV. Biome

- A. Interaction between the individual of the same species
- B. Interaction between the individual of the different species
- C. Natural surroundings
- D. Community of animals and plants

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

Key: **C**

Itemcode : **PB1081**

Q66 If phytoplankton's are destroyed from sea then:

:

- (a) Algae will get more space to grow
- (b) Primary consumers will grow luxuriantly
- (c) Food chain will be affected
- (d) No affect will be seen

Key: **C**

Itemcode : **PB1082**

Q67 Consider the following four statements (A-D) and select the correct option

:

- (a) Single cell Spirulina can produce large quantities of food rich in protein, minerals, vitamins, etc
- (b) Body weight wise the microorganisms Methylophilus methylotrophous may be able to produce several times more proteins than the cows per day
- (c) Common button mushrooms are very rich source of vitamin C
- (d) Rice variety has been developed which is very rich in Calcium

Key: **D**

Itemcode : **PB1083**

Q68 Okazaki segments are:

:

- (a) Segments of DNA capable of replications
- (b) Segments of a chain of nucleotides formed during replication of DNA
- (c) Segments of a chain of nucleotides formed during transcription
- (d) Segments of a gene which undergo recombination

Key: **B**

Itemcode : **PB1084**

Q69 In DNA 10% guanine is present. How much thymine is present?

:

- (a) 10%
- (b) 40%
- (c) 80%
- (d) 20%

Key: **B**

Itemcode : **PB1085**

Q70 Which of the following statement is not consistent with the double helical model of DNA?
:

- (a) The amount of A+T/C+G is not constant in different organisms
 - (b) Density decreases on heating
 - (c) A=C, C=G
 - (d) According to X-Ray diffraction it is a double helical structure
- Key: **C**

Itemcode : **PB1086**

Q71 The lac operon consists of:
:

- (a) Four regulatory gene only
 - (b) One regulatory gene and three structural gene
 - (c) Two regulatory gene and two structural gene
 - (d) Three regulatory and three structural gene
- Key: **D**

Itemcode : **PB1087**

Q72 A cross between a plant heterozygous for two factors and a plant recessive for both the factors, gives a phenotypic ratio of:
:

- (a) 9:1:1:7
 - (b) 9:3:3:1
 - (c) 1:1:1:1
 - (d) 1:7:7:1
- Key: **C**

Itemcode : **PB1088**

Q73 A dwarf pea plant was treated with GA₃, it grew as pure tall plant. If it is crossed with pure tall plant, than phenotypic ratio of F₁ is likely to be:

- (a) All dwarf
 - (b) 50 %tall, 50% dwarf
 - (c) 75% tall, 25 % dwarf
 - (d) All tall
- Key: **D**

Itemcode : **PB1089**

Q74 Suppose DNA has base sequenced as UAC, GAC, AGC, CGC, ACA, AAA and due to mutation only 1st base is deleted.
: What is the effect on coding?

- (a) 1st aminoacid will be different
 - (b) There will be 1 amino acid less
 - (c) Complete change in type and sequence of aminoacids
 - (d) No change.
- Key: **C**

Itemcode : **PB1090**

Q75 Suppose DNA has base sequence as AAG GAG GAC CAA CCA, which one represents frame shift mutation?
:

- (a) AAG GAG GAC CAA CCA
 - (b) AAG AAG GAC CAA CCA
 - (c) AAG GAG ACC AAC CAA
 - (d) GAG GAG GAC CAA CCA
- Key: **C**