



**CBRT - 2020
Question Paper Grid**

Government of Goa

10 October 2020

[Menu](#)

Set Name

Subjects

Display

Associate Professor(Pharmaceutical Chemistry)

Itemcode : CA1076

Q1 : In the conversion of Pyrrole to 3-chloropyridine, the reactive intermediate involved is a

- (a) nitrene
- (b) carbene
- (c) carbanion
- (d) carbocation

Itemcode : CA1077

Q2 : 'An organic reaction that is used to convert an electron rich aromatic ring to an aryl aldehyde using DMF, an acid chloride, and aqueous work-up' is known by which of the following named reaction?

- (a) Shapiro reaction
- (b) Doebner Miller reaction
- (c) Beckmann rearrangement
- (d) Vilsmeier - Haack reaction

Itemcode : CA1078

Q3 : In this named reaction, phenol is converted to 2-hydroxy benzaldehyde and the reactive intermediate is dichlorocarbene ,

- (a) Riemer Tiemann reaction
- (b) Perkin reaction
- (c) Mannich reaction,
- (d) Shapiro reaction

Itemcode : CA1079

Q4 : Which of the following reaction is an enantioselective chemical reaction to prepare 2,3-epoxyalcohols from primary and secondary allylic alcohols?

- (a) Perkin reaction
- (b) Sharpless epoxidation
- (c) Mitsunobu reaction
- (d) Smiles rearrangement

Itemcode : CA1080

Q5 : In this named reaction involving a dicarbonyl, an aldehyde, and ammonia, viewed as occurring in two stages, in the first stage, the dicarbonyl and ammonia condense to give a diimine with unusual orientation of N-H groups:

- (a) Knorr's pyrazole synthesis
- (b) Debus-Radziszewski imidazole synthesis
- (c) Pinner pyrimidine synthesis
- (d) Combe's quinoline synthesis

Itemcode : CA1081

Q6 : In which of the following drugs, the two isomers (R & S) compete with each other to bind the enzyme binding site resulting in the inhibition of the metabolism of the other isomer?

- (a) Warfarin
- (b) Propaphenon
- (c) Propranolol
- (d) Felodipine

Itemcode : CA1082

Q7 : Which of the following exhibits optical activity?

- (a) Propan-2-ol
- (b) 2-chlorobutane
- (c) 1-chlorobutane
- (d) Butan-2-one

Itemcode : CA1083

Q8 : Which of the following antiviral drugs is an adenosine analog that inhibits DNA polymerase

- (a) Vidarabine
- (b) Zidovudine

- (c) Lamivudine
(d) Ritonavir

Itemcode : CA1084

Q9 : Which of the following drugs was first synthesized by the reaction of 4-amino-5-nitrosopyrimidine with phenylacetonitrile?

- (a) Sulfamerazine
(b) Alprazolam
(c) Triamterene
(d) Trimethoprim

Itemcode : CA1085

Q10 : Reaction of 3-chloro-N-phenylbenzeneamine with sulphur followed by alkylation with 3-o-dimethylaminopropyl chloride in the presence of sodium amide yields

- (a) Alprazolam
(b) Sulfamerazine
(c) Chlorpromazine
(d) Ketoconazole

Itemcode : CA1086

Q11 : Which of the following is an inhibitor of xanthene oxidase enzyme and prevent the synthesis of the uric acid and is useful in treatment of gout?

- (a) Allopurinol
(b) Albuterol
(c) Pyrimethamine
(d) Dimercaprol

Itemcode : CA1087

Q12 : Tolmetin-glycine prodrug is an example for

- (a) Bipartite
(b) Tripartite
(c) Mutual
(d) Bioprecursor

Itemcode : CA1088

Q13 : Bambuterol is the prodrug of this drug used to treat asthma, by converting its phenolic groups to Bis-dimethyl-carbamate which otherwise undergoes rapid pre-systemic metabolism.

- (a) Terbutaline
(b) Salbutamol
(c) Albuterol
(d) Levalbuterol

Itemcode : CA1089

Q14 : Which of the following is an irreversible enzyme inhibitor type?

- (a) Competitive inhibitor
(b) Non competitive inhibitor
(c) uncompetitive inhibitor
(d) Suicide inhibitor

Itemcode : CA1090

Q15 : The peptide-based protease inhibitor Ritonavir is an example for

- (a) Competitive inhibitor
(b) Non competitive inhibitor
(c) uncompetitive inhibitor
(d) Suicide inhibitor

Itemcode : CA1091

Q16 : Which of the following is an example for thioamide bioisosteric replacement Cyano imino group?

- (a) Metiamide and cimetidine
(b) Cholesterol and diazacholesterol
(c) Procainamide and procaine
(d) Uracil and 5-Fluorouracil

Itemcode : CA1092

Q17 : Which of the following drugs is not considered as fragmented analog of a lead molecule?

- (a) Levorphanol
(b) Metazocine
(c) Meperidine
(d) Codeine

Itemcode : CA1093

Q18 Which among the following antitubercular drugs, the (S,S)-(+)-enantiomer is used to treat tuberculosis while the (R,R)-(?)enantiomer is known to cause blindness.

- (a) Isoniazid
- (b) Ethambutol
- (c) Rifampin
- (d) Ethionamide

Itemcode : CA1094

Q19 While designing the covalently binding enzyme inhibitors, this is the only common amino acid that has an electrophilic side chain and it also can be modified with suitable nucleophilic agents.

- (a) Serine
- (b) Threonine
- (c) Tyrosine
- (d) Arginine

Itemcode : CA1095

Q20 Which of the following is an example for rationally designated mechanism-based inactivator drug?

- (a) Lisinopril
- (b) Vigabatrin
- (c) sulfanilamide
- (d) Cimetidine

Itemcode : CA1096

Q21 The antidepressant drug tranylcypromine acts by inhibiting the enzyme

- (a) Xanthine oxidase
- (b) MAO
- (c) ACE
- (d) GABA transaminase

Itemcode : CA1097

Q22 Which of the following drugs does not inhibit HMG-CoA reductase enzyme?

- (a) Rosuvastatin
- (b) Lovastatin
- (c) Atorvastatin
- (d) Losartan

Itemcode : CA1098

Q23 Identify the drug-receptor interaction theory that states "even in the absence of drugs, a receptor is in a state of dynamic equilibrium between an activated form (Ro), which is responsible for the biological response, and an inactive form (To)"

- (a) Occupation theory
- (b) Induced fit theory
- (c) Activation-Aggregation Theory
- (d) Macromolecular Perturbation Theory

Itemcode : CA1099

Q24 Which of the following anticancer drugs inhibits topoisomerase -II and is useful in the treatment of small cell lung cancer, non-Hodgkin's lymphoma

- (a) Etoposide
- (b) 5-Fluorouracil
- (c) Busulfan
- (d) Methotrexate

Itemcode : CA1100

Q25 Inhibitors of this enzyme are used as diuretics and in the therapy of glaucoma

- (a) Mono Amine Oxidase
- (b) Xanthine oxidase
- (c) GABA transaminase
- (d) Carbonic anhydrase

Itemcode : CA1101

Q26 Which is the correct order of increasing wave number of the stretching vibrations of - (1) C-H (aldehyde), (2) N-H (alcohol), (3) C=O (ester), and (4) C≡C (alkyne)?

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

Itemcode : CA1102

Q27 Lycopene ($\lambda_{\text{max}} = 469 \text{ nm}$) present in tomatoes absorbs which among the following range of visible light?

- :
- (a) Red
 - (b) Green
 - (c) Orange
 - (d) Blue

Itemcode : CA1103

Q28 How many signals does the compound 3,3-Dimethyl butanal have in ^1H NMR and ^{13}C NMR spectra?

- :
- (a) five ^1H signals and six ^{13}C signals
 - (b) five ^1H signals and four ^{13}C signals
 - (c) three ^1H signals and six ^{13}C signals
 - (d) three ^1H signals and four ^{13}C signals

Itemcode : CA1104

Q29 Which hydrogen of 1-Bromo-2-pentene shows the largest chemical shift (downfield) in its PMR spectrum?

- :
- (a) the H on C-1
 - (b) the H on either C-2 or C-3
 - (c) the H on C-4
 - (d) the H on C-5

Itemcode : CA1105

Q30 The term Vicinal coupling describes-

- :
- (a) coupling between ^1H nuclei in an alkane.
 - (b) coupling between ^1H nuclei in an alkene.
 - (c) coupling between ^1H nuclei attached to adjacent C atoms.
 - (d) coupling between ^1H nuclei attached to the same C atom.

Itemcode : CA1106

Q31 In the mass spectrum of the ethyl propanoate, a typical peak would be expected from a McLafferty 'rearrangement' at m/z of__

- (a) 28
- (b) 45
- (c) 74
- (d) 87

Itemcode : CA1107

Q32 Which of the following peaks (m/z) does not appear in the mass spectrum of hexane?

- :
- (a) 36
 - (b) 43
 - (c) 57
 - (d) 86

Itemcode : CA1108

Q33 Through which of the following injectors liquid samples can be injected into the column in GC?

- :
- (a) Gas tight syringe
 - (b) Micro-syringe
 - (c) Rotary sample valve
 - (d) Solid injection syringes

Itemcode : CA1109

Q34 Which of the following is not true about 'Hydraulic capacitance' flow control system used in HPLC?

- :
- (a) Maintains constant flow
 - (b) It is irrespective of solvent compressibility
 - (c) Can be useful only for less viscous liquids
 - (d) Smoothens high pressure pump pulsations

Itemcode : CA1110

Q35 In _____ the LC effluent passed through the heated probe and emerges as a jet of vapor and small droplets flowing into the desolvation chamber at low pressure.

- (a) TSP Interface
- (b) Continuous Flow FAB Interface
- (c) DLI Interface
- (d) Frit FAB Interface

Itemcode : CA1111

Q36 Which of the following best explains the antioxidant action of vitamin E?

:

- (a) It is lipid soluble and can react with free radicals in the bloodstream resulting from nitric oxide formation by vascular epithelium
- (b) It forms a stable radical that can be reduced back to active vitamin E by reaction with glutathione and glutathione peroxidase
- (c) It forms a stable radical that can be reduced back to active vitamin E by reaction with vitamin C
- (d) It is a radical, so when it reacts with another radical a non-radical product is formed

Itemcode : CA1112

Q37 The 3 D's (Dermatitis, Diarrhea, Dementia) are seen in the deficiency of:

:

- (a) Thiamine
- (b) Riboflavin
- (c) Niacin
- (d) Pyridoxine

Itemcode : CA1113

Q38 IUPAC name of Thiamine is-

:

- (a) 3-[3-[(2-methyl-4-aminopyrimidin-5-yl)methyl]-4-methyl-1,3-thiazol-3-ium-5-yl]ethyl chloride
- (b) 2-[3-[(4-amino-2-methylpyrimidin-5-yl)methyl]-4-methyl-1,3-thiazol-3-ium-5-yl]ethyl chloride
- (c) 3-[3-[(2-methyl-4-aminopyrimidin-5-yl)methyl]-4-methyl-1,3-thiazol-3-ium-5-yl]ethanol
- (d) 2-[3-[(4-amino-2-methylpyrimidin-5-yl)methyl]-4-methyl-1,3-thiazol-3-ium-5-yl]ethanol

Itemcode : CA1114

Q39 US Pharmacopeial G13 column comprises of ___ phase?

:

- (a) Cyanopropylpolysiloxane
- (b) Dimethylpolysiloxane oil
- (c) Sorbitol
- (d) Neopentylglycol succinate

Itemcode : CA1115

Q40 Which amongst the following is not a hyphenated instrument?

:

- (a) GC-MS
- (b) LC-NMR
- (c) GC-CE
- (d) CE-MS

Itemcode : CA1116

Q41 The number of stereocentres in Paclitaxel molecule are-

:

- (a) Nine
- (b) Ten
- (c) Eleven
- (d) Twelve

Itemcode : CA1117

Q42 In Docetaxel, _____ is present on the phenylpropionate side chain instead of the benzamide in paclitaxel.

:

- (a) tert-butyl carbamate ester
- (b) n-decyl alkyl amido ester
- (c) n-dodecyl alkyl amino ester
- (d) iso-propyl carbamate ester

Itemcode : CA1118

Q43 Etoposide is ?

:

- (a) a-D-glucoside and furonaphthodioxole
- (b) b-D-glucoside and furonaphthodioxole
- (c) a-D-glucoside and furonaphthotrioxole
- (d) b-D-glucoside and furonaphthotrioxole

Itemcode : CA1119

Q44 Teniposide act by-

:

- (a) inhibiting topoisomerase I
- (b) inhibiting topoisomerase II
- (c) intercalating into DNA
- (d) binding strongly to DNA

Itemcode : CA1120

Q45 The major mechanism by which plasmodia assumes resistance to chloroquine is-

:

- (a) due to change in the structure of the active receptor

- (b) on account of increased expression of p-glycoprotein
- (c) increase in activity of DNA repair mechanism
- (d) due to induction of inactivating enzyme

Itemcode : CA1121

Q46 Primaquine intermediate 6-methoxy-8-nitroquinoline, is synthesized by Skraup reaction from-
:

- (a) 4-methoxy-2-nitroaniline and glycerol in the presence of sulfuric acid
- (b) 2-methoxy-4-nitroaniline and glycerol in the presence of sulfuric acid
- (c) 6-methoxy-8-nitroaniline and glycerol in the presence of sulfuric acid
- (d) 6-methoxy-4-nitroaniline and glycerol in the presence of sulfuric acid

Itemcode : CA1122

Q47 Pyrimethamine, chemically is ?
:

- (a) 5-(4-chlorophenyl)-4-ethylpyrimidine-2,4-diamine
- (b) 4-(5-chlorophenyl)-5-ethylpyrimidine-1,3-diamine
- (c) 5-(4-chlorophenyl)-6-ethylpyrimidine-2,4-diamine
- (d) 3-(4-chlorophenyl)-5-ethylpyrimidine-2,4-diamine

Itemcode : CA1123

Q48 β -lactam containing 2,3-dihydro-1H-pyrrole ring is named as-
:

- (a) Penem
- (b) Carbapenem
- (c) Carbapenam
- (d) Carbacephem

Itemcode : CA1124

Q49 Monobenzyl ester of 3-Thienylmalonic acid is first converted to an acid chloride with thionyl chloride, and further
: reacted with 6-Aminopenicillanic acid (6-APA). Resulting intermediate on Hydrogenolysis with Pd/C gives-

- (a) Cloxacillin
- (b) Ticarcillin
- (c) Carbenicillin
- (d) Methicillin

Itemcode : CA1125

Q50 The compound fentanyl is an analogue of-
:

- (a) Phenyl piperidine
- (b) Benzmorphin
- (c) Propionanilide
- (d) Morphinan

Itemcode : CA1136

Q51 The term Ground Stroke is associated with which of the following games?
:

- (a) Cricket
- (b) Badminton
- (c) Tennis
- (d) Draughts

Itemcode : CA1137

Q52 The saffron colour in the national flag signifies
:

- (a) truth and peace
- (b) courage and Sacrifice
- (c) faith and chivalry
- (d) None of the above

Itemcode : CA1138

Q53 The significance of the lotus symbol is
:

- (a) culture and civilisation
- (b) peace
- (c) justice
- (d) sign of mourning, in protest

Itemcode : CA1139

Q54 The Reliance Cup was earlier known by the name of
:

- (a) Benson and Hedges Cup
- (b) McDowell's Challenge Cup
- (c) Prudential Cup
- (d) Rothmans Cup

Itemcode : CA1140

Q55 'Apsara' is the name of India's first
:

- (a) Railway Locomotive
- (b) Helicopter
- (c) Nuclear Reactor
- (d) Ground Battle Tank

Itemcode : CA1141

Q56 Raja Ravi Verma, was famous in which of the fields?
:

- (a) Painting
- (b) Politics
- (c) Dance
- (d) Music

Itemcode : CA1142

Q57 The first hand glider was designed by...?
:

- (a) Leonardo DaVinci
- (b) The Wright brothers
- (c) Francis Rogallo
- (d) Galileo

Itemcode : CA1143

Q58 In which Indian state did the game of Polo originate?
:

- (a) Meghalaya
- (b) Rajasthan
- (c) Manipur
- (d) West Bengal

Itemcode : CA1144

Q59 Which of the following is a Manipuri version of Hockey?
:

- (a) Khong Kangjei
- (b) Hiyang Tanaba
- (c) Yubi Lakpi
- (d) None of above

Itemcode : CA1145

Q60 Who is to be conferred with the 2020 Swami Vivekananda Karmayogi Award?
:

- (a) Jadav Payeng
- (b) Rajendra Singh
- (c) Vandana Shiva
- (d) Sunita Narain

Itemcode : CA1126

Q61 The failure of palm readers to identify the causal connection between the lines on a person's hands and his or her life
: indicates that the theory of palm reading is:

- (a) Internally incoherent.
- (b) Inadequate.
- (c) Unfruitful.
- (d) Dysfunctional.

Itemcode : CA1127

Q62 As a result of the application of Ockham's razor, naturalistic explanations are preferred to supernatural explanations
: because:

- (a) Naturalistic explanations lead to entirely new ways of viewing the world.
- (b) Naturalistic explanations are preferred by atheists.
- (c) Supernatural explanations are inconsistent with well confirmed scientific theories.
- (d) Supernatural explanations are always contaminated by religious beliefs.

Itemcode : CA1128

Q63 If January 1st, 2007 is Monday, what was the day on 1st January 1995?
:

- (a) Sunday
- (b) Monday
- (c) Friday
- (d) Saturday

Itemcode : CA1129

Q64 Statements

- : I All students are ambitious
 II All ambitious persons are hard working
 Conclusions:
 i. All students are hard-working
 ii. All hardly working people are not ambitious
 Which of the following is correct?

- (a) Only (i) is correct
 (b) Only (ii) is correct
 (c) Both (i) and (ii) are correct
 (d) Neither (i) nor (ii) are correct

Itemcode : **CA1130****Q65** Read the given argument and answer the question that follows.

:

Argument

Here's another reason to get vaccinated against measles - researchers have found that the measles virus makes kids' immune systems "forget" most of what they have learned, leaving children vulnerable to other diseases for as long as three years. "Our findings suggest that measles vaccines have benefits that extend beyond just protecting against measles itself," said Michael Mina, a medical student at Emory University who worked on the study while doing postdoctoral research at Princeton University.

Which of the following, if true, would most strengthen the argument made in favour of the vaccination against measles?

- (a) Studies have suggested that vaccines can have broader benefits than simply protecting against a single disease.
 (b) If you get measles, three years later, you could die from something that you would not die from had you not been infected with measles.
 (c) Various scientists are working to find out whether reducing measles incidence will cause a drop in deaths from other infectious diseases.
 (d) The findings, published in the journal Science, help explain why deaths and illnesses from a range of diseases plummet in countries after they introduced measles vaccine campaigns.

Itemcode : **CA1131****Q66** Read the given argument and answer the question that follows.

:

Arguments

It's no surprise that, in an era of rapid change, island nations will be among the first to feel the effects of climate change. A common sentiment shared among the islands of the Pacific is that they suffer a great deal from the phenomenon while contributing the least to the problem. These islands are located in a region that's sandwiched by two of the world's largest carbon-emitting countries, the United States and China, which means that any concerns they voice on the global stage often come out as mere whispers.

Which of the following, if true, would support the 'common sentiment' mentioned in the passage?

- (a) Plastic pollution in oceans is an enormous problem globally but the island nations suffer the most due to this, as plastic harms the very aquatic life that island nations depend on for their economic progress.
 (b) Carbon emissions are directly proportional to the size of the population of a country and the resulting increase in sea-level poses the greatest threat to the low-lying island nations, despite their relatively small populations.
 (c) Island nations have banded together in the international arena to call on other countries to limit their emissions in order to curtail the devastating impacts of climate change on their vulnerable nations.
 (d) The island nations are more vulnerable to the physical impacts of climate change due to a number of socioeconomic stressors like high population growth, over-pumping of groundwater, pollution, etc.

Itemcode : **CA1132****Q67** The following table shows the information related to population and a few other parameters for 5 states of India for the year 2010.

:

States	Population (in Lakhs)	Rural Population (in %)	Literacy Rate (in %)	No. of Women per 1000 Men
P	720	40	50	920
Q	400	70	55	914
R	420	55	45	970
S	350	64	44	958
T	640	30	60	990

In rural

region of state P, all women i.e. 188 Lakh are literate and all men are illiterate. The literacy rate among urban men in state P is at least?

- (a) 40%
 (b) 0%
 (c) 4%
 (d) None of these

Itemcode : **CA1133****Q68**

:

The following table shows the information related to population and a few other parameters for 5 states of India for the year 2010.

States	Population (in Lakhs)	Rural Population (in %)	Literacy Rate (in %)	No. of Women per 1000 Men
P	720	40	50	920
Q	400	70	55	914
R	420	55	45	970
S	350	64	44	958
T	640	30	60	990

If the

literate population, staying in urban area, of each state is maximum possible, then in how many states urban population can be 100% literate?

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

Itemcode : CA1134

Q69 In each state 10% of rural population migrates to urban areas of the same state. If this migrant population is illiterate then which state will have lowest literacy rates in its urban areas?

- (a) Q
(b) R
(c) S
(d) Cannot be determined

Itemcode : CA1135

Q70 If 70% of literate population of each state lives in urban areas, then which state has the lowest percentage of literacy in rural areas?

- (a) Q
(b) R
(c) S
(d) Cannot be determined

Passage:

The Indian economy rests on agricultural base and for decades and generations the picture that India Presented to the world was one of famine and of an unchanging peasantry reluctant to depart from the cultural practices handed down to them by their forefathers. Indian agriculture , it was said, was a gamble on the rains. Some visionaries and civil servants had sought to change all this. Their experiments at rural transformation were watched with amused interest and if their efforts did not meet with more than temporary and isolated success, it was because they were operating individuals and in very limited area within what was basically an inhospitable and unresponsive administrative environment. The scale of effort was enlarged during the Second World War with the launching of the "grow more food campaign". But the administrative structure remained largely unaltered.

It was to change all this, that the Community Development Programme was introduced. There were three problems that had to be tackled. First, if the farmer was to change methods, he had to be educated to see the possibility to change through actual demonstration in his field at no cost to himself. If the farmer tilled the land in the same manner as his father before him, it was because tradition had no optimized risks and the farmer had no margin on the basis of which to gamble on strange new practices and risk not merely a financial loss but his very survival. Second, there was no one agency to whom the farmer could turn for assistance or advice. If he wanted better seeds, he had to go to the Agriculture Department. For irrigation he had to knock at the doors of the Irrigation Department. Roads were the responsibility of the Public Works Department. Land problems had to be taken up with the revenue authorities and so on. In short, the administration was totally fragmented at the point which touched the life of the farmer. Coordination was difficult and the totality of the farmer's problem could never be adequately comprehended, let alone ameliorated, by the administration. Third, even if the administration sought to promote rural transformation and the farmers, were willing, how was the new knowledge to be transmitted not merely to every village but to each cultivator?

The Community Development Programme sought to provide answers to these three problems. Something in the nature of the single-line administration was established under a chain of command running through the District Development Officer and Block Development Officer to the multipurpose village level worker. Instead of having to go to several departments to get anything done, the farmer could now deal with a single community development authority with which all the executive agencies involved in rural development were associated. The many thousands of field demonstrations laid out under the Community Development Programme demonstrated the possibility of change in a manner that carried conviction and at no risk to the peasant. Once the farmer was persuaded, his alleged age-old conservatism vanished and the next problem was to satisfy his ever-growing demands. Meanwhile, the establishment of a National Extension Service first time created a permanent transmission system for the propagation and demonstration of new ideas and methods, not just in isolated pockets, but over very wide areas.

Itemcode : CA1146

Q71 Which of the following was the objective of launching Community Development Programme?

:

- (a) To eradicate illiteracy of the rural folk
(b) To switch over to me mechanisation in agro sector
(c) To solve the diverse problems of farmers on a single platform
(d) To minimize farmer's financial losses and risks

Itemcode : CA1147

Q72 For the people in the world , the image of Indian Village is that of

:

- (a) an opponent of traditionalism and conservatism
- (b) a rule-bound, conservative and culture-groomed person
- (c) a visionary and a perfect gambler
- (d) an inhospitable and unresponsive person

Itemcode : CA1148**Q73** The experiments undertaken by some visionaries were aimed at

:

- (a) Changes in administrative environment
- (b) temporary and isolated success
- (c) evolution of new operational strategies
- (d) upliftment of peasants and rural development

Itemcode : CA1149**Q74** What was the probable disadvantage of the fragmented administration to the farmers?

:

- (a) Loss of time, money and energy
- (b) exposure to novel techniques and strategies
- (c) Availability of manures, fertilisers and seeds
- (d) Uncertainty of rains during the crop season

Itemcode : CA1150**Q75** What was the impact of these demonstrations on the farmers?

:

- (a) Their unreasonable demands increased disproportionately
- (b) Their tendency to cling to past traditions vanished
- (c) National Extension Service was established by them
- (d) Their standard of living remained unaltered