

ONLINE RECRUITMENT EXAMINATION FOR CATEGORY II POSTS (PHASE - II)

(With reference to advertisement no. Advt. No.02/2022-FCI Category-II published in employment news on 03.09.2022)

INFORMATION HANDOUT

This handout contains details pertaining to various aspects of the online exam you are going to undertake and important instructions about related matters. You are advised to study the handout carefully as it will help you in preparing for the examination.

The on-line examination will comprise the following objective type multiple choice tests as stated below :

Manager (General / Depot / Movement / Accounts / Technical / Civil Engineering / Electrical Mechanical Engineering)

PAPER – I					
Sr. No.	Name of the Test	Number of Questions	Maximum Marks	Version	Duration
1	English Language	25	25	English	20 Minutes
2	Reasoning Ability	25	25	English and Hindi	20 Minutes
3	Numerical Aptitude	25	25	English and Hindi	20 Minutes
4	General Studies* comprising of Indian History, Indian Economy, Geography – 25 & General Science up to Class X th level – 10 questions AND Current Affairs – 5 & Computer Awareness – 5 questions	45	45	English and Hindi	30 Minutes
	TOTAL	120	120		90 Minutes

* The nature of questions will be such that they do not require specialized study of any discipline.

Manager (Accounts / Technical / Civil Engineering / Electrical Mechanical Engineering)

PAPER – II				
Sr. No.	Name of the Test	Number of Questions	Maximum Marks	Duration
I	General Accounting and Finance for candidates applying for Manager (Accounts)	60	120	60 Minutes
	OR			
II	Agriculture, Food Science and Technology, Agricultural Engineering & Bio Technology for candidates applying for Manager (Technical)			
	OR			
III	Civil Engineering / Electrical Mechanical Engineering for candidates applying for Manager (Civil Engineering / Electrical Mechanical Engineering)			

Please note that Paper I & II for Post Code D, E, F, G will be held in single sitting.

Only for the post of Manager (Hindi – Post Code H) - Paper III & IV will be held in single sitting.

PAPER – III					
Sr. No.	Name of the Test	Number of Questions	Maximum Marks	Version	Duration
1	General Hindi	20	20	Hindi	20 Minutes
2	General English	20	20	English	20 Minutes
3	General Awareness	20	20	English and Hindi	10 Minutes
4	General Intelligence	20	20	English and Hindi	20 Minutes
5	Computer Awareness (with specific reference to MS Word, Excel, Powerpoint and Internet)	20	20	English and Hindi	10 Minutes
6	Current Affairs	20	20	English and Hindi	10 Minutes
	TOTAL	120	120		90 Minutes

PAPER – IV			
Sr. No.	Name of the Test	Marks	Duration
(i)	One passage for translation from Hindi to English	30	90 Minutes
(ii)	One passage for translation from English to Hindi	30	
(iii)	One essay in Hindi	30	
(iv)	One Precis writing in English	30	
		120	90 Minutes

For appearing in Paper IV Manager (Hindi) candidate should be able to use the following keyboard layouts :

1. Inscript or 2. Remington (GAIL)

No keyboard other than Inscript and Remington (GAIL) shall be provided for Hindi typing.

For Descriptive Paper (Paper IV) questions will be displayed on the screen of your computer. Answers are to be typed using the keyboard. Before start of typing answers to questions in Descriptive Paper, please check all key functions of the keyboard.

You may have to be at the venue for atleast one hour more than total duration of the exam which includes the time required for logging in, collection of the call letters, going through the instructions etc. All tests except Language based tests will be provided in English and Hindi. You can attempt any question within the total time for the paper. All the objective type questions will have multiple choices. Out of the five answers to a question only one will be the correct answer. **You have to select the most appropriate answer and 'mouse click' that alternative which you feel is appropriate/ correct. The alternative/ option that you have clicked on will be treated as your answer to that question. There will be no penalty for wrong answers marked by you. However, you are advised not to mark answers by random guessing.**

The Scores of Online Examination will be obtained by adopting the following procedure :

- (i) Number of questions answered correctly by a candidate in each objective test is considered for arriving at the Corrected Score.
- (ii) Scores so obtained by a candidate are made equivalent to take care of the minor difference in difficulty level, if any, in each of the objective tests held in different sessions to arrive at the Equated Scores*

*Scores obtained by candidates on any test are equated to the base form by considering the distribution of scores of all the forms.

- (iii) Scores on total is reported with decimal points upto two digits.

Please note that the types of questions in this handout are only illustrative and not exhaustive. In the actual examination you will find questions of a higher difficulty level on some or all of these types and also questions on the types not mentioned here. Difficulty level of the questions will correspond to the Manager level posts.

Some sample questions are given below.

ENGLISH LANGUAGE / GENERAL ENGLISH

Q.1-2. Choose the appropriate word for each blank that best fits the meaning of the sentence.

Q.1. He neglects attending lectures though college is quite _____ his house.
(1) far (2) away (3) further (4) near (5) distant

Q.2. The police stormed in and _____ the hostages.
(1) shot (2) captured (3) buried (4) informed (5) freed

Q.3-6. Read each sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is (5) i.e. 'No error'. (Ignore the errors of punctuation, if any).

Q.3. A small piece / of bread is / better than / having nothing to eat. No error
(1) (2) (3) (4) (5)

Q.4. Your television set / is superior to / our television set / by all respects. No error
(1) (2) (3) (4) (5)

Q.5. I have been / living in Hyderabad / at my uncle / since my birth. No error
(1) (2) (3) (4) (5)

Q.6. My brother-in-laws / who live in Mumbai / have come / to stay with us. No error
(1) (2) (3) (4) (5)

Q.7. Direction : In each of the following questions, select from amongst the five alternatives, the word nearest in meaning to the word given in capitals.

LETHAL (1) light (2) dangerous (3) deadly
(4) cruel (5) thoughtless

REASONING ABILITY

Q.1-2. Read the following information to answer the given question:

Each of the six people viz. A, B, C, D, E and F has a different height. D is the second shortest. E is taller than F and B but shorter than C. B is not the shortest. C is not the tallest.

Q.1. Who amongst the following is the third tallest?
(1) C (2) B (3) A (4) E (5) F

Q.2. If B is 164 cm tall and the second tallest person is 167 cm tall, what is the possible height of E (in cm)?
(1) 162 cm (2) 166 cm (3) 169 cm (4) 148 cm (5) 170 cm

Q.3-4. These questions consists of a question and two statements numbered I and II given below it. You have to decide whether the data given in the statements are sufficient to answer the question. Read both the statements and choose the most appropriate option.

- (1) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question
(2) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question
(3) The data **either** in statement I alone or statement II alone are sufficient to answer the question
(4) The data even in both statements I and II together are **not** sufficient to answer the question
(5) The data in **both** statements I and II together are necessary to answer the question

Q.3. Five boxes, P, Q, R, S and T are kept one above the other. Which box is kept second from the top?

- (I) R is kept second from the bottom. No box is kept between R and T. Only two boxes are kept between T and P.
(II) As many boxes are kept above S as below S. Only one box is kept between S and Q. P is kept immediately below Q.

- Q.4.** Amongst L, M, N, O, P and Q sitting in a straight line with equal distance between each other and facing north. Who sits at the extreme left end of the line?
- (I) More than three people sit between L and P. N sits second to the left of Q. Q is neither an immediate neighbour of P nor L.
- (II) Only three people sit to the left of Q. O sits to the immediate left of Q. Only one person sits between O and L.

NUMERICAL APTITUDE

- Q.1.** At 10 paise each, how many paise will 6 lemons cost ?
 (1) 6 (2) 10 (3) 60 (4) 61 (5) 610
- Q.2.** Which of the following can be exact multiple of 4 ?
 (1) 27114 (2) 58204 (3) 48402 (4) 32286 (5) Other than those given as options
- Q.3-6.** In each of the following questions one number is missing. The place where the number is missing is shown by a question mark (?). You have to find out which one of the answers shown against 1, 2, 3 and 4 can replace the question mark. If none of these four can replace the question mark, you will indicate (5) i.e. 'Other than those given as options' as your answer.
- Q.3.** $42 + 73 + 137 = ?$
 (1) 352 (2) 252 (3) 242 (4) 142 (5) Other than those given as options
- Q.4.** $20 \times \frac{1}{2} = ?$
 (1) 4 (2) 5 (3) 12 (4) 20 (5) Other than those given as options
- Q.5.** $0.7 \times 0.5 = ?$
 (1) 35 (2) 0.35 (3) 0.0035 (4) 0.035 (5) Other than those given as options
- Q.6.** $15 : 25 :: 6 : ?$
 (1) 9 (2) 10 (3) 30 (4) 15 (5) Other than those given as options

GENERAL STUDIES COMPRISING OF INDIAN HISTORY, INDIAN ECONOMY, GEOGRAPHY & GENERAL SCIENCE UPTO CLASS 10TH LEVEL, CURRENT AFFAIRS, COMPUTER AWARENESS

- Q.1.** Which of the following stands for I in RBI ?
 (1) India (2) International (3) Insurance (4) Income (5) Institute
- Q.2.** The famous Gomateshwar idol is in which of the following states ?
 (1) Maharashtra (2) Madhya Pradesh (3) Uttar Pradesh (4) Orissa (5) Karnataka
- Q.3.** To combat the menace of money laundering, which of the following financial institutions has introduced the 'Know Your Customer' Scheme ?
 (1) IDBI (2) RBI (3) NABARD (4) SIDBI (5) Other than those given as options
- Q.4.** Every component of your computer is either _____
 (1) software or CPU / RAM (2) hardware or software
 (3) application software or system software (4) an input device or output device
 (5) Other than those given as options
- Q.5.** Which of the following is a popular Computer Language ?
 (1) A + (2) BA + (3) C ++ (4) CA + (5) Other than those given as options

GENERAL HINDI

- प्र.1.** नीचे दिये गये प्रश्न में एक वाक्य दिया गया है जिसके कुछ अंश रेखांकित कर दिये गये हैं। इस रेखांकित भाग में भाषा व्याकरण या शब्दों के गलत प्रयोग जैसी कोई त्रुटि हो सकती है। वाक्य के नीचे चार विकल्प सुझाये गये हैं जिनमें से कोई एक वाक्य के रेखांकित अंश के स्थान पर रख देने से वह वाक्य की त्रुटि दूर कर उस वाक्य को एक सार्थक वाक्य बना देता है। वह विकल्प कौनसा है यह जात कीजिये और उसे ही उत्तर के रूप में अंकित कीजिये। यदि रेखांकित अंश में कोई त्रुटि नहीं है और उसे बदलने की आवश्यकता नहीं है, तो उत्तर (5) होगा अर्थात् 'संशोधन आवश्यक नहीं'।

राजू की सारी बात नाना चुप्पी लगा कर सुनते रहे।

- (1) मौन व्रत धारण किये गुनते रहे (2) चुपचाप गुनगुनाते रहे
 (3) ध्यानपूर्वक सुनते रहे पर बोले कुछ नहीं (4) ने यों सुनी जैसे वह किसी और से बात कर रहा हो
 (5) संशोधन आवश्यक नहीं

प्र.2-3. नीचे दिये गये प्रश्नों में से हरेक में एक वाक्य दिया गया है जिसे (1), (2), (3) और (4) भागों में बांटा गया है। वाक्य को पढ़ कर जात कीजिये कि वाक्य में शब्दों के गलत प्रयोग, वर्तनी या व्याकरण की कोई त्रुटि तो नहीं है। त्रुटि अगर होगी तो वाक्य के किसी एक ही भाग में होगी। इस भाग का क्रमांक ही आपका उत्तर है। अगर वाक्य त्रुटिहीन है तो उत्तर (5) दीजिये अर्थात् त्रुटि नहीं।

प्र.2. जिस गाँव में बूढ़ा बूढ़ी रहते थे / उस गाँव को और आस पास की / अनेक गाँवों को एक दैत्य /

- (1) बहुत परेशान करता था। (2) त्रुटी नहीं (3) त्रुटी नहीं (4) त्रुटी नहीं (5) त्रुटी नहीं

प्र.3. चट्टान के ऊपर / एक जहरीला साँप सो रहा था / और उसके मुँह से /

- (1) विष की एक एक बूँदें टपक रही थी। (2) त्रुटी नहीं (3) त्रुटी नहीं (4) त्रुटी नहीं (5) त्रुटी नहीं

प्र.4-5. नीचे दिये गये प्रत्येक प्रश्न में एक वाक्य दिया गया है जिसमें दो रिक्त स्थान दिये गये हैं। वाक्य के नीचे पाँच उत्तर विकल्प सुझाये गये हैं जिनमें से प्रत्येक में दो-दो शब्द दिये गये हैं। आप वाक्य को पढ़ कर तय कीजिये कि किस उत्तर विकल्प के दोनों शब्द उसी क्रम से वाक्य के रिक्त स्थानों को इस प्रकार पूर्ण कर सकते हैं कि वह एक अर्थपूर्ण वाक्य बन जाये। उस उत्तर विकल्प का क्रमांक ही आपका उत्तर है।

प्र.4. तुम चाहो तो उनकी इस _____ को चुटकियों में हल कर सकती हो, पर तुम ऐसा क्यों करने लगी; तुम्हारा तो उनके साथ जन्मजात _____ है।

- (1) बात, शत्रुता (2) समस्या, बैर (3) परेशानी, मित्रता (4) चिंता, दुश्मनी (5) अनिच्छा, उलझन

प्र.5. विमान की इस देरी के कारण आपको जो _____ हुई उसके लिये हमें _____ हैं, कह देने मात्र से ही यात्रियों की परेशानी तो दूर नहीं हो जाती है।

- (1) असुविधा, खेद (2) देरी, चिंता (3) चिंता, दुःख (4) विलंब, खुशी (5) दुविधा, खेद

GENERAL AWARENESS

Q.1. Who among the following is the director of the film "Lagaan" ?

- (1) Sanjay Leela Bhansali (2) Vasant Govarikar (3) Karan Johar
(4) B. R. Chopra (5) Other than those given as options

Q.2. Why we cannot see the objects in the dark ?

- (1) These objects emit light
(2) These objects absorb light
(3) There is no light coming to our eyes from these objects
(4) The light gets obstructed by the darkness.
(5) Other than those given as options

Q.3. Which of the following samples of water can be termed as pure water ?

- (1) Water in which alum is added (2) Clean water
(3) Filtered water (4) No other substance added to it
(5) Other than those given as options

Q.4. Which of the following marketing strategies is NOT suitable for rural markets?

- (1) Economy pricing (2) Classy packaging (3) Promotional pricing
(4) Small unit/low pricing (5) Value for money pricing

Q.5. Which of the following theories of Personal Selling emphasizes that the buyer's needs or problems receive major attention, and the salesperson's role is to help the buyer to find solutions?

- (1) "Impulse buying" theory of selling (2) 'AIDAS' theory of personal selling
(3) "Buying Formula" theory of selling (4) "Behavioural Equation" theory of selling
(5) "Right Set of Circumstances" theory of selling

GENERAL INTELLIGENCE

Q.1. In the series given below count each 5 which is not immediately preceded by 3 but is immediately followed by 7. How many such 5's are there ?

- 1 5 7 3 5 7 4 7 3 7 2 5 6 5 8 5 7 4 5 6 5 5 7 1 5 7 7 5 5
(1) 1 (2) 2 (3) 3 (4) 4 (5) 5

- Q.2.** The town of Paranda is located on Green lake. The town of Akram is West of Paranda. Tokhada is East of Akram but West of Paranda. Kakran is East of Bopri but West of Tokhada and Akram. If they are all in the same district, which town is the farthest West ?
 (1) Paranda (2) Kakran (3) Akram (4) Tokhada (5) Bopri
- Q.3.** STAMMERING is related to SPEECH in the same way as DEAFNESS is related to which of the following ?
 (1) EAR (2) HEARING (3) DUMB (4) SILENCE (5) TALK
- Q.4.** Sapling is related to Tree as _____
 (1) Horse is related to Mare (2) River is related to Brook
 (3) Bud is related to Flower (4) Student is related to Teacher
 (5) Tree is related to Furniture
- Q.5.** Which letter should be in place of the question mark in the following series ?
 G H J M ? V
 (1) T (2) S (3) R (4) U (5) Q

COMPUTER AWARENESS

- Q.1.** Every component of your computer is either _____
 (1) software or CPU / RAM (2) hardware or software
 (3) application software or system software (4) an input device or output device
 (5) Other than those given as options
- Q.2.** The function of CPU is _____
 (1) to provide external storage of text
 (2) to create a hard copy
 (3) to create a new software
 (4) to read, interpret and process the information and instruction
 (5) Other than those given as options
- Q.3.** Oracle is _____
 (1) Application Software (2) Date Base (3) Antivirus Software
 (4) Programme (5) Other than those given as options
- Q.4.** Which of the following is the shortcut to print a word document ?
 (1) Press 'Ctrl + P' Keys together (2) Press 'Ctrl + F' Keys together
 (3) Press 'Shift + P' Keys together (4) Press 'Shift + Print' Keys together
 (5) Press 'Tab + Print' Keys together

There may be some other types of questions also.

CURRENT AFFAIRS

- Q.1.** 'Mandi House' is _____
 (1) Prime Ministers' Residence
 (2) a prize winning film directed by Shyam Benegal
 (3) the office of the Director General of Doordarshan
 (4) the head office of the Ministry of Commerce
 (5) the place where the Central Production Centre of Doordarshan is located.
- Q.2.** Monetary policy is concerned with _____
 (1) changes in the supply of money
 (2) buying and selling of financial instruments
 (3) reducing unemployment
 (4) changes in the supply of money & reducing unemployment
 (5) Other than those given as options
- Q.3.** Mr. Jair Bolsonaro who was the chief guest at 2020 Republic day celebrations is the president to which of the following countries ?
 (1) Brazil (2) Argentina (3) Uruguay (4) Kenya (5) Other than those given as options
- Q.4.** Which of the following is NOT a recognised key skill of management ?
 (1) Conceptual skills (2) Human skills (3) Technical skills
 (4) Writing skills (5) None of those given as options

PAPER IV – DESCRIPTIVE PAPER (ENGLISH)

Q.1. Translate the following passage from Hindi to English :

जैसे कि खाद्य सुरक्षा को अंतराष्ट्रीय स्तर पर समझा जाता है उसमें संतुलित आहार, साफ पीने का पानी, पर्यावरणीय स्वच्छता और प्राथमिक स्वास्थ्य के देखभाल की भौतिक, आर्थिक और सामाजिक पहुंच शामिल होती है। ऐसी परिभाषा बाजार में भोजन की उपलब्धता, आवश्यक भोजन को खरीदने का सामर्थ्य और शरीर में खाने को अवशोषित तथा उपयोग करने की क्षमता पर समवर्ती ध्यान शामिल करेगी। इस कारण खाद्य सुरक्षा में खाद्य और अखाद्य कारक (अर्थात् पेय, जल, पर्यावरणीय स्वास्थ्य और प्राथमिक स्वास्थ्य संबंधी देखभाल) शामिल हैं। राष्ट्रीय खाद्य सुरक्षा विधेयक, 2011 की मंशा को लोक सभा समिति की रिपोर्ट में उल्लिखित किया गया है जो यह व्यक्त करता है कि "खाद्य सुरक्षा का तात्पर्य व्यक्तिगत स्तर पर घरेलु मांग और किफायती दर पर खाने की पर्याप्त मात्रा हेतु पहुंच है। दवाओं और उपकरणों हेतु यह स्वास्थ्य सुरक्षा और मेक इन इंडिया का समाधान करता है।

Q.2. Translate the following passage from English to Hindi :

In the past thirty years, drugs have been discovered that prevent and cure physical disease and reverse the disturbances that occur in some mental illness. Excitement over what drugs can do has led people to believe that any ailment, infective or psychic, can be relieved by taking a pill. At the first sign of nervousness, they try to pep pills. Medical journals now advertise tranquillizers, and other mood-altering drugs; doctors prescribe them; and the public expects miracles from them. In such an atmosphere, it is not surprising that the drug abuse has spread.

Q.3. Write an essay on any **ONE** of the following topics in Hindi in about 400 words.

1. अशिक्षितता का संपूर्ण निर्मूलन करने के तीन कारगर उपाय बताइए। आपके सुझाये हुए उपाय कितने प्रभावशाली हैं यह स्पष्ट कीजिए।
2. हमेशा ऐसा कहा जाता है कि कंप्यूटरीकरण बेरोजगारी को बढ़ावा देता है। क्या आप इससे सहमत हैं ? स्पष्ट कीजिए।

Q.4. Write a précis of the following passage in about 120 words, and give it a title.

Christian Reed, a project manager, has worked at the Tata Steel plant—Britain's biggest—for 11 years. His father worked in the local steel industry for 40 years, and his grandfather was a foundry worker. "It's very difficult to contemplate losing the plant," he says. "It would be like losing a member of the family."

The fate of his job and those of about 4,300 other Port Talbot steelworkers, as well as Britain's loss-making steel industry in general, have become the most poignant part of the political row that has erupted in Britain since Tata Steel, Britain's biggest producer, said in late March that it planned to sell or close its operations in the country. Opposition politicians have demanded that the government engineer a rescue, either by erecting high tariff walls against cheap steel imports, as America has done, or by going for some sort of nationalisation, as Italy has attempted with the ill-starred Ilva plant in the heel of the country. On April 5th a potential rescuer, Sanjeev Gupta of Liberty House, a commodity-trading company, said he was interested in buying the Port Talbot business, though he wants plenty of government sweeteners before doing so. He has called Britain's steel industry "probably the worst in the world."

There are few parts of the rich world where steel remains a good business, however. Port Talbot's woes are indicative of a global problem—especially in places where makers of unspecialised steel face competition from cheaper producers.

In the eyes of many, including the Welsh steelworkers, the main bogeyman is China, where steel output has ballooned. The country has produced more steel in two years than Britain since 1900, according to the International Steel Statistics Bureau, and is indeed awash with excess capacity. But this is part of a phenomenon that extends across the developing world. The OECD, a club mostly of rich countries, reckons that in the four years to 2017 steelmaking capacity will have grown by 50% in the Middle East, 20% in Africa and 10% in Latin America.

Meanwhile, the China-led slowdown in developing economies and low oil prices, which have hit the use of steel in rigs and pipelines, mean that demand is severely lagging supply. Even in India, which is supposed to be the bright spot of the global steel market, demand growth is unlikely to recover to levels in the years before 2010 when it embarked on a debt-fuelled infrastructure construction binge.

PROFESSIONAL KNOWLEDGE

Questions shall be based on the syllabus given below :

I. Manager (Accounts) (Post Code-D) :

1. **Basic Accounting concept including preparation of books of accounts and Accounting Standards.**
2. **Financial Management:** (a) Analysis of Financial statement (b) Budgeting & Budgetary control (c) Working Capital management (d) Capital Budgeting & Ratio Analysis.
3. **Taxation:** (a) Income Tax including filing of return, TDS, Advance Tax etc.(b) Goods & Services Tax.
4. **Auditing:** (a) Auditing Concepts and Methods (b) Internal & External Audit of Companies.
5. **Commercial Laws :** (a) Contract Act (b) Companies Act (c) Sales of Goods Act (d) Negotiable Instrument Act (e) Consumer Protection Act (f) RTI Act.
6. **Basic of Computers :** (a) Operating System (b) Browsers (c) Email (d) Memory (Internal, External, portable) (e) Chats (f) Office (Word, PowerPoint, Excel) (g) Networks.

II. Manager (Technical) (Post Code-E) :

1. **Agricultural-** Statistics of Indian Agriculture (Cereals & Pulses), Food & Agriculture Microbiology, Nutrition (Animal & Plant), Postharvest care of Cereals & Pulses, Food grain Protection, Agriculture Extension.
2. **Biotechnology-** Microbes: Beneficial & Harmful, Genetic Engineering, Biotechnological Principles, Economic Biotechnology, Pathogens & Control, Recent trends.
3. **Entomology-** Basic Entomology, Economic Entomology, Beneficial and harmful insects, integrated Post Management (IPM), Storage Grain Insect pest, Vertebrate Pests.
4. **Chemistry-Physical Chemistry :** Structure of Atoms, Chemical Bonding, Radioactivity; Inorganic Chemistry, Periodic Table, Basics Metals & Non-metals, Organic Chemistry, Basics of alkanes, alkenes, alkynes, alcohols, aldehydes and acids , Biochemistry (Carbohydrates, Proteins & Fats).
5. PFA Act, 1964, Food Safety and Standards Act, 2006/ Food Safety and Standards Regulations 2011, Right to information Act, 2005

III. Manager (Civil Engineering) (Post Code-F) :

1. **Engineering Materials & Construction Technology**

Selection of site for the construction, Planning and orientation of buildings, Ventilation and air conditioning, acoustics. Building and highway materials, Stones, Bricks timber, Lime, Cement Mortar, Plain and reinforced Cement Concrete, Bitumen, Asphalt.

2. **Building Materials:** Stone, Lime, Glass, Plastics, Steel, FRP, Ceramics, Aluminium, Fly Ash, Basic Admixtures, Timber, Bricks and Aggregates Classification, properties and selection criteria, Cement etc.

3. **Construction Practice, Planning and Management:** Construction Planning, Equipment, site investigation, Tendering Process and Contract Management, Quality Control, Productivity, Operation Cost; Land acquisition, Labor safety and welfare.

4. **Surveying**

Surveying, Leveling, temporary and permanent adjustments of levels and Theodolite, Use of theodolite, tachometry. Trigonometrically and Triangulation survey. Contours and contouring, Computations of areas and volumes.

5. **Soil/Geotechnical Engineering**

Classification of soil, Field identification tests, water content, specific gravity, voids ratio, porosity, Soil permeability and its determination in the laboratory and field, Darcy's law, Flow nets its Characteristics. Local and general shear failures, design Criteria for shallow foundation, Plate load test, Stability of simple slopes.

6. **Highway and bridges:** Classification of road land width, Flexible pavements, WBM courses, sub base, sand bitumen base course, crushed cement concrete base / sub-base course. Prime and tack coats, surface dressing, Asphaltic concrete, seal coats etc.






7. **Structural Analysis:** Strength of materials, Bending moments and shear force, Analysis of determinate and indeterminate structure, Suspended Cables, Concepts and use of Computer Aided Design.
8. **Design of steel structures:** Principles of working stress methods, Design of tension and compression members, Design of beams and beam column connections, built-up sections, Girders, Industrial roofs, Principles of Ultimate load design.
9. **Design of Concrete and Masonry Structures :** Limit state design for bending, shear, axial compression and combined forces; Design of beams, Slabs, Lintels, Foundations, Retaining walls, Tanks, Staircases.
10. **Estimating, Costing and Valuation:** estimate, analysis of rates, earthwork, Brick, RCC work shuttering, Painting, Flooring, Plastering flexible pavements, Tube well, isolates and combined footings, Steel Truss, Piles etc. Valuation- Value and cost, scrap value, salvage value, assessed value, sinking fund, depreciation and obsolescence, methods of valuation.

IV. Manager (Electrical Mechanical Engineering) (Post Code-G) :

Thermodynamics, Heat Transfer, Refrigeration and Air-conditioning, Theory of Machines, Machine Design, Strength of Materials, Engineering Materials, Production Engineering , Industrial Engineering, Production Planning and Control Material handling, Electrical Circuits, Network theorems, EM Theory, Electrostatics, Material Science (Electric Materials), Electrical Measurements, Elements of Computation Power Apparatus and Systems (Power System: Power generation; Thermal, Hydro, Nuclear & Solar power production and Transmissions), Electro mechanics, Control Systems, Electronics and Communications, Estimation and costing, Use of computers.

(A) Details of the On-line Examination Pattern for objective type tests.

- (1) The examination would be conducted on-line i.e. on a computer.
- (2) All tests except Language based tests will be provided in English and Hindi.
- (3) All the questions will have multiple choices. Out of the five answers to a question only one will be the correct answer. **The candidate has to select the most appropriate answer and 'mouse click' that alternative which he/ she feels is appropriate/ correct. The alternative/ option that is clicked on will be treated as the answer to that question. Answer to any question will be considered for final evaluation, only when candidates have submitted the answers by clicking on "Save & Next" or "Mark for Review & Next".**
- (4) The clock has been set at the server and the countdown timer at the top right corner of your screen will display the time remaining for you to complete the test. When the clock runs out the exam ends by default - you are not required to end or submit your exam.
- (5) The question palette at the right of screen shows one of the following statuses of each of the questions numbered:

-  You have not visited the question yet.
-  You have not answered the question.
-  You have answered the question.
-  You have NOT answered the question, but have marked the question for review.
-  The question(s) "Answered and Marked for Review" will be considered for evaluation.

The Marked for Review status simply acts as a reminder that you have set to look at the question again. *If an answer is selected for a question that is Marked for Review, the answer will be considered in the final evaluation.*

- (6) To select a question to answer, you can do one of the following :
 - (a) Click on the question number on the question palette at the right of your screen to go to that numbered question directly. Note that using this option **does NOT save your answer** to the current question.
 - (b) Click on '**Save & Next**' to save answer to current question and to go to the next question in sequence.
 - (c) Click on '**Mark for Review and Next**' to save answer to current question, mark it for review, and to go to the next question in sequence.
- (7) To select your answer, click on one of the option buttons.
- (8) To change your answer, click another desired option button.

- (9) To save your answer, you **MUST** click on **Save & Next**.
- (10) To deselect a chosen answer, click on the chosen option again or click on the **Clear Response** button.
- (11) To mark a question for review click on **Mark for Review & Next**. *If an answer is selected for a question that is Marked for Review, the answer will be considered in the final evaluation.*
- (12) To change an answer to a question, first select the question and then click on the new answer option followed by a click on the **Save & Next** button.
- (13) Questions that are saved or marked for review after answering will ONLY be considered for evaluation.**
- (14) Test name(s) will be displayed on the top bar of the screen. Questions in a test can be viewed by clicking on the test name. The test you will view will be highlighted.
- (15) After clicking the **Save & Next** button on the last question for a test, you will automatically be taken to the first question of the (next) test.
- (16) You can attempt a question in a particular test during the time allotted to that test only.
- (17) The candidates are requested to follow the instructions of the "Test Administrator" carefully. If any candidate does not follow the instructions / rules, it would be treated as a case of misconduct/ adoption of unfair means and such a candidate would be liable for debarment from appearing for examinations for a period as decided by FCI.
- (18) The candidates may ask the Test Administrator about their doubts or questions only before the commencement of the test. No query shall be entertained after the commencement of the examination.
- (19) After the expiry of total duration of the test, the candidates will not be able to attempt any question or check their answers. The answers of the candidate would be saved automatically by the computer system even if he/ she has not clicked the "Submit" button.
- (20) Please note :**
 - (a) Candidates will not be allowed to "finally submit" unless they have exhausted the actual test time.**
 - (b) Under no circumstances should a candidate click on any of the 'keyboard keys' once the exam starts as this will lock the exam.**

During Objective Type Tests, Do not click on 'Keyboard Keys', as this will lock the exam.

Details of the On-line Examination Pattern for Descriptive Paper (Paper IV) for Manager (Hindi) :

Questions will be shown on screen and candidates will have to type answers using a keyboard. For Hindi typing, the candidates should have knowledge of the following key-board layout:

- i. Inscript
- ii. Remington (GAIL)

Please note for Descriptive type paper:

- a) No separate login is required to take the test.**
- b) This test will start automatically upon auto-submission of objective tests.**
- c) Questions will be displayed on computer monitor.**
- d) Only one question will be displayed at a time.**
- e) "While typing if you press the 'Space bar' and then press the 'Enter' key, the cursor will not move to next line. However if you press the 'Enter' key immediately after the last word, the cursor will move to the next line. You should also note in case the 'Space bar' / 'Enter' key is pressed multiple times in a single instance only a single keystroke (i.e. one space and one enter to the next line) will be taken by the system."**

Descriptive paper (Paper IV) will be administered immediately after the objective paper (Paper III).

IMPORTANT :

Although the panel as shown below appears in Objective paper (or elsewhere where not applicable) as well, it is to be used in the Descriptive paper only.



Kindly read the following instructions very carefully

- This panel will be visible with Language Selection option which is to be used during the descriptive paper (Paper IV). **PLEASE DO NOT CLICK ON “EXIT”** at any point during the examination.
- Use the panel provided to select Hindi Language for answering Hindi Descriptive Question and English Language for answering English Descriptive Question.
- **Do not click on the “Exit”** button on the panel at any point during the examination.
- Keyboard layout will be available only in English. Candidates should have the knowledge of Inscript or Remington (GAIL) mapping on the keyboard to answer the questions of Descriptive paper (Paper IV) in Hindi.

B] General Instructions:

- (1) Please note date, time and venue address of the examination given in the call letter.
- (2) You may visit the venue one day before the Online Examination to confirm the location so that you are able to report **on time** (as printed on the call letter) on the day of the examination. Late comers will not be allowed.
- (3) The call letter should be brought with you to the examination venue along with your recent photograph duly pasted on it. (Preferably the same photograph as was as uploaded).
- (4) Eligible PwBD candidates using their own Scribe in the examination are required to submit 'Scribe Declaration Form' as per Annexure-F given in the detailed advertisement, on the day of examination at Examination Venue.
- (5) You must scrupulously follow the instructions of the Test Administrator and the FCI Representative at the examination venue. If you violate the instructions you will be disqualified and will be asked to leave the examination venue.
- (6) Person with Benchmark Disability should contact the Test Centre Administrator of the test venue at least 30 minutes before the time of examination for assistance in seating, if needed.
- (7) No use of calculators (separate or with watch), books, note books scales, algorithm tables or written notes, cell phones (with or without camera facility), or any other electronic device will be allowed during the examination.
- (8) Please bring call letter with your photograph affixed thereon, currently valid photo identity proof in original and a photocopy of the same ID proof which you bring in original –**THIS IS ESSENTIAL. Please hand over call letter alongwith photocopy of photo identity proof duly stapled together to the invigilator. Currently valid photo identity proof may be PAN Card/ Passport/ Permanent Driving Licence/ Voter's Card/ Bank Passbook with photograph/ Photo Identity proof issued by a Gazetted Officer on official letterhead alongwith photograph/ Photo Identity proof issued by a People's Representative on official letterhead alongwith photograph/ Valid recent Identity Card issued by a recognised College/ University/ Aadhaar Card/ E-Aadhaar Card with a photograph/ Employee ID/ Bar Council Identity card with photograph. Please Note - Ration Card and Learner's Driving License will NOT be accepted as valid ID proof.**Please note that your name as appearing on the call letter (provided by you during the process of registration) should exactly match the name as appearing on the photo identity proof. Female candidates who have changed first/last/middle name post marriage must take special note of this. If there is any mismatch between the name indicated in the Call Letter and Photo Identity Proof you will not be allowed to appear for the examination. In case of candidates who have changed their name will be allowed only if they produce Original Gazette notification/their Original marriage certificate/affidavit in Original. Photo ID should be valid as on the day of the examination.

- (9) In order to save time on frisking (Metal Detectors will be used), the candidates are advised to follow the below mentioned dress code:
- Light clothes which cannot be used for hiding any instruments or communication devices.
 - Half sleeves but not having big buttons or any badge, brooches etc. which could be used to hide the communication device, Bluetooth, camera etc.
 - Slippers, sandals and not the shoes/socks.
 - Light Clothes without any metal items like zippers, button etc.
- However, candidates coming in customary/religious dresses PwBD should report at the centre well in advance prior to reporting time for proper frisking.
- (10) Biometric data (thumb impression) and photograph will be captured twice at the examination venue i.e. before the start of examination and after completion of examination. Decision of the Biometric data verification authority with regard to its status (matched or mismatched) shall be final and binding upon the candidates. **Refusal to participate in the process of biometric data capturing / verification on any occasion may lead to cancellation of candidature.** With regards to the same, please note the following :
- (a) If fingers are coated (stamped ink/mehndi/coloured...etc.), ensure to thoroughly wash them so that coating is completely removed before the examination day.
 - (b) If fingers are dirty or dusty, ensure to wash them and dry them before the thumb impression (biometric) is captured.
 - (c) Ensure fingers of both hands are dry. If fingers are moist, wipe each finger to dry them.
 - (d) If the primary finger (thumb) to be captured is injured/damaged, immediately notify the concerned authority in the test centre.
- (Any failure to observe these points will result in non- admittance for the examination).
- (11) Photograph and IRIS will be captured at the examination venue. The photo captured will be matched with the photo uploaded by the candidate in the application. You must NOT change your appearance from the photo uploaded by you. Decision of the IRIS data verification authority with regard to its status (matched or mismatched) shall be final and binding upon the candidates. Refusal to participate in the process of IRIS scanning / verification on any occasion may lead to cancellation of candidature. With regards to the same, please note the following:
- (a) 'LEFT EYE (IRIS)' will be captured for all the candidates.
 - (b) Candidates should remove Contact Lenses and Spectacles while capturing IRIS. Candidates are advised to avoid wearing contact lenses and prefer spectacles.
 - (c) There is no touch involved in IRIS scanning, Half feet distance between scanner and eye will be maintained. (Any failure to observe these points will result in non-admittance for the examination)
- For VI candidates, Biometric capture of right thumb impression will be done.
- (12) Your responses (answers) will be analysed with other candidates to detect patterns of similarity of right and wrong answers. If in the analytical procedure adopted in this regard, it is inferred/concluded that the responses have been shared and scores obtained are not genuine/valid, your candidature may be cancelled. Any candidate who is found copying or receiving or giving assistance or engaging in any behaviour unbecoming of a candidate will not be considered for assessment. FCI may take further action against such candidates as deemed fit by it.
- (13) Ball point pen and stamp pad will be provided at the venue. Candidates should not bring any stationary items such as pens, pencils, erasers, sharpeners etc. to the exam venue. A sheet of paper will be provided at the venue which can be used for rough work or taking down the question number you would like to review at the end of the test before submitting your answers. After the test is over you MUST hand over this sheet of paper to the Test Administrator before leaving the venue. It is mandatory for the candidates to write his/her Name, Roll Number, Registration Number, System Number on every page of Rough Sheets provided at the exam venue.
- (14) The possibility of occurrence of some problem in the administration of the examination cannot be ruled out completely which may impact test delivery and/or result from being generated. In that event, every effort will be made to rectify such problem, which may include movement of candidates, delay in test. Conduct of a re-exam is at the absolute discretion of test conducting body. Candidates will not have any claim for a re-test. Candidates not willing to move or not willing to participate in the delayed process of test delivery shall be summarily rejected from the process.
- (15) If the examination is held in more than one session, the scores across various sessions will be equated to adjust for slight differences in difficulty level of different test batteries used across sessions. More than one session are required if the nodes capacity is less or some technical disruption takes place at any centre or for any candidate.

- (16) Anyone found to be disclosing, publishing, reproducing, transmitting, storing or facilitating transmission and storage of test contents in any form or any information therein in whole or part thereof or by any means verbal or written, electronic or mechanical or taking away the papers supplied in the examination hall or found to be in unauthorised possession of test content is likely to be prosecuted.
- (17) Instances for providing incorrect information and/or process violation by a candidate detected at any stage of the selection, process will lead to disqualification of the candidate from the selection process. If such instances go undetected during the current selection process but are detected subsequently, the candidature of such candidates shall be cancelled and further action shall be taken as deemed fit.

IMPORTANT POINTS TO REMEMBER

- (i) You are advised to bring with you your Call letter with photo affixed thereon and photo ID card in **Original** and photocopy as mentioned in Point 7 of General Instructions above.
- (ii) Ball point pen, stamp pad and rough sheets will be provided at the venue. Candidates should not bring any stationary items such as pens, pencils, erasers, sharpeners etc. to the exam venue.

INSTRUCTIONS WITH REGARD TO SOCIAL DISTANCING

- 1 **Candidate is required to report at the exam venue strictly as per the time slot mentioned in the Call Letter. Late comers will not be allowed to take the test.**
- 2 **Mapping of 'Candidate Roll Number and the Lab Number' will NOT be displayed outside the exam venue, but the same will be intimated to the candidates individually at the time of entry of the candidate to the exam venue.**
- 3 Items permitted into the venue for Candidates
Candidates will be permitted to carry only certain items with them into the venue.
 - a. **Mask**
 - b. **Personal hand sanitizer (50 ml)**
 - c. **Exam related documents (Call Letter and Photocopy of the ID card stapled with it, ID Card in Original)**
 - d. **Call Letter should be brought with the Photocopy of the Photo ID stapled with it. Original ID (same as photocopy) is also to be brought for verification. The name on the ID and on the Call Letter should be exactly the same.**
 - e. **In case of Scribe Candidates - Scribe form duly filled and signed with Photograph affixed.****No other Items are permitted inside the venue.**
- 4 **Candidate should not share any of their personal belonging/material with anyone.**
- 5 **Candidate should maintain safe social distance with one another.**
- 6 **Candidate should stand in the row as per the instructions provided at venue.**
- 7 **If candidate is availing services of a scribe, then scribe also should bring their own Mask.**
- 8 **On completion of examination, the candidates should move out in an orderly manner without crowding as instructed by the venue staff.**

WISH YOU GOOD LUCK